NEW ISSUE – BOOK–ENTRY–ONLY **Ratings: See "RATINGS" herein.**

In the opinion of Co-Bond Counsel, interest on the 2020B Bonds will be excluded from gross income for federal income tax purposes under existing statutes, regulations, rulings and court decisions, subject to the conditions described in "TAX MATTERS" herein. In addition, interest on the 2020B Bonds will not be treated as an item of tax preference under Section 57 of the Internal Revenue Code of 1986, as amended (the "Code"), for purposes of the federal alternative minimum tax. Under the laws of the Commonwealth of Pennsylvania, as enacted and construed on the date hereof, interest on the 2020B Bonds is exempt from Pennsylvania personal income tax and Pennsylvania corporate net income tax. Co-Bond Counsel expresses no opinion regarding any other tax consequences related to the ownership or disposition of, or the amount, accrual or receipt of interest on, the 2020B Bonds. For a more complete discussion, see "TAX MATTERS" herein.

PENNA TURN PIKE

$241,625,000
PENNSYLVANIA TURNPIKE COMMISSION
TURNPIKE REVENUE BONDS, SERIES B OF 2020

Dated: Date of Delivery **Due: As shown on Inside Front Cover**

The Pennsylvania Turnpike Commission Turnpike Revenue Bonds, Series B of 2020 (the "***2020B Bonds***") are being issued pursuant to a Supplemental Trust Indenture No. 57 dated as of October 1, 2020 ("***Supplemental Indenture No. 57***") to the Amended and Restated Trust Indenture dated as of March 1, 2001, as previously amended and supplemented (the "***Restated Indenture***," and together with Supplemental Indenture No. 57, is referred to herein as, the "***Senior Indenture***"), between the Pennsylvania Turnpike Commission (the "***Commission***") and U.S. Bank National Association, as successor trustee (the "***Trustee***"). The 2020B Bonds are being issued for the purpose of financing: (i) various capital expenditures set forth in the Commission's current ten year capital plan, including any amendments thereto, or any prior capital plan including, but not limited to, the reconstruction of roadbed and roadway, the widening, replacing and redecking of certain bridges and/or the rehabilitation of certain interchanges (the "***Capital Project***"); (ii) a required deposit to the Debt Service Reserve Fund; (iii) a portion of the interest on the 2020B Bonds and the Commission's Turnpike Revenue Bonds, Series A of 2019; and (iv) paying the costs of issuing the 2020B Bonds.

The 2020B Bonds will be dated the date of initial issuance and delivery thereof. The 2020B Bonds will mature on December 1 of the years and bear interest from their delivery date at the rates shown on the inside cover page hereof, calculated on the basis of a year of 360 days consisting of twelve 30-day months. Interest on the 2020B Bonds will be payable on each June 1 and December 1, commencing December 1, 2020.

The 2020B Bonds are deliverable in fully registered form and, when issued, will be registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("***DTC***"), which will act as securities depository for the 2020B Bonds. Beneficial ownership interests in the 2020B Bonds will be recorded in book-entry only form in denominations of $5,000 or any multiple thereof. Purchasers of the 2020B Bonds will not receive bonds representing their beneficial ownership in the 2020B Bonds, but will receive a credit balance on the books of their respective DTC Participants or DTC Indirect Participants. So long as Cede & Co. is the registered owner of the 2020B Bonds, principal of and interest on the 2020B Bonds will be paid to Cede & Co., as nominee of DTC, which will, in turn, remit such principal and interest to the Participants and Indirect Participants for subsequent disbursement to the Beneficial Owners, as described herein. The 2020B Bonds will be transferable or exchangeable to another nominee of DTC or as otherwise described herein. So long as Cede & Co. is the registered owner of the 2020B Bonds, payments of principal and interest on the 2020B Bonds will be made directly by the Trustee under the Senior Indenture, as described herein. See "DESCRIPTION OF THE 2020B BONDS - Book-Entry Only System."

The 2020B Bonds will be subject to optional and mandatory sinking fund redemption prior to maturity as described herein. See "DESCRIPTION OF THE 2020B BONDS – Redemption of 2020B Bonds" herein.

THE 2020B BONDS ARE LIMITED OBLIGATIONS OF THE COMMISSION AND SHALL NOT BE DEEMED TO BE A DEBT OF THE COMMONWEALTH OF PENNSYLVANIA (THE "*COMMONWEALTH*") OR A PLEDGE OF THE FAITH AND CREDIT OF THE COMMONWEALTH, BUT THE 2020B BONDS SHALL BE PAYABLE SOLELY FROM THE TRUST ESTATE (AS DEFINED HEREIN) WHICH CONSISTS PRIMARILY OF TOLLS FROM THE SYSTEM (AS DEFINED HEREIN). THE COMMONWEALTH IS NOT OBLIGATED TO LEVY OR PLEDGE ANY FORM OF TAXATION WHATSOEVER FOR PAYMENT OF THE 2020B BONDS OR TO MAKE ANY APPROPRIATION FOR THE PAYMENT OF THE 2020B BONDS. THE COMMISSION HAS NO TAXING POWER.

THIS COVER PAGE CONTAINS CERTAIN INFORMATION FOR QUICK REFERENCE ONLY. IT IS NOT A SUMMARY OF THIS ISSUE. INVESTORS MUST READ THE ENTIRE OFFICIAL STATEMENT TO OBTAIN INFORMATION ESSENTIAL TO THE MAKING OF AN INFORMED INVESTMENT DECISION.

The 2020B Bonds are being offered when, as and if issued and accepted by the Underwriters, subject to prior sale, withdrawal or modification of the offer without notice, to certain legal matters being passed upon by Cozen O'Connor, Philadelphia, Pennsylvania, and Zarwin Baum DeVito Kaplan Schaer Toddy, P.C., Philadelphia, Pennsylvania, Co-Bond Counsel, and to certain other conditions. Certain legal matters will be passed upon for the Underwriters by Saul Ewing Arnstein & Lehr LLP, Philadelphia, Pennsylvania, Counsel for the Underwriters. Certain legal matters will be passed upon for the Commission by its Chief Counsel, Doreen A. McCall, Esquire, and by Dilworth Paxson LLP, Philadelphia, Pennsylvania, Disclosure Counsel to the Commission. It is anticipated that delivery of the 2020B Bonds in book-entry form will be made through the facilities of DTC in New York, New York on or about October 7, 2020.

CITIGROUP

LOOP CAPITAL MARKETS **PNC CAPITAL MARKETS LLC**

ACADEMY SECURITIES, INC./BNY MELLON CAPITAL MARKETS, LLC

BACKSTROM MCCARLEY BERRY & CO./STIFEL, NICOLAUS & COMPANY, INCORPORATED

U.S. BANCORP

This Official Statement is dated September 22, 2020.

$241,625,000
PENNSYLVANIA TURNPIKE COMMISSION
TURNPIKE REVENUE BONDS, SERIES B OF 2020

MATURITY SCHEDULE

Maturity Date (December 1)	Principal Amount	Interest Rate	Yield	Price	CUSIP† No. (709225)
2023	$ 4,135,000	5.000%	0.240%	114.928	AC0
2024	4,345,000	5.000	0.330	119.232	AD8
2025	4,560,000	5.000	0.450	123.136	AE6
2026	4,790,000	5.000	0.610	126.457	AF3
2027	5,030,000	5.000	0.780	129.290	AG1
2028	5,280,000	5.000	0.930	131.872	AH9
2029	5,545,000	5.000	1.150	133.345	AJ5
2030	5,820,000	5.000	1.270	135.414	AK2
2031	6,115,000	5.000	1.450*	133.392*	AL0
2032	6,420,000	5.000	1.540*	132.394*	AM8
2033	6,740,000	5.000	1.630*	131.406*	AN6
2034	7,075,000	5.000	1.700*	130.643*	AP1
2035	7,430,000	5.000	1.750*	130.101*	AQ9
2036	7,800,000	5.000	1.810*	129.454*	AR7
2037	8,190,000	5.000	1.870*	128.811*	AS5
2038	8,600,000	5.000	1.920*	128.279*	AT3
2039	9,030,000	5.000	1.960*	127.854*	AU0
2040	9,485,000	5.000	2.000*	127.432*	AV8

$55,015,000 5.000% Term Bond due December 1, 2045, Yield: 2.120*%; Price: 126.173*; CUSIP† 709225AW6

$70,220,000 5.000% Term Bond due December 1, 2050, Yield: 2.190*%; Price: 125.446*; CUSIP† 709225AX4

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* Yield/Price to December 1, 2030 first optional redemption date.

PENNSYLVANIA TURNPIKE COMMISSION

COMMISSIONERS

YASSMIN GRAMIAN
Secretary of Transportation
Chair

WILLIAM K. LIEBERMAN
Vice Chair

JOHN N. WOZNIAK
Secretary/Treasurer

PASQUALE T. DEON, SR
Commissioner

VACANT*
Commissioner

ADMINISTRATION

MARK P. COMPTON
Chief Executive Officer

CRAIG R. SHUEY
Chief Operating Officer

RICHARD C. DREHER
Chief Financial Officer

BRADLEY J. HEIGEL
Chief Engineer

DOREEN A. MCCALL
Chief Counsel

RAY A. MORROW
Chief Compliance Officer

U.S. BANK NATIONAL ASSOCIATION
Trustee and Authenticating Agent

PFM FINANCIAL ADVISORS LLC and PHOENIX CAPITAL PARTNERS, LLP
Co- Financial Advisors

* Wadud Ahmad, Esq. was nominated by Governor Wolf to fill the vacant Commissioner position on May 11, 2020 and confirmed by the Pennsylvania Senate on September 23, 2020.

No dealer, broker, salesman or other person has been authorized by the Commission or the Underwriters to give any information or to make any representations, other than those contained in this Official Statement, and if given or made, such other information or representations must not be relied upon as having been authorized by any or either of the foregoing. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the 2020B Bonds by any person in any jurisdiction in which it is unlawful for such person to make such offer, solicitation or sale. The information set forth herein has been obtained from the Commission, DTC and other sources which are believed to be reliable but is not guaranteed as to accuracy or completeness by, and is not to be construed as a representation by, the Underwriters. The information and expressions of opinion contained herein are subject to change without notice and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in any of the information set forth herein since the date hereof. This Official Statement will be made available through the Electronic Municipal Market Access System (***"EMMA"***), which is the sole Nationally Recognized Municipal Securities Information Repository.

The 2020B Bonds are not and will not be registered under the Securities Act of 1933, as amended, or under any state securities laws, and the Senior Indenture has not been and will not be qualified under the Trust Indenture Act of 1939, as amended, because of available exemptions therefrom. Neither the United States Securities and Exchange Commission (the ***"SEC"***) nor any federal, state, municipal, or other governmental agency will pass upon the accuracy, completeness, or adequacy of this Official Statement.

The Underwriters have provided the following sentence for inclusion in this Official Statement. The Underwriters have reviewed the information in this Official Statement in accordance with, and as part of, their responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriters do not guarantee the accuracy or completeness of such information.

No quotations from or summaries or explanations of provisions of law and documents herein purport to be complete and reference is made to such laws and documents for full and complete statements of their provisions. This Official Statement is not to be construed as a contract or agreement between the Commission and the purchasers or holders of any of the securities described herein. Any statements made in this Official Statement involving estimates or matters of opinion, whether or not expressly so stated, are intended merely as estimates or opinions and not as representations of fact. The cover page hereof, list of officials, this page and the Appendices attached hereto are part of this Official Statement.

If and when included in this Official Statement, the words "expects," "plans," "forecasts," "projects," "intends," "anticipates," "estimates," "assumes" and analogous expressions are intended to identify forward-looking statements, and any such statements inherently are subject to a variety of risks and uncertainties that could cause actual results to differ materially from those that have been projected. Such risks and uncertainties, which could affect the amount of tolls and other revenue collected by the Commission, include, among others, changes in economic conditions and various other events, conditions and circumstances, many of which are beyond the control of the Commission. Such forward-looking statements speak only as of the date of this Official Statement. The Commission disclaims any obligation or undertaking to release publicly any updates or revision to any forward-looking statement contained herein to reflect any changes in the Commission's expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

IN CONNECTION WITH THIS OFFERING, THE UNDERWRITERS MAY OVER-ALLOT OR EFFECT TRANSACTIONS THAT STABILIZE OR MAINTAIN THE MARKET PRICE OF THE 2020B BONDS AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME WITHOUT NOTICE. THE COMMISSION RESERVES THE RIGHT TO INCREASE THE SIZE OF THIS OFFERING SUBJECT TO PREVAILING MARKET CONDITIONS.

THE ORDER AND PLACEMENT OF MATERIALS IN THIS OFFICIAL STATEMENT, INCLUDING THE APPENDICES, ARE NOT TO BE DEEMED TO BE A DETERMINATION OF RELEVANCE, MATERIALITY, OR IMPORTANCE, AND THIS OFFICIAL STATEMENT, INCLUDING THE APPENDICES, MUST BE CONSIDERED IN ITS ENTIRETY. THE OFFERING OF THE 2020B BONDS IS MADE ONLY BY MEANS OF THIS ENTIRE OFFICIAL STATEMENT.

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OFFICIAL STATEMENT

$241,625,000
PENNSYLVANIA TURNPIKE COMMISSION
TURNPIKE REVENUE BONDS, SERIES B OF 2020

INTRODUCTION

This Official Statement, which includes the cover page, the inside front cover page and the Appendices hereto, is furnished by the Pennsylvania Turnpike Commission (the ***"Commission"***) in connection with the issuance of $241,625,000 aggregate principal amount of Pennsylvania Turnpike Commission Turnpike Revenue Bonds, Series B of 2020 (the ***"2020B Bonds"***).

Certain information concerning the Commission is attached hereto as APPENDIX A. Audited financial statements of the Commission for the years ended May 31, 2020 and May 31, 2019 are attached hereto as APPENDIX B. A summary of certain provisions of the Senior Indenture (as defined below) is attached hereto as APPENDIX C. The form of the opinion of Co-Bond Counsel to be delivered in connection with the issuance of the 2020B Bonds is attached hereto as APPENDIX D. A table setting forth the total debt service requirements for the Turnpike Revenue Bonds (as defined below), the Subordinate Revenue Bonds (as defined below) and the Special Revenue Bonds (as defined below) is attached hereto as APPENDIX E.

The Pennsylvania Turnpike 2018 Traffic and Revenue Forecast Study prepared by CDM Smith dated April 20, 2018 (the ***"2018 Traffic Study"***), together with a "bring down" letter developed by CDM Smith dated April 29, 2019 (the "***2019 Bring Down Letter***"), a "bring down" letter developed by CDM Smith dated May 29, 2020 (the **"*May 2020 Bring Down Letter***"), and a supplemental letter developed by CDM Smith dated September 4, 2020 (the "***September 2020 Supplemental Letter*"** and together with the 2018 Traffic Study, the 2019 Bring Down Letter and the May 2020 Bring Down Letter, the ***"Traffic Study"***) is attached hereto as APPENDIX F.

All capitalized terms not otherwise defined herein shall have the same meanings ascribed to them in the definitions set forth in APPENDIX C - "SUMMARY OF CERTAIN PROVISIONS OF THE SENIOR INDENTURE – DEFINITIONS OF CERTAIN TERMS." All references herein to the Enabling Acts (as defined below), the 2020B Bonds, the Senior Indenture and the Disclosure Agreement (as hereafter defined) are qualified in their entirety by reference to the complete texts thereof. Copies of drafts of such documents, except for the Enabling Acts, may be obtained during the initial offering period from the respective principal offices of the Underwriters and, thereafter, executed copies may be obtained from U.S. Bank National Association, as successor trustee (the ***"Trustee"***). All statements in this Official Statement involving matters of opinion, estimates, forecasts, projections or the like, whether or not expressly so stated, are intended as such and not as representations of fact. No representation is made that any of such statements will be realized.

Pennsylvania Turnpike Commission

The Commission is an instrumentality of the Commonwealth of Pennsylvania (the ***"Commonwealth"***) created by the Enabling Acts, with the power to construct, operate and maintain the System (as defined below) and to perform other functions authorized by Act 44 (as defined below). Its composition, powers, duties, functions, duration and all other attributes are derived from the Enabling Acts, as amended and supplemented from time to time. See APPENDIX A - "THE PENNSYLVANIA TURNPIKE COMMISSION." Except as provided therein, the Enabling Acts may be modified, extended, suspended or terminated at any time by further legislation.

Senior Indenture and Enabling Acts

The 2020B Bonds are being issued pursuant to a Supplemental Trust Indenture No. 57 dated as of October 1, 2020 (***"Supplemental Indenture No. 57"***) to the Amended and Restated Trust Indenture dated as of March 1, 2001, as previously amended and supplemented (the ***"Restated Indenture,"*** and together with Supplemental Indenture No. 57, the ***"Senior Indenture"***), between the Commission and the Trustee, all pursuant to and authorized by an Act of the General Assembly of Pennsylvania approved July 18, 2007, P.L. 169, No. 44 (***"Act 44"***), and various Acts of the General Assembly approved on several dates, including the Act of May 21, 1937, P.L. 774, Act 211; the Act of May 24, 1945, P.L. 972; the Act of February 26, 1947, P.L. 17; the Act of May 23, 1951, P.L. 335; the Act of August 14, 1951, P.L. 1232; and the Act of September 30, 1985, P. L. 240, No. 61 (***"Act 61"***) to the extent not repealed by Act 44, the Act of August 5, 1991, P.L. 238, No. 26 and the Act of November 25, 2013, P.L. 974, No. 89 (***"Act 89"***) (collectively, the ***"Enabling Acts"***), and the Resolutions adopted by the Commission on October 7, 2019, July 21, 2020 and September 15, 2020 (collectively, the ***"Bond Resolution"***).

Plan of Financing

The 2020B Bonds are being issued for the purpose of financing: (i) various capital expenditures set forth in the Commission's current or any prior ten year capital plan, together with any capital improvements and additions to the System as the Commission shall determine including, but not limited to, the reconstruction of roadbed and roadway, the widening, replacing and redecking of certain bridges and/or the rehabilitation of certain interchanges (the ***"Capital Project"***); (ii) a required deposit to the Debt Service Reserve Fund; (iii) a portion of the interest on the 2020B Bonds and the Commission's Turnpike Revenue Bonds, Series A of 2019; and (iv) the payment of the costs of issuing the 2020B Bonds.

DESCRIPTION OF THE 2020B BONDS

General

The 2020B Bonds will bear interest at fixed rates and will mature, subject to prior redemption, on the dates and in the amounts set forth on the inside front cover page of this Official Statement. Interest on the 2020B Bonds will accrue from the Dated Date (as defined below) and will be payable semi-annually to maturity (or earlier redemption) on each June 1 and December 1 (each an ***"Interest Payment Date"***), commencing on December 1, 2020.

The 2020B Bonds shall have a Series Issue Date which shall be the date of original issuance and first authentication and delivery against payment therefor. 2020B Bonds issued prior to the first Interest Payment Date shall have a "Dated Date" that is the same as the Series Issue Date.

Payment of Principal of and Interest on the 2020B Bonds. So long as the 2020B Bonds are in book-entry only form, the principal or redemption price of, and interest on, such 2020B Bonds is payable by check or draft mailed or wire transferred to Cede & Co., as nominee for DTC and Registered Owner of the 2020B Bonds, for redistribution by DTC to its Participants and in turn to Beneficial Owners as described under "DESCRIPTION OF THE 2020B BONDS – Book-Entry Only System."

The principal of and redemption premium, if any, and interest on the 2020B Bonds shall be payable in any coin or currency of the United States of America which on the respective dates of payment thereof is legal tender for the payment of public and private debts. The principal of and the redemption premium, if any, on all 2020B Bonds shall be payable at maturity or upon earlier redemption to the Persons in whose names such 2020B Bonds are registered on the Bond Register at the maturity or redemption date thereof, upon the presentation and surrender of such 2020B Bonds at the designated office of the Trustee or of any Paying Agent named in the 2020B Bonds.

The interest payable on each 2020B Bond on any Interest Payment Date shall be paid by the Trustee to the Person in whose name such 2020B Bond is registered on the Bond Register at the close of business on the Record Date (as defined below) for such interest, such payment to be made (i) by check or draft mailed on the applicable Interest Payment Date to such Registered Owner at the address as it appears on such Bond Register or at such other address as is furnished to the Trustee in writing by such Owner or (ii) by electronic transfer in immediately available funds, if the 2020B Bonds are held by a Securities Depository, or at the written request addressed to the Trustee by any Owner of 2020B Bonds in the aggregate principal amount of not less than $1,000,000, such request to be signed by such Owner, and containing the name of the bank (which shall be in the continental United States), its address, its ABA routing number, the name and account number to which credit shall be made and an acknowledgment by the Owner that an electronic transfer fee is payable. Any such written request must be filed with the Trustee no later than ten (10) Business Days (as hereafter defined) before the applicable Record Date preceding such Interest Payment Date. "***Business Day***" means a day other than (i) a Saturday and Sunday, (ii) a day on which the Trustee, Paying Agent or banks and trust companies in New York, New York are authorized or required to remain closed, or (iii) a day on which the New York Stock Exchange is closed.

The ***"Record Date"*** for determining the Owner entitled to payment of interest with respect to the 2020B Bonds on any given Interest Payment Date is the fifteenth (15^{th}) day (whether or not a Business Day) of the month immediately preceding such Interest Payment Date.

In the event interest on any 2020B Bond is not paid when due (***"Defaulted Interest"***), the provisions relating to Defaulted Interest under Supplemental Indenture No. 57 shall apply. See APPENDIX C - "SUMMARY OF CERTAIN PROVISIONS OF THE SENIOR INDENTURE – THE SENIOR INDENTURE" for information with respect to the payment of Defaulted Interest.

Authorized Denominations. The 2020B Bonds will be issued as fully registered bonds in authorized denominations of $5,000 and any integral multiple thereof.

Registration, Transfer and Exchange. The Trustee has been appointed Bond Registrar and as such shall keep the Bond Register at its designated office. The Person in whose name any 2020B Bond shall be registered on the Bond Register shall be deemed and regarded as the absolute Owner of such 2020B Bond for all purposes, and payment of or on account of the principal of and redemption premium, if any, and interest on any such 2020B Bond shall be made only to or upon the order of the Registered Owner thereof or his legal representative. All such payments shall be valid and effectual to satisfy and discharge the liability upon such 2020B Bond, including the interest thereon, to the extent of the sum or sums so paid.

Any 2020B Bond may be transferred only upon the Bond Register upon surrender thereof to the Trustee duly endorsed for transfer or accompanied by an assignment duly executed by the Registered Owner or his attorney or legal representative in such form as shall be satisfactory to the Trustee. Upon any such transfer, the Commission shall execute and the Trustee shall authenticate and deliver in exchange for such 2020B Bond a new 2020B Bond or 2020B Bonds, registered in the name of the transferee, of any Authorized Denomination and of the same maturity and bearing interest at the same rate.

The Commission, the Securities Depository or the Trustee may charge an amount sufficient to reimburse it for any tax, fee or other governmental charge required to be paid in connection with any such transfer or exchange. In the event any Bond Owner of a 2020B Bond fails to provide a correct taxpayer identification number to the Trustee, the Trustee may impose a charge against such Bond Owner sufficient to pay any governmental charge required to be paid as a result of such failure. In compliance with Section 3406 of the Code (hereafter defined), such amount may be deducted by the Trustee from amounts otherwise payable to such Bond Owner.

The Trustee shall not be required to (i) transfer or exchange any 2020B Bond during a period beginning at the opening of business fifteen (15) days before the day of the mailing of a notice of redemption of such 2020B Bond and ending at the close of business on the day of such mailing, or (ii) transfer or exchange any 2020B Bond so selected for redemption in whole or in part, or (iii) transfer or exchange any 2020B Bond during a period beginning at the opening of business on any Record Date for such 2020B Bond and ending at the close of business on the relevant Interest Payment Date therefor. See also "DESCRIPTION OF THE 2020B BONDS – Book-Entry Only System" herein for further information regarding registration, transfer and exchange of the 2020B Bonds.

The Senior Indenture, and all provisions thereof, are incorporated by reference in the text of the 2020B Bonds, and the 2020B Bonds provide that each Registered Owner, Beneficial Owner, Participant or Indirect Participant (as such terms are defined hereinafter), by acceptance of a 2020B Bond (including receipt of a book-entry credit evidencing an interest therein), assents to all of the provisions of the Senior Indenture.

Redemption of 2020B Bonds

Optional Redemption. The 2020B Bonds maturing on or after December 1, 2031 are subject to optional redemption by the Commission in whole or in part at any time and from time to time on or after December 1, 2030, at a redemption price of 100% of the principal amount thereof to be redeemed plus, in each case, accrued interest on the 2020B Bonds to be redeemed to, but not including, the redemption date.

Mandatory Sinking Fund Redemption.

The 2020B Bonds maturing on December 1, 2045 are subject to mandatory sinking fund redemption prior to maturity by the Commission in part on December 1 of the respective years and in the principal amounts set forth below, at a redemption price equal to 100% of the principal amount thereof, plus accrued interest to, but not including, the redemption date:

2020B Bonds Maturing December 1, 2045

Year	Amount
2041	$ 9,955,000
2042	10,455,000
2043	10,975,000
2044	11,525,000
2045*	12,105,000

*Final Maturity

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The 2020B Bonds maturing on December 1, 2050 are subject to mandatory sinking fund redemption prior to maturity by the Commission in part on December 1 of the respective years and in the principal amounts set forth below, at a redemption price equal to 100% of the principal amount thereof, plus accrued interest to, but not including, the redemption date:

2020B Bonds Maturing December 1, 2050

Year	Amount
2046	$12,710,000
2047	13,345,000
2048	14,010,000
2049	14,710,000
2050*	15,445,000

*Final Maturity

At the option of the Commission, to be exercised by delivery of a certificate of a Commission Official to the Trustee on or before the 45th day next preceding any scheduled mandatory redemption date, it may (1) deliver to the Trustee for cancellation 2020B Bonds subject to scheduled mandatory redemption on that date or portions thereof in Authorized Denominations or (2) specify a principal amount of 2020B Bonds or portions thereof in Authorized Denominations which prior to said date have been purchased or redeemed (otherwise than pursuant to this paragraph) and canceled by the Trustee at the request of the Commission and not theretofore applied as a credit against any scheduled mandatory redemption payment. Each 2020B Bond or portion thereof so delivered or not previously applied as a credit shall be credited by the Trustee at the principal amount thereof against the obligation of the Commission to redeem 2020B Bonds on the scheduled mandatory redemption date or maturity date or dates designated in writing to the Trustee by the Commission Official occurring at least forty-five (45) days after delivery of such designation to the Trustee, provided that if no such designation is made, such credit shall not be credited against such obligation (subject to the application of the provisions described in the following paragraph below).

In the event a portion, but not all, of the 2020B Bonds maturing on a particular date and bearing interest at the same rate are purchased or redeemed pursuant to optional redemption, then the principal amount of any remaining mandatory sinking fund redemptions and principal maturity applicable to such 2020B Bonds shall be proportionately reduced (subject to the Trustee making such adjustments as it deems necessary to be able to effect future redemptions of the 2020B Bonds in Authorized Denominations) unless the Commission has designated an alternate reduction of remaining mandatory sinking fund redemptions pursuant to the provisions described in the paragraph above.

See also APPENDIX C - "SUMMARY OF CERTAIN PROVISIONS OF THE SENIOR INDENTURE – THE SENIOR INDENTURE – Redemption of Bonds."

Selection of 2020B Bonds to Be Redeemed. 2020B Bonds shall be redeemed only in Authorized Denominations. Any 2020B Bonds subject to optional redemption shall be redeemed in any order of maturity and in any principal amount within a maturity and interest rate as designated by the Commission.

In the case of a partial redemption of 2020B Bonds, when any 2020B Bonds of denominations greater than the minimum Authorized Denomination are then Outstanding, then for all purposes in connection with such redemption each principal amount equal to the minimum Authorized Denomination shall be treated as though it was a separate 2020B Bond of the minimum Authorized Denomination. The particular 2020B Bonds within a maturity and interest rate to be redeemed shall be determined by the Trustee by lot or by such other method as the Trustee deems fair and appropriate.

If it is determined that a portion, but not all, of the principal amount represented by any 2020B Bond is to be selected for redemption, then upon notice of intention to redeem such portion, the Owner of such 2020B Bond or such Owner's attorney or legal representative shall forthwith present and surrender such 2020B Bond to the Trustee (i) for payment of the redemption price (including the premium, if any, and interest to the date fixed for redemption) of the principal amount called for redemption, and (ii) for exchange, without charge to the Owner thereof for a new 2020B Bond or 2020B Bonds of the aggregate principal amount of the unredeemed portion of the principal amount of such 2020B Bond. If the Owner of any such 2020B Bond shall fail to present such 2020B Bond to the Trustee for payment and exchange as aforesaid, said 2020B Bond shall, nevertheless, become due and payable on the redemption date to the extent of the principal amount called for redemption (and to that extent only).

The Trustee shall call 2020B Bonds for optional redemption and payment upon receipt by the Trustee at least forty five (45) days (or such shorter time as is reasonably acceptable to the Trustee) prior to the redemption date of a written request of the Commission. Such request shall specify the principal amount of 2020B Bonds and the maturities so to be called for redemption, the applicable redemption price or prices and the provision or provisions above referred to pursuant to which such 2020B Bonds are to be called for redemption.

Notice and Effect of Call for Redemption. Official notice of any such redemption shall be given by the Trustee on behalf of the Commission by mailing a copy of an official redemption notice by first class mail at least thirty (30) days and not more than sixty (60) days prior to the redemption date to each Registered Owner of the 2020B Bonds to be redeemed at the address shown on the Bond Register or at such other address as is furnished in writing by such Registered Owner to the Trustee. Official notice of redemption having been given as aforesaid, the 2020B Bonds or portions of 2020B Bonds so to be redeemed shall, on the redemption date, become due and payable at the redemption price specified therein, and from and after such date (unless the Commission shall default in the payment of the redemption price) such 2020B Bonds or portions of 2020B Bonds shall cease to bear interest.

For as long as DTC is effecting book-entry transfers of the 2020B Bonds, notice of redemption shall be sent to DTC as provided in the Senior Indenture. It is expected that DTC shall, in turn, notify its DTC Participants and that the DTC Participants, in turn, will notify or cause to be notified the Beneficial Owners. Any failure of DTC to advise any DTC Participant, or of any DTC Participant, Indirect Participant or nominee to notify the Beneficial Owner, of any such notice and its content or effect will not affect the validity of the redemption of the 2020B Bonds called for redemption. See "Book-Entry Only System" below.

An optional redemption notice may state (1) that it is conditioned upon the deposit of moneys, in an amount equal to the amount necessary to effect the redemption, with the Trustee no later than the redemption date and/or (2) that the Commission retains the right to rescind such notice at any time prior to the scheduled redemption date if the Commission delivers a certificate of a Commission Official to the Trustee instructing the Trustee to rescind the redemption notice (in either case, a ***"Conditional Redemption"***), and such notice and redemption shall be of no effect if such moneys are not so deposited or if the notice is rescinded as described below.

Any Conditional Redemption may be rescinded in whole or in part at any time prior to the redemption date if the Commission delivers a certificate of a Commission Official to the Trustee instructing the Trustee to rescind the redemption notice. The Trustee shall give prompt notice of such rescission to the affected Bondholders. Any 2020B Bonds subject to Conditional Redemption where redemption has been rescinded shall remain Outstanding, and the rescission shall not constitute an Event of Default.

Further, in the case of a Conditional Redemption, the failure of the Commission to make funds available in part or in whole on or before the redemption date shall not constitute an Event of Default.

Failure to give any notice to any Owner, or any defect therein, shall not affect the validity of any proceedings for the redemption of any other 2020B Bonds. Any notice mailed shall be conclusively presumed to have been duly given and shall become effective upon mailing, whether or not any Owner receives the notice.

Book-Entry Only System

The Depository Trust Company (***"DTC"***), New York, New York, will act as securities depository for the 2020B Bonds. The 2020B Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered 2020B Bond certificate will be issued in the aggregate principal amount of each maturity of the 2020B Bonds, and will be deposited with DTC.

DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.6 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants (***"Direct Participants"***) deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation (***"DTCC"***). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("***Indirect Participants"***). DTC has a Standard & Poor's rating of "AA+". The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.*

Purchases of 2020B Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the 2020B Bonds on DTC's records. The ownership interest of each actual purchaser of each 2020B Bond (***"Beneficial Owner"***) is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the 2020B Bonds are to be accomplished by entries made on the books of Direct

* The information contained on such website link is not incorporated by reference in this Official Statement.

and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in 2020B Bonds, except in the event that use of the book-entry system for the 2020B Bonds is discontinued.

To facilitate subsequent transfers, all 2020B Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co. or such other name as may be requested by an authorized representative of DTC. The deposit of 2020B Bonds with DTC and their registration in the name of Cede & Co. or such other nominee do not affect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the 2020B Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such 2020B Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of 2020B Bonds may wish to take certain steps to augment transmission to them of notices of significant events with respect to the 2020B Bonds, such as redemptions, defaults, and proposed amendments to the security documents. For example, Beneficial Owners of 2020B Bonds may wish to ascertain that the nominee holding the 2020B Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of the notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the 2020B Bonds within a maturity are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such maturity to be redeemed.

Neither DTC nor Cede & Co. (nor such other DTC nominee) will consent or vote with respect to the 2020B Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Commission as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the 2020B Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Payments of principal of, redemption premium, if any, and of interest on the 2020B Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts, upon DTC's receipt of funds and corresponding detail information from the Commission or the Trustee on payable dates in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC (nor its nominee), the Trustee, or the Commission, subject to any statutory or regulatory requirements as may be in effect from time to time. Payments of principal, redemption premium, if any, and interest to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) are the responsibility of the Commission or the Trustee, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as securities depository with respect to the 2020B Bonds at any time by giving reasonable notice to the Commission or the Trustee. Under such circumstances, in the event that a successor securities depository is not obtained, 2020B Bond certificates are required to be printed and delivered.

The Commission may decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository). In that event, 2020B Bond certificates will be printed and delivered to DTC.

The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that the Commission believes to be reliable, but is not guaranteed as to accuracy or completeness by, and is not to be construed as a representation by, the Underwriters, the Trustee, or the Commission.

NEITHER THE COMMISSION NOR THE TRUSTEE WILL HAVE ANY RESPONSIBILITY OR OBLIGATION TO DIRECT OR INDIRECT PARTICIPANTS, BENEFICIAL OWNERS OR OTHER NOMINEES OF SUCH BENEFICIAL OWNERS FOR: (1) SENDING TRANSACTION STATEMENTS; (2) MAINTAINING, SUPERVISING OR REVIEWING, OR THE ACCURACY OF, ANY RECORDS MAINTAINED BY DTC OR ANY DIRECT OR INDIRECT PARTICIPANT OR OTHER NOMINEES OF SUCH BENEFICIAL OWNERS; (3) PAYMENT OR THE TIMELINESS OF PAYMENT BY DTC TO ANY DIRECT PARTICIPANT, OR BY ANY DIRECT OR INDIRECT PARTICIPANT OR OTHER NOMINEES OF BENEFICIAL OWNERS TO ANY BENEFICIAL OWNER, OF ANY AMOUNT DUE IN RESPECT OF THE PRINCIPAL OF OR REDEMPTION PREMIUM, IF ANY, OR INTEREST ON BOOK-ENTRY 2020B BONDS; (4) DELIVERY OR TIMELY DELIVERY BY DTC TO ANY DIRECT PARTICIPANT, OR BY ANY DIRECT OR INDIRECT PARTICIPANT OR OTHER NOMINEES OF BENEFICIAL OWNERS TO ANY BENEFICIAL OWNERS, OF ANY NOTICE (INCLUDING NOTICE OF REDEMPTION) OR OTHER COMMUNICATION WHICH IS REQUIRED OR PERMITTED UNDER THE TERMS OF THE SENIOR INDENTURE TO BE GIVEN HOLDERS OR OWNERS OF BOOK-ENTRY 2020B BONDS; (5) THE SELECTION OF THE BENEFICIAL OWNERS TO RECEIVE PAYMENT IN THE EVENT OF ANY PARTIAL REDEMPTION OF BOOK-ENTRY 2020B BONDS; OR (6) ANY ACTION TAKEN BY DTC OR ITS NOMINEE AS THE REGISTERED OWNER OF BOOK-ENTRY 2020B BONDS.

In the event that the Book-Entry Only System is discontinued and the Beneficial Owners become Registered Owners of the 2020B Bonds, the 2020B Bonds will be transferable in accordance with the provisions of the Senior Indenture.

PENNSYLVANIA TURNPIKE SYSTEM

The following provides a general description of the Pennsylvania Turnpike System and certain other information relating to operations of the Commission. Such information is not complete and is qualified by reference to the more complete information set forth in this Official Statement in APPENDIX A - "THE PENNSYLVANIA TURNPIKE COMMISSION."

The present Pennsylvania Turnpike System is composed of the following: (i) the 359 mile Turnpike Mainline traversing the southern portion of Pennsylvania from east to west; (ii) the 110 mile north-south section identified as the Northeast Extension; (iii) the approximately 16 mile north-south connection, known as the Beaver Valley Expressway which intersects the Turnpike Mainline in the southwestern portion of the Commonwealth; (iv) the approximately 13 mile Amos K. Hutchinson Bypass, which adjoins the Turnpike Mainline near the New Stanton Interchange; (v) the completed portion of the Mon/Fayette Expressway project totaling approximately 48 miles; and (vi) a 6 mile section of the Southern Beltway project from PA 60 to US 22. Such roads, together with any other roads for which the

Commission has operational responsibility and is collecting Tolls (as defined below), presently constitute the ***"System."***

The Turnpike Mainline connects with the Ohio Turnpike at its western terminus and with the New Jersey Turnpike at its eastern terminus. The Turnpike Mainline commences on the eastern boundary of Pennsylvania at the Delaware River Bridge which connects the System to the New Jersey Turnpike. The Turnpike Mainline traverses the state in a westerly direction generally paralleling the southern border of the state immediately north of Philadelphia and south of Harrisburg to the vicinity of Somerset. West of Somerset, the highway follows a northwesterly direction to the northeast of Pittsburgh and to the Ohio state line, south of Youngstown, Ohio.

The System has a total of 68 toll interchanges which connect it with major arteries and population centers in its 552 mile traffic corridor. Thirty-two of the interchanges are located on the Turnpike Mainline, including barriers at the New Jersey and Ohio state lines, and 11 interchanges are situated on the Northeast Extension. The additional 25 interchanges are located on the Beaver Valley Expressway, Amos K. Hutchinson Bypass, and completed segments of the Mon/Fayette expressway and Southern Beltway. There are 17 service plazas along the System providing gasoline and diesel fuel, other automotive supplies and services, and restaurant services. Compressed natural gas refueling and electric recharging services are now available at select locations along the System. In addition to the toll interchanges, the Commission has also constructed four E-ZPass Only interchanges which are designed for the exclusive use of E-ZPass customers, located at Virginia Drive (east of the Fort Washington interchange); Street Road (west of the Bensalem interchange); Route 29 (west of the Valley Forge Interchange) and at Route 903 in Carbon County. In addition, cashless tolling locations, which use an overhead gantry to assess tolls while allowing vehicles to pass at highway speed without stopping, have been constructed and are operational at the following locations: (1) Delaware River Bridge (westbound) which is part of the 1-95 Connector in Bucks County; (2) Beaver Valley Expressway; (3) Keyser Avenue/Clark Summit; and (4) Findlay Connector. The Commission implemented cashless tolling across the System on March 16, 2020. These E-ZPass only interchanges, cashless tolling and other similarly planned interchanges are expected to reduce congestion of the System's busier interchanges and provide convenient access to industrial parks and job centers. In response to continuing adverse impacts of the COVID pandemic, the Commission has determined to continue permanent cashless tolling operations. See APPENDIX A – " THE PENNSYLVANIA TURNPIKE COMMISSION - THE TURNPIKE SYSTEM – Cashless Tolling."

Revenue Sources of the Commission

The Commission's revenues are principally derived from three separate sources: toll revenues from the operation of the System; revenue derived from a portion of the Commonwealth's Oil Franchise Tax; and revenue derived from a portion of the Commonwealth's vehicle registration fee revenues.

Tolls. The largest part of the Commission's revenues is derived from the collection of all rates, rents, fees, charges, fines or other income derived by the Commission from the vehicular usage of the System and all rights to receive the same (as defined in the Senior Indenture, collectively the ***"Tolls"***). The Tolls are pledged to secure the Commission's outstanding turnpike revenue bonds issued under the Senior Indenture (collectively, the ***"Turnpike Revenue Bonds"*** or ***"Senior Revenue Bonds"***) and other parity and subordinate obligations under the Senior Indenture (including certain interest rate swap agreements), which are subject to or may be issued under the terms of the Senior Indenture. As of the date of this Official Statement, $5,844,595,000 in aggregate principal amount of Turnpike Revenue Bonds are Outstanding under the Senior Indenture. The principal amount outstanding under the Senior Indenture on the date of this Official Statement includes (i) certain notes evidencing and securing $383,500,000 in loans (issued in eight tranches) through the Immigrant Investor Program (known as the EB-5 visa program) administered by U.S. Citizenship and Immigration Services (the "***EB-5 Loans***"), the proceeds of which are being used to fund a portion of the I-95 Interchange project and certain projects in the Commission's current or any prior ten year capital plan (see APPENDIX A - "THE PENNSYLVANIA TURNPIKE COMMISSION – CERTAIN FINANCIAL INFORMATION" for additional information on the EB-5 Loans); and (ii) $939,790,000 aggregate principal amount of variable rate obligations. Upon the issuance of the 2020B Bonds, $6,086,220,000 in aggregate principal amount of Turnpike Revenue Bonds will be Outstanding under the Senior Indenture.

Other obligations issued and Outstanding under the Senior Indenture include the Commission's obligations under various interest rate swap agreements having a total current notional amount of $786,150,000. See APPENDIX A - "THE PENNSYLVANIA TURNPIKE COMMISSION – CERTAIN FINANCIAL INFORMATION - Financial Policies and Guidelines." The Tolls are not pledged to secure the Subordinate Revenue Bonds (as defined below), the Special Revenue Bonds (as defined below), the Oil Franchise Tax Revenue Bonds (as defined below) and the Registration Fee Revenue Bonds (as defined below). Certain payments made from moneys in the General Reserve Fund which are derived from Tolls are, however, pledged on a wholly subordinate basis to secure payments due on Subordinate Revenue Bonds and Special Revenue Bonds.

Since 2009, the Commission has implemented annual increases in toll rates and other charges, as well as modifications to its commercial discounts, and expects to continue to implement future toll increases as determined by the Commission to be necessary to meet the then existing debt, capital and operational obligations of the Commission, including its payment obligations under Act 44. For a discussion of the Commission's revenue sources, including current rates and tolls and toll increases, see APPENDIX A - "THE PENNSYLVANIA TURNPIKE COMMISSION – CERTAIN FINANCIAL INFORMATION – Revenue Sources of the Commission," and " – Toll Schedule and Rates."

The Commission is permitted under the terms of the Senior Indenture to exclude certain roads, other than the Turnpike Mainline and the Northeast Extension, from the System for the purposes of the Senior Indenture which would eliminate toll revenues from such roads from the definition of Tolls under the Senior Indenture. However, the Commission currently has no plans to remove any roads from the System. In addition, under the Senior Indenture, the Commission has covenanted that it will not sell, lease or otherwise dispose of real estate or personal property comprising a portion of the System except upon compliance with the provisions of the Senior Indenture, including a determination by resolution that the Net Revenues of the Commission will not be materially adversely affected. The Commission from time to time may consider various proposals that could involve the transfer or other disposition of Commission property. Any such transfer or disposition would be required to comply with the provisions of the Senior Indenture.

Oil Franchise Tax Revenues. The Commission's second principal stream of revenues consists of that portion of the Commonwealth's oil franchise tax revenues (the ***"Oil Franchise Tax Revenues"***) allocated by statute to the Commission or the holders of the Commission's Oil Franchise Tax Revenue Bonds (the ***"Oil Franchise Tax Revenue Bonds"***), $1,038,448,217.05 of which are outstanding as of the date of this Official Statement (including compounded amounts as of June 1, 2020 for capital appreciation bonds). The Oil Franchise Tax Revenue Bonds, the proceeds of which were spent on portions of the Mon/Fayette Expressway and the Southern Beltway, are secured solely by Oil Franchise Tax Revenues. **The Oil Franchise Tax Revenues are not pledged to secure the 2020B Bonds, other Turnpike Revenue Bonds, other obligations under the Senior Indenture, the Subordinate Indenture Bonds (as defined herein) or the Registration Fee Revenue Bonds.**

Registration Fee Revenues. The Commission's third principal stream of revenues consists of that portion of the Commonwealth's vehicle registration fee revenues (the ***"Registration Fee Revenues"***) allocated by statute to the Commission or the holders of any of the Commission's Registration Fee Revenue Bonds (the ***"Registration Fee Revenue Bonds")**,* $359,825,000 aggregate principal amount of which are outstanding as of the date of this Official Statement, including a direct purchase obligation in the aggregate principal amount of $231,425,000. The Registration Fee Revenue Bonds, the proceeds of which were spent on portions of the Mon/Fayette Expressway and the Southern Beltway, are secured by Registration Fee Revenues. Registration Fee Revenue Bonds are to be paid solely from the Registration Fee Revenues. **The Registration Fee Revenues are not pledged to secure the 2020B Bonds, other Turnpike Revenue Bonds, other obligations under the Senior Indenture, the Subordinate Indenture Bonds or the Oil Franchise Tax Revenue Bonds.**

Neither the Subordinate Indenture Bonds, the Oil Franchise Tax Revenue Bonds, the Registration Fee Revenue Bonds nor any other obligations (including swaps) secured under the respective indentures governing the Subordinate Indenture Bonds, the Oil Franchise Tax Revenue Bonds or the Registration Fee Revenue Bonds are secured by or have any interest in the Trust Estate.

Pennsylvania Legislation Affecting Transportation Funding

Pursuant to Act 89, the comprehensive transportation legislation enacted by the Pennsylvania legislature, the Commission's funding obligations under Act 44 have significantly changed. For a discussion of such legislative changes and their impact on Act 44 and the Commission generally, see APPENDIX A - "THE PENNSYLVANIA TURNPIKE COMMISSION – THE COMMISSION – Enabling Acts."

Traffic and Revenue Study

The Pennsylvania Turnpike 2018 Traffic and Revenue Forecast Study prepared by CDM Smith dated April 20, 2018 (the ***"2018 Traffic Study"***), together with a "bring down" letter developed by CDM Smith dated April 29, 2019 (the "***2019 Bring Down Letter***"), a "bring down" letter developed by CDM Smith dated May 29, 2020 (the "***May 2020 Bring Down Letter***") and a supplemental letter developed by CDM Smith dated September 4, 2020 (the "***September 2020 Supplemental Letter,***" and, together with the 2018 Traffic Study, the 2019 Bring Down Letter and the May 2020 Bring Down Letter, the "***Traffic Study***") are attached hereto as APPENDIX F.

Total adjusted gross toll revenue is estimated to increase from $1.2 billion in Fiscal Year 2017-18 to $5.1 billion by Fiscal Year 2049-50, representing 6% average annualized growth. Traffic data for the Fiscal Year ended May 31, 2019 indicates a 10.9% increase in adjusted gross toll revenue, with an increase in traffic volume of 2.0%, as compared to the same period in Fiscal Year ended May 31, 2018. Preliminary, unaudited traffic data for the Fiscal Year ended May 31, 2020 indicates a 3.5% decrease in net fare revenue, with an 11.3% decrease in traffic volume, as compared to Fiscal Year 2018-19 which decreases in traffic and revenue are attributable to mitigation efforts related to the COVID-19 pandemic. The May 2020 Bring Down Letter assumed a toll increase occurring in October 2020, however, the Commission postponed the toll increase to be effective January 2021. The effect of this delay on toll revenue is addressed in the September 2020 Supplemental Letter. See APPENDIX A – "THE PENNSYLVANIA TURNPIKE COMMISSION – CERTAIN FINANCIAL INFORMATION – Five-Year Financial History." The Traffic Study should be read in its entirety for a full description of the assumptions and methodologies used to develop such forecasts. The Commission believes that it will have sufficient revenue to meet the debt, capital and operational obligations of the Commission in future years. See "CERTAIN RISK FACTORS" herein and APPENDIX F – "TRAFFIC AND REVENUE STUDY."

PLAN OF FINANCING

The 2020B Bonds are being issued for the purpose of financing: (i) various capital expenditures set forth in the Commission's current or any prior ten year capital plan, together with any capital improvements and additions to the System as the Commission shall determine, including, but not limited to, the reconstruction of roadbed and roadway, the widening, replacing and redecking of certain bridges and/or the rehabilitation of certain interchanges (the ***"Capital Project"***); (ii) a required deposit to the Debt Service Reserve Fund; (iii) a portion of the interest on the 2020B Bonds and the Commission's Turnpike Revenue Bonds, Series A of 2019; and (iv) the costs of issuing the 2020B Bonds.

ESTIMATED SOURCES AND USES OF FUNDS

SOURCES OF FUNDS	
Par Amount of 2020B Bonds	$241,625,000.00
Original Issue Premium	65,957,700.75
TOTAL SOURCES	$307,582,700.75
USES OF FUNDS	
Deposit to 2020B Account of the Construction Fund	$235,000,000.00
Deposit to Debt Service Reserve Fund	5,941,644.44
Funded Interest(1)	65,162,828.55
Costs of Issuance(2)	1,478,227.76
TOTAL USES	$307,582,700.75

(1) Consists of interest on the 2020B Bonds accruing until approximately October 7, 2023 and the interest on the Commission's Turnpike Revenue Bonds, Series A of 2019 accruing from November 1, 2020 until approximately August 15, 2022. See also APPENDIX E regarding the Commission's debt service on its Senior Revenue Bonds.

(2) Costs of Issuance include, but are not limited to, Underwriters' discount, legal fees, rating agency fees, printing expenses, Financial Advisors' fees, Trustee's fees, and other miscellaneous costs and expenses.

SECURITY FOR THE 2020B BONDS

Security

The 2020B Bonds are limited obligations of the Commission. They are secured, along with the other outstanding Turnpike Revenue Bonds and certain other Parity Obligations issued under the Senior Indenture, by the pledge by the Commission to the Trustee of (1) all Revenues (which includes all Tolls), (2) all moneys deposited into accounts or funds, other than the Rebate Fund, created by the Senior Indenture, (3) any insurance proceeds required to be deposited under the Senior Indenture, (4) all payments received pursuant to Parity Swap Agreements, and (5) all investment earnings on all moneys held in accounts and funds, other than the Rebate Fund, established by the Senior Indenture (all five of these items being collectively referred to as the ***"Trust Estate"***).

OIL FRANCHISE TAX REVENUES AND REGISTRATION FEE REVENUES, AS WELL AS OTHER SOURCES OF THE COMMISSION'S REVENUES NOT DERIVED FROM TOLLS, INCLUDING CONCESSION REVENUE, ARE EXCLUDED FROM THE TRUST ESTATE. THE TRUST ESTATE ALSO EXCLUDES ALL MONEYS HELD IN THE REBATE FUND. ANY

ADDITIONAL BONDS AND PARITY OBLIGATIONS ISSUED PURSUANT TO THE SENIOR INDENTURE (OTHER THAN SUBORDINATED INDEBTEDNESS) WILL BE EQUALLY AND RATABLY SECURED UNDER THE SENIOR INDENTURE, EXCEPT TO THE EXTENT SUCH ADDITIONAL BONDS ARE NOT DEBT SERVICE RESERVE FUND BONDS.

THE 2020B BONDS SHALL NOT BE DEEMED TO BE A DEBT OF THE COMMONWEALTH OR A PLEDGE OF THE FAITH AND CREDIT OF THE COMMONWEALTH. THE COMMONWEALTH IS NOT OBLIGATED TO LEVY OR PLEDGE ANY FORM OF TAXATION WHATSOEVER THEREFOR OR TO MAKE ANY APPROPRIATION FOR THE PAYMENT OF ANY OF THE 2020B BONDS.

Payments of the principal of and the interest on the Turnpike Revenue Bonds, including the 2020B Bonds and any Additional Bonds and payments on certain other Parity Obligations, are secured, pro rata and without preference or priority of one Turnpike Revenue Bond or Parity Obligation over another, by a valid pledge of the Trust Estate and by the Senior Indenture, except to the extent that such Bonds are not Debt Service Reserve Fund Bonds. **The 2020B Bonds have been designated as Debt Service Reserve Bonds and are secured by moneys in the Debt Service Reserve Fund.**

The Senior Indenture further provides that the Commission may not issue Additional Bonds or incur other Parity Obligations except upon satisfaction of various requirements as expressly provided in the Senior Indenture. See "SECURITY FOR THE 2020B BONDS – Additional Bonds Test" herein and APPENDIX C - "SUMMARY OF CERTAIN PROVISIONS OF THE SENIOR INDENTURE."

Rate Covenant

The Commission has agreed in the Senior Indenture that it will at all times establish and maintain schedules of Tolls for traffic over the System so that the Net Revenues of the System in each Fiscal Year will at all times be at least sufficient to provide funds in an amount not less than (1) the greater of (i) 130% of the Annual Debt Service for such Fiscal Year on account of all Applicable Long-Term Indebtedness then outstanding under the provisions of the Senior Indenture; or (ii) 100% of the Maximum Annual Debt Service on all Applicable Long-Term Indebtedness, plus (a) the amount of required transfers from the Revenue Fund to the credit of the Reserve Maintenance Fund pursuant to the Annual Capital Budget, and (b) an amount sufficient to restore any deficiency in the Debt Service Reserve Fund, if applicable, within an 18-month period; plus (2) the amount of any Short-Term Indebtedness outstanding pursuant to the Senior Indenture for more than 365 consecutive days. In addition, the amount of Net Revenues in excess of the sum of the amounts set forth in clauses (1) and (2) above, together with Other Revenues pledged to the payment of Subordinated Indebtedness, shall be sufficient to pay the Annual Debt Service for any Subordinated Indebtedness. See also "SECURITY FOR THE 2020B BONDS - General Reserve Fund" below for discussion of the rate covenant applicable to Subordinate Indenture Bonds under the Subordinate Trust Indenture, dated as of April 1, 2008, between the Commission and Wells Fargo Bank, N.A., as successor trustee, as heretofore amended and supplemented (the ***"Subordinate Indenture"***).

The Commission's failure to meet the Rate Covenant shall not constitute an Event of Default under the Senior Indenture if (i) no Event of Default occurred in debt service payments on Turnpike Revenue Bonds or other Parity Obligations as a result of such failure and (ii) the Commission promptly after determining that the Rate Covenant was not met retains a Consultant to make written recommendations as to appropriate revisions to the schedules of Tolls necessary or appropriate to meet the Rate Covenant and advises the Trustee in writing of such retention. Anything in the Senior Indenture to the contrary notwithstanding, if the Commission shall comply with the recommendations of the Consultant in respect of Tolls, it will not constitute an Event of Default under the provisions of the Senior

Indenture if the Commission fails to meet the Rate Covenant during the succeeding Fiscal Year as long as no Event of Default has occurred in debt service payments on Turnpike Revenue Bonds or other Parity Obligations. If the Commission does not comply with the recommendations of the Consultant in respect of Tolls, the Trustee may, and upon the request of the holders of not less than 25% in Principal Amount of the Turnpike Revenue Bonds then outstanding and upon being indemnified to its satisfaction shall, institute and prosecute in a court of competent jurisdiction any appropriate action to compel the Commission to revise the schedules of Tolls. The Commission covenants that it will adopt and charge Tolls in compliance with any final order or decree entered in any such proceeding.

In the event that the Consultant shall fail to file with the Commission such recommendations in writing within sixty (60) days after such retention, the Trustee may designate and appoint a different Consultant to make recommendations as to an adjustment of the schedules of Tolls, which recommendations shall be reported in writing to the Commission and to the Trustee within sixty (60) days after such retention. Such written report shall for all purposes be considered to be the equivalent of and substitute for the recommendations of the Consultant retained by the Commission.

In preparing its recommendations, the Consultant may rely upon written estimates of Revenues prepared by the other Consultants of the Commission. Copies of such written estimates signed by such Consultants shall be attached to such recommendations. The Commission covenants that promptly after receipt of such recommendations and the adoption of any revised schedules of Tolls, certified copies thereof will be filed with the Trustee. The ability of the Commission to collect Tolls in an amount sufficient to comply with the Rate Covenant could be adversely affected by many factors, some of which are beyond the Commission’s control.

The Commission covenanted in the Senior Indenture that Tolls will be classified in a reasonable way to cover all traffic, so that the Tolls may be uniform in application to all traffic falling within any reasonable class regardless of the status or character of any person, firm or corporation participating in the traffic; provided, however, that the foregoing shall not be interpreted to restrict the Commission’s right, in its discretion in connection with its management of the System, to establish and maintain flexible Toll schedules including, but not limited to, provisions for, utilizing or otherwise taking into account, peak and nonpeak pricing, introductory pricing, weight, method of payment, frequency, carpooling, electronic or other Toll collection technologies, traffic management systems, and similar classifications. The Commission has covenanted in the Senior Indenture that it shall not grant free passage or reduced Tolls within a class, except in the limited manner permitted by the Senior Indenture, which includes, among others, for operational or safety reasons including, but not limited to, reasons arising out of a work stoppage, work slowdown or work action, and for use by Commission employees and the Army, Air Force, Navy, Coast Guard, Marine Corps or militia or any branch thereof in time of war or other emergency. Any reduced Toll or grant of free passage shall be reviewed by the Commission with a Consultant before implementing the same unless the same is temporary (e.g., having a duration of less than one year).

In the event the Commission does not meet the Rate Covenant for the preceding Fiscal Year, any classification resulting in a reduced Toll or new classification shall be subject to a Consultant approving the same before it is implemented. In all events, the Commission shall not make a change in classification or any new classification which would cause the Commission to fail to meet the Rate Covenant.

In addition, in the event the Commission does not meet the Rate Covenant for the preceding Fiscal Year, any reduced Toll or free passage shall be subject to a Consultant approving the same before it is implemented by the Commission unless the circumstances require immediate implementation, in which event the Commission shall obtain such approval promptly following implementation. In all events, the

Commission shall not reduce Tolls or grant free passage if it would cause the Commission to fail to meet the Rate Covenant.

The Commission's covenant as to uniformity of Tolls shall not be construed as requiring that Tolls for any given class of traffic be identical in amount throughout the entire System for trips of approximately identical lengths. The Commission may fix and place in effect schedules of Tolls for any given class of traffic wherein the Tolls charged for travel on a given section of the System shall be different from the Tolls charged on another section of the System notwithstanding the fact that both of said sections may be of identical or approximately identical length.

Revenue Fund

All Revenues will be deposited daily, as near as practicable, with the Trustee or in the name of the Trustee with a depositary or depositaries designated by the Commission and approved by the Trustee, to the credit of the Revenue Fund. The moneys in the Revenue Fund are to be held by the Trustee in trust and applied in accordance with the Senior Indenture.

Except as otherwise provided in the Senior Indenture, transfers from the Revenue Fund shall be made to the following funds and in the following order of priority:

(a) Rebate Fund;

(b) Operating Account;

(c) Debt Service Fund;

(d) Reserve Maintenance Fund;

(e) Debt Service Reserve Fund, if applicable; and

(f) General Reserve Fund.

Operating Account

The Commission shall establish an account known as the Operating Account which shall be held by the Commission in the name of the Commission outside of the Senior Indenture until applied as set forth in the Senior Indenture. The Trustee shall transfer from the Revenue Fund on or before the last Business Day of each month to the credit of the Operating Account an amount equal to (a) the amount shown by the Annual Operating Budget to be necessary to pay Current Expenses for the ensuing month and (b) an amount certified by a Commission Official as being reasonably necessary to pay Current Expenses which are expected for such month, after taking into account the amount on deposit in the Operating Account (including the amount described in clause (a) above).

Debt Service Fund

After first having made the foregoing specified deposits to the Operating Account, the Trustee is required to withdraw from the Revenue Fund and deposit to the applicable account in the Debt Service Fund held by the Trustee under the Senior Indenture, the amounts hereinafter specified which shall be applied by the Trustee for the purposes for which the same shall be deposited:

(a) On or before the last Business Day preceding an Interest Payment Date, an amount which equals the interest due on such Interest Payment Date on any Turnpike Revenue Bonds or Parity Obligations; provided, however, that in the case of any fixed rate bonds, term mode bonds and multi-modal fixed mode bonds (collectively, ***"Fixed Rate Bonds")***, the withdrawal from the Revenue Fund and deposit to the Debt Service Fund shall be made on or before the first Business Day of each calendar month in an amount which equals the amount necessary to pay, and for the purpose of paying, one-sixth (1/6) of the interest due on any Fixed Rate Bonds issued under the Senior Indenture on the next succeeding Interest Payment Date (or, in the case of the period from the date of issuance of such Fixed Rate Bonds to the first Interest Payment Date for the applicable Fixed Rate Bonds, a monthly amount equal to the interest amount owed on such first Interest Payment Date divided by the number of months from the date of issuance of such Fixed Rate Bond to such first Interest Payment Date) plus any accumulated unfunded balance relating to prior months' deposit requirements;

(b) On or before the last Business Day preceding a principal payment date, an amount which equals the principal amount of the Turnpike Revenue Bonds or Parity Obligations maturing on such principal payment date; provided, however, that in the case of any Fixed Rate Bonds, the withdrawal from the Revenue Fund and deposit to the Debt Service Fund shall be made on or before the first Business Day of each calendar month in an amount which equals one-twelfth (1/12) of the amount necessary to pay and for the purpose of paying the principal amount of any Fixed Rate Bonds issued under the Senior Indenture maturing (including mandatory sinking fund installments) on the next succeeding principal payment date (or, in the case of the period from the date of issuance of such Fixed Rate Bonds to the first date on which principal is due on such Fixed Rate Bonds, a monthly amount equal to the principal amount owed on such first principal maturity date divided by the number of months from the date of issuance of such Fixed Rate Bond to such first principal maturity date) plus any accumulated unfunded balance relating to prior months' deposit requirements; and

(c) On the dates specified in any Supplemental Indenture relating to Additional Bonds or Parity Obligations, the amounts required to be deposited on said dates to the credit of the Interest Account or Principal Account pursuant to the provisions of such Supplemental Indenture for the purpose of paying the interest on and the principal of such Additional Bonds.

The Trustee is required to pay out of the Interest Account, from time to time, without further authorization from the Commission, and as the same shall become due and payable, the interest upon the Turnpike Revenue Bonds, except to the extent payable from funds and accounts other than the Debt Service Fund, as provided in any Supplemental Indenture. The Trustee is required likewise to pay out of the Principal Account, from time to time, without further authorization from the Commission, as the same shall become due and payable, the principal of the Turnpike Revenue Bonds, except to the extent payable from funds and accounts other than the Debt Service Fund, as provided in any Supplemental Indenture.

If at the time the Trustee is required to make a withdrawal from the Debt Service Fund and the moneys therein shall not be sufficient for such purpose, the Trustee shall withdraw the amount of such deficiency from the moneys on deposit in the following funds or accounts and transfer the same to the Debt Service Fund in the following order: the Debt Service Reserve Fund, if applicable, the General Reserve Fund, and the Reserve Maintenance Fund. **The 2020B Bonds have been designated as Debt Service Reserve Bonds and are secured by moneys in the Debt Service Reserve Fund.** See "Debt Service Reserve Fund" below.

Reserve Maintenance Fund

In each Fiscal Year, after first having made the deposits provided by the Senior Indenture with respect to the Rebate Fund, the Operating Account and the Debt Service Fund, the Trustee shall transfer from the Revenue Fund on or before the last Business Day of each month to the credit of the Reserve Maintenance Fund the amount shown in the Annual Capital Budget for the ensuing month.

Except as otherwise provided in the Senior Indenture, or except in case of an emergency, as characterized in a certificate signed by a Commission Official stating that the moneys to the credit of the Operating Account are insufficient to meet such emergency, moneys in the Reserve Maintenance Fund shall be disbursed to pay current capital expenditures shown in the Annual Capital Budget for the System, plus the cost of unusual or extraordinary maintenance (as determined solely by the Commission) and shall be disbursed only for such purposes, except to the extent hereinafter provided. Such purposes shall include, but not be limited to, paying the cost of constructing, improving and reconstructing improvements and betterments to all parts of the System now or hereafter open to vehicular traffic, including, without limitation, additional lanes, tunnels, interchanges, toll plazas, bridges and connecting roads, transit interface facilities and any other improvements deemed necessary or desirable by the Commission.

Payments from the Reserve Maintenance Fund, except the transfers which the Trustee is authorized to make, shall be made pursuant to a requisition process which follows the process described in the Senior Indenture for payments from the Construction Fund.

The Trustee shall transfer any moneys from the Reserve Maintenance Fund to the credit of the General Reserve Fund from time to time upon the receipt of a certificate of a Commission Official certifying that the amount so to be transferred is not required for the purposes for which the Reserve Maintenance Fund has been created.

Debt Service Reserve Fund

A Debt Service Reserve Fund has been established under the Senior Indenture to provide additional security for Debt Service Reserve Fund Bonds. **The 2020B Bonds are Debt Service Reserve Fund Bonds and are secured by moneys in the Debt Service Reserve Fund.**

The Senior Indenture requires that the balance in the Debt Service Reserve Fund be maintained at the Debt Service Reserve Requirement, which is an amount equal to the Maximum Annual Debt Service on account of all the Debt Service Reserve Fund Bonds. Debt Service Reserve Fund Bonds include Long-Term Indebtedness specified by the Commission in a Supplemental Indenture as being secured by the Debt Service Reserve Fund. See APPENDIX C - “SUMMARY OF CERTAIN PROVISIONS OF THE SENIOR INDENTURE – THE SENIOR INDENTURE – Debt Service Reserve Fund” for information with respect to the Debt Service Reserve Fund under the Senior Indenture.

Following the issuance of the 2020B Bonds and the deposit of a portion of the proceeds of the 2020B Bonds to the Debt Service Reserve Fund, funds on deposit in the Debt Service Reserve Fund will be sufficient, in the aggregate, to meet the Debt Service Reserve Requirement under the Senior Indenture, in the amount of $336,203,350.08, taking into account the 2020B Bonds.

General Reserve Fund

After first having made the above specified deposits to the Operating Account, the Debt Service Fund, the Reserve Maintenance Fund and the Debt Service Reserve Fund, and while any Turnpike Revenue Bonds are outstanding, the Trustee is required to transfer from the Revenue Fund on or before the last Business Day of each Fiscal Year (or more frequently if requested by a Commission Official) to the credit of the General Reserve Fund any funds which a Commission Official determines to be in excess of the amount required to be reserved therein for future transfers to the Debt Service Fund. Moneys in the General Reserve Fund may be expended by the Commission to restore deficiencies in any funds or accounts created under the Senior Indenture, and absent any such deficiency, for any of the following purposes, with no one item having priority over any of the others:

(a) to purchase or redeem Turnpike Revenue Bonds;

(b) to secure and pay the principal or redemption price of, and interest on, any Subordinated Indebtedness;

(c) to make payments into the Construction Fund;

(d) to fund improvements, extensions and replacements of the System; or

(e) to further any corporate purpose.

The Trustee has been directed to disburse from the General Reserve Fund, to the trustee under the Subordinate Indenture, funds sufficient to meet debt service requirements on the Subordinate Indenture Bonds. Under the Subordinate Indenture, the Commission has agreed that it will at all times establish and maintain Tolls for traffic over the System so that the amount paid into the General Reserve Fund in each Fiscal Year after deducting any liquidity reserve or other required holdback or deposit then in effect will be at least sufficient to provide funds in an amount not less than (i) 115% of the annual debt service on Subordinate Revenue Bonds (and obligations on parity with Subordinate Revenue Bonds), plus (ii) 100% of the annual debt service on Special Revenue Bonds (and obligations on a parity with Special Revenue Bonds and certain further subordinated bonds), plus (iii) any amount required under the Subordinate Indenture to restore within eighteen (18) months any deficiency in the debt service reserve fund held under the Subordinate Indenture. Failure to meet this covenant will not constitute a default under the Subordinate Indenture (or the Senior Indenture), but will require the Commission to retain a consultant to advise with respect to schedules of Tolls in order to bring the Commission into compliance. The Trustee has never withdrawn funds from the General Reserve Fund to meet regularly scheduled debt service payments on Turnpike Revenue Bonds outstanding under the Senior Indenture nor has the General Reserve Fund been used to restore any shortfalls in the Debt Service Reserve Fund for any Turnpike Revenue Bonds. See also “ADDITIONAL INDEBTEDNESS OF THE COMMISSION - Subordinate Indenture Bonds” herein.

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The following chart sets forth the balances held in the General Reserve Fund as of the fiscal year end dates set forth below.

General Reserve Fund Balances
as of May 31[1]

2020	2019	2018	2017	2016
$404,330,774	$391,569,248	$345,414,879	$376,426,649	$336,521,619

Additional Bonds Test

The Commission is permitted to issue Additional Bonds and other Indebtedness under the terms of the Senior Indenture, having a lien on the Trust Estate, in the form of Short-Term Indebtedness, Long-Term Indebtedness, Subordinated Indebtedness and Approved Swap Agreements, provided that there is no default, that certain resolutions, opinions, supplemental indentures, certifications and moneys and securities, if necessary, are delivered to the Trustee and that the following conditions are met:

(a) with respect to Short-Term Indebtedness, (1) immediately after the incurrence of such Short-Term Indebtedness, the outstanding principal amount of all Short-Term Indebtedness issued pursuant to the Senior Indenture may not exceed 30% of the Revenues for the most recent Fiscal Year for which audited financial statements are available; and (2) for a period of not fewer than seven consecutive days within each Fiscal Year, commencing with the Fiscal Year following the issuance of such Short-Term Indebtedness, the aggregate principal amount of all outstanding Short-Term Indebtedness is reduced to less than 5% of the Revenues for the immediately preceding Fiscal Year for which audited financial statements are available. Short-Term Indebtedness issued pursuant to the Senior Indenture will be on a parity with other Additional Bonds;

(b) with respect to Long-Term Indebtedness, prior to or contemporaneously with the incurrence thereof (1) a certificate of a Commission Official certifying that the Historical Pro Forma Debt Service Coverage Ratio for the most recent Fiscal Year preceding the delivery of such certificate for which audited financial statements are available was not less than 1.75; or (2) a report of a Consultant to the effect that (i) the Net Revenues of the Commission during the preceding Fiscal Year were at least 130% of the Maximum Annual Debt Service on all Applicable Long-Term Indebtedness then Outstanding and on any Applicable Long-Term Indebtedness proposed to be issued (which report may assume any revisions of the Tolls which have been approved by the Commission after the beginning of such Fiscal Year were in effect for the entire Fiscal Year) and (ii) the Projected Debt Service Coverage Ratio is not less than 1.30; or

[1] Balances in the General Reserve Fund can vary substantially, both month to month and year to year, due not only to variations in revenues, but also to the timing of expenditures, particularly capital expenditures, the Commission's equity contribution towards its Act 44 payment and the Commission's deposit to the Pennsylvania Turnpike Commission Retiree Medical Trust. (See APPENDIX A - "THE PENNSYLVANIA TURNPIKE COMMISSION – CERTAIN OTHER INFORMATION – Other Post-Employment Benefit Liabilities."). Further, based on actual expenditures through Fiscal Year 2020, the Commission has utilized $679 million in General Reserve Fund balances to: 1) augment its Act 44 payments by $320 million; 2) make contributions to the Retiree Medical Trust of $134.4 million in excess of its annual required contribution; 3) redeem a portion of its Floating Rate Notes issued under the Senior Indenture at maturity on December 1, 2017 ($100 million) and December 1, 2018 ($50 million); and 4) utilize $74.6 million to cash defease a portion of its outstanding Senior and Subordinate Revenue Bonds. In Fiscal Year 2021 the Commission expects to: 1) utilize approximately $160 million in General Reserve Fund balances to cash defease a portion of its debt issued under the Senior Indenture and the Subordinate Indenture; 2) utilize at least $30 million annually in General Reserve Fund balances to support its Act 44 payment, consistent with assumptions made in its Act 44 Financial Plan.

(3) if the Long-Term Indebtedness is being incurred solely for the purpose of refunding, repurchasing or refinancing (whether in advance or otherwise) any outstanding Long-Term Indebtedness, a certificate of a Commission Official certifying the Maximum Annual Debt Service on all Applicable Long-Term Indebtedness prior to the issuance of the proposed Long-Term Indebtedness is greater than the Maximum Annual Debt Service on all Applicable Long-Term Indebtedness after the issuance of such proposed Long-Term Indebtedness;

(c) with respect to Subordinated Indebtedness, there is no limit, provided that the Subordinate Indebtedness is subordinate and junior in all respect to payment of all Turnpike Revenue Bonds and other Parity Obligations incurred under the Senior Indenture so that the same is payable as to principal and interest once all other payments have been made under the Senior Indenture from amounts on deposit to the credit of the General Reserve Fund as long as prior to or contemporaneously with the incurrence there is delivered to the Trustee, a certificate of a Commission Official certifying that the Rate Covenant would have been met during the preceding Fiscal Year taking into account the Maximum Annual Debt Service on such Subordinated Indebtedness. Such Subordinated Indebtedness and the payment thereof may be secured by a lien and pledge (a) subordinate to that of the Turnpike Revenue Bonds on the Revenues or (b) prior to, on a parity with or subordinate to, that of the Turnpike Revenue Bonds on Other Revenues, in which event the Commission and the Trustee may establish such other accounts under the Senior Indenture as they deem necessary or appropriate; and

(d) with respect to Approved Swap Agreements, no Approved Swap Agreement will be entered into unless prior to or contemporaneously with the incurrence thereof, a certificate of a Commission Official as described in (b)(1) above, or a report of a Consultant as described in (b)(2) above, which takes into account the expected payments by and to the Commission pursuant to such Approved Swap Agreement in calculating Annual Debt Service is delivered.

ADDITIONAL INDEBTEDNESS OF THE COMMISSION

Bonds and Other Parity Obligations

The Commission has previously issued Turnpike Revenue Bonds and Notes under the terms of the Senior Indenture that have an equal claim to the Trust Estate with the 2020B Bonds. As of the date of this Official Statement, $5,844,595,000 in aggregate principal amount of Turnpike Revenue Bonds are Outstanding under the Senior Indenture. The principal amount outstanding under the Senior Indenture on the date of this Official Statement includes (i) certain notes evidencing and securing $383,500,000 in loans (issued in eight tranches) through the Immigrant Investor Program (known as the EB-5 visa program) administered by U.S. Citizenship and Immigration Services (the "***EB-5 Loans***"), the proceeds of which are being used to fund a portion of the I-95 Interchange project and certain projects in the Commission's current or any prior ten year capital plan (see APPENDIX A - "THE PENNSYLVANIA TURNPIKE COMMISSION – CERTAIN FINANCIAL INFORMATION" for additional information on the EB-5 Loans); and (ii) $939,790,000 aggregate principal amount of variable rate obligations. Upon the issuance of the 2020B Bonds, $6,086,220,000 in aggregate principal amount of Turnpike Revenue Bonds will be Outstanding under the Senior Indenture.

Other obligations issued and Outstanding under the Senior Indenture include the Commission's obligations under various interest rate swap agreements having a total current notional amount of $786,150,000. Under the terms of the Senior Indenture, regularly scheduled amounts payable under Parity Swap Agreements, and in certain cases termination payments, are secured on a parity with the Bonds by the Trust Estate. See APPENDIX A – "THE PENNSYLVANIA TURNPIKE COMMISSION –

CERTAIN FINANCIAL INFORMATION – Financial Policies and Guidelines" and APPENDIX C - "SUMMARY OF CERTAIN PROVISIONS OF THE SENIOR INDENTURE."

The Tolls are not pledged to secure the Subordinate Revenue Bonds (as defined below), the Special Revenue Bonds (as defined below), the Oil Franchise Tax Revenue Bonds (as defined below) and the Registration Fee Revenue Bonds (as defined below). Certain payments made from moneys released from the General Reserve Fund which are derived from Tolls are, however, pledged on a wholly subordinate basis to secure payments due on Subordinate Revenue Bonds and Special Revenue Bonds.

Subordinate Indenture Bonds

Act 44 authorizes the Commission to issue bonds for the purpose of paying costs of PennDOT and bond-related expenses. Proceeds of such bonds may be applied toward the satisfaction of the Commission's annual payment obligations to PennDOT under the Amended Funding Agreement (as defined in APPENDIX A hereto). As of the date of this Official Statement, the Commission has $5,666,035,384.85 aggregate principal amount outstanding (including compounded amounts as of June 1, 2020 for the Commission's outstanding capital appreciation bonds) of Subordinate Revenue Bonds (the ***"Subordinate Revenue Bonds")*** under the Subordinate Indenture under the authorization of Act 44 to be paid solely from moneys released from the General Reserve Fund (such bonds are therefore subordinate to Bonds and other Parity Obligations under the Senior Indenture). Other obligations issued and outstanding under the Subordinate Indenture include the Commission's obligations under an interest rate swap agreement having a total current notional amount of $291,850,000. See "CERTAIN RISK FACTORS – The FCA Announcement, changes to LIBOR determination methods or other reforms to LIBOR could increase debt service and other payment obligations under the Commission's FRNs and Swaps" herein and APPENDIX A - "THE PENNSYLVANIA TURNPIKE COMMISSION – CERTAIN FINANCIAL INFORMATION – Financial Policies and Guidelines" for additional information relating to swaps.

Upon fulfillment of conditions set forth in the Subordinate Indenture, the Commission may issue additional Subordinate Revenue Bonds under the terms of the Subordinate Indenture. In addition to any Subordinate Revenue Bonds, the Commission is authorized under the terms of the Subordinate Indenture to enter into various interest rate exchange agreements that will constitute parity swap agreements under the Subordinate Indenture. Under the terms of the Subordinate Indenture, amounts payable under parity swap agreements, including termination payments, may be secured on a parity with the Subordinate Revenue Bonds.

There is no statutory limit on the amount of Subordinate Revenue Bonds that may be issued by the Commission. To date, the Commission has issued Subordinate Revenue Bonds under the Subordinate Indenture, but has not issued any Subordinated Indebtedness under the Senior Indenture. The Commission has no plans to issue any Subordinated Indebtedness under the Senior Indenture.

Previously, under Act 44, the Commission was able to issue up to $5 billion of Special Revenue Bonds guaranteed by the Motor License Fund under Act 44 (the ***"Special Revenue Bonds"*** and, together with the Subordinate Revenue Bonds, the ***"Subordinate Indenture Bonds"***) which are subordinate to Parity Obligations issued under the Senior Indenture and to the Subordinate Revenue Bonds issued under the Subordinate Indenture. However, other than bonds issued to refund outstanding Special Revenue Bonds, pursuant to Act 89, effective July 1, 2014, Special Revenue Bonds may no longer be issued by the Commission to fund any portion of its payment obligation under the Amended Funding Agreement. The Commission has issued Special Revenue Bonds currently outstanding in the aggregate principal amount of $1,006,172,809.70 (inclusive of compounded amounts as of June 1, 2020 for capital appreciation bonds). Debt service on the Special Revenue Bonds shall be payable from any available funds of the

Commission, but is additionally secured by amounts payable from the Motor License Fund created under Act 44 required to pay any debt service shortfall; all such debt service payments are subordinate obligations of the Commission payable solely from certain money in, or periodically released from, the General Reserve Fund after meeting all other Commission requirements pursuant to any financial documents, financial covenants, insurance policies, liquidity policies or agreements in effect at the Commission; and the proceeds from the issuance of the Special Revenue Bonds may only be used for roads and bridges. The Amended Funding Agreement provides that the Commission is obligated to pay all debt service due with respect to the Special Revenue Bonds. See APPENDIX A - "THE PENNSYLVANIA TURNPIKE COMMISSION – THE COMMISSION – Enabling Acts," for a description of the Subordinate Revenue Bonds and Special Revenue Bonds which the Commission is authorized to issue under the Enabling Acts.

Other Bonds Issued by the Commission - No Claim on Trust Estate

The Commission has also issued Oil Franchise Tax Revenue Bonds that are currently outstanding in the aggregate principal amount of $1,038,448,217.05 (inclusive of compounded amounts as of June 1, 2020 for capital appreciation bonds) and Registration Fee Revenue Bonds that are currently outstanding in the aggregate principal amount of $359,825,000, which includes a direct purchase obligation in the aggregate principal amount of $231,425,000. The Commission has entered into various interest rate exchange agreements (swaps) with respect to certain of the Oil Franchise Tax Revenue Bonds and Registration Fee Revenue Bonds. Neither the Oil Franchise Tax Revenue Bonds nor the Registration Fee Revenue Bonds or any of the various swaps with respect to the Oil Franchise Tax Revenue Bonds and Registration Fee Revenue Bonds are secured by or have any interest in the Trust Estate. Furthermore, neither the Oil Franchise Tax Revenues nor the Registration Fee Revenues are pledged to secure the 2020B Bonds.

Future Commission Financings

See APPENDIX A - "THE PENNSYLVANIA TURNPIKE COMMISSION – CERTAIN FINANCIAL INFORMATION – Future Financing Considerations" for a discussion of future financings planned or contemplated by the Commission.

CERTAIN RISK FACTORS

There are various factors which could adversely affect the sufficiency of the Trust Estate and which, if present, may result in an inability to meet the debt service requirements on the 2020B Bonds. The following is intended only as a summary of certain risk factors attendant to an investment in the 2020B Bonds and is not intended to be exhaustive. In order to identify risk factors and make informed investment decisions, potential investors should be thoroughly familiar with the entire Official Statement (including each Appendix hereto), and the Senior Indenture and related documents in order to make a judgment as to whether the 2020B Bonds are an appropriate investment. The following risk factors are among those which should be considered by a potential investor:

Commission Revenues may decline

The actual amount of future toll revenues collected by the Commission depends upon a number of factors, including rates established by the Commission and the level and composition of traffic on the System. Many of these factors are beyond the control of the Commission. The Commission is obligated under the terms of the Amended Funding Agreement, Act 44 and Act 89, the Senior Indenture and the Subordinate Indenture to fix and revise tolls at levels that will generate revenues (together with other available moneys) sufficient to pay all of its obligations under the Amended Funding Agreement, to construct and maintain the System and to pay debt service obligations and other amounts payable to PennDOT or the Commonwealth. However, the amount of traffic on the System cannot be predicted with certainty and may decline due to general economic conditions, diversion of some traffic to alternative non-toll routes to avoid toll rate increases or because of increased fuel costs, increased mileage standards, higher fuel taxes or other factors. There is insufficient data to assess these risk factors fully. However, based on historical variations in such factors and the recent toll increases, the Commission reasonably expects to have sufficient revenues to meet its payment obligations, including payment obligations with respect to the 2020B Bonds. But see Appendix A - "THE PENNSYLVANIA TURNPIKE COMMISSION – CERTAIN FINANCIAL INFORMATION – Performance Audit by the Auditor General."

In addition, as set forth in the Traffic Study, there is considerable uncertainty inherent in future traffic and revenue forecasts for any toll facility, and differences between forecasted and actual results (which may be material) may occur due to events and circumstances beyond the control of the forecasters, including without limitation, economic conditions and other factors. See APPENDIX F - "TRAFFIC AND REVENUE STUDY." While future traffic volume and revenues cannot be predicted with certainty, the Commission reasonably expects that it will have sufficient revenue to meet the then existing debt and operational obligations of the Commission. But see APPENDIX A - "THE PENNSYLVANIA TURNPIKE COMMISSION – CERTAIN FINANCIAL INFORMATION – Performance Audit by the Auditor General."

If Commission experiences financial problems, delays in payment or losses on the 2020B Bonds may result

Adverse changes in the financial condition of the Commission could result in a failure to make its payments, or a delay in payments, to the Trustee with respect to the 2020B Bonds. In addition to a potential decline in revenues, the Commission's financial condition could be adversely affected by a number of factors including, but not limited to:

- Increased and/or unanticipated costs of operation and maintenance of the System;
- Decreased toll revenues due to declines in usage or otherwise;
- Increased use of remote work environments and technology among the general population that may decrease levels of commuting or travel for business or other purposes;
- Increased use of mass transit systems;

- Work stoppage, slowdown or action by unionized employees;
- Complete or partial destruction or temporary closure of the System due to events beyond the control of the Commission;
- Increased unfunded pension benefits;
- Increased unfunded healthcare and other non-pension post-employment benefits;
- Failure to pay the purchase price on outstanding floating rate notes or other variable rate obligations issued by the Commission subject to maturity or mandatory tender;
- Increased fuel costs; and
- Claims or adverse litigation judgments for monetary damages not covered by insurance.

The Commission's financial condition may be adversely affected as a consequence of adverse changes in the financial condition of third-party financial institutions

Adverse changes in the financial condition of certain third-party financial institutions may adversely affect the Commission's financial position. Different types of investment and contractual arrangements may create exposure for the Commission to such institutions including:

- Risk to the Commission's investment portfolio due to defaults or changes in market valuation of the debt securities of such institutions; and
- Counterparty risk related to swaps used by the Commission to hedge its cost of funds.

Litigation and Other Actions Against the Commission

The Commission is subject to litigation from time to time and may be subject to litigation and other actions in the future which could adversely affect the financial position of the Commission. The Commission cannot predict when or if any action will be brought against the Commission in the future, and, if brought, whether any action would be successful or result in monetary damages or other relief being imposed upon the Commission.

Certain legislative actions may result in adverse changes to the Commission, Act 44 or Act 89

From time to time, legislation is introduced in the Pennsylvania General Assembly which may affect the Commission and therefore may affect certain of the assumptions made in this Official Statement. The Commission cannot predict if any of such bills or other legislation will be enacted into law, or how any such legislation may affect the Commission's ability to make timely payments on the 2020B Bonds. See APPENDIX A - "THE PENNSYLVANIA TURNPIKE COMMISSION – THE COMMISSION – Recent Developments and Pending Legislation."

Bankruptcy risk; Lien position

The rights and remedies of Bondholders could be limited by the provisions of the Federal Bankruptcy Code, as now or hereafter enacted (the ***"Bankruptcy Code"***), or by other laws or legal or equitable principles which may affect the enforcement of creditors' rights. Chapter 9 of the Bankruptcy Code permits, under prescribed circumstances, a political subdivision or public agency or instrumentality of a state, such as the Commission, to commence a voluntary bankruptcy proceeding and to file a plan of adjustment in the repayment of its debts, if such entity is generally not paying its debts as they become due (unless such debts are the subject of a bona fide dispute), or is unable to pay its debts as they become due. Under the Bankruptcy Code, an involuntary petition cannot be filed against a political subdivision, public agency or instrumentality of a state.

In order to proceed under Chapter 9 of the Bankruptcy Code, state law must authorize the political subdivision, public agency or instrumentality to file a petition under the Bankruptcy Code. THE ENABLING ACTS DO NOT CURRENTLY AUTHORIZE THE COMMISSION TO FILE A PETITION UNDER THE BANKRUPTCY CODE.

Reductions in federal subsidy payable to the Commission for its outstanding Build America Bonds due to sequestration

A series of automatic federal deficit reduction spending cuts known as "sequestration" became effective on March 1, 2013 as a result of the failure by Congress to adopt alternative deficit reduction legislation; recent legislation has extended sequestration through the 2030 federal fiscal year. Sequestration will affect the federal subsidy payable to the Commission with respect to its outstanding Build America Bonds. The federal subsidy has been reduced in each fiscal year, commencing with the federal fiscal year ended September 30, 2013. Based on guidance issued by the Internal Revenue Service (the ***"IRS"***) in August 2020, such federal subsidy will be reduced by 5.7% or $1,276,051.64 for payments from October 1, 2020 through September 30, 2030. The sequestration reduction rate will be applied unless and until a law is enacted that cancels or otherwise impacts the sequester, at which time the sequestration reduction rate is subject to change. Reductions in future federal fiscal years are currently unknown. Adverse changes in the amount of the federal subsidy the Commission receives on its Build America Bonds will require the Commission to use other funds to offset the loss of this subsidy.

Possible changes in federal tax laws could affect the excludability or deductibility of interest on tax-exempt bonds such as the 2020B Bonds

Current and future legislative proposals, if enacted into law, could cause interest on the 2020B Bonds to be subject, directly or indirectly, to federal income taxation, or to be subject to or not be exempted from state income taxation, or otherwise prevent the owners of the 2020B Bonds from realizing the full current benefit of the tax status of such interest. The introduction and/or enactment of any such legislative proposals may also affect the market price for, or marketability of, the 2020B Bonds. Prospective purchasers of the 2020B Bonds should consult their own tax advisors regarding any pending or proposed federal tax legislation, as to which Co-Bond Counsel will express no opinion. See "TAX MATTERS."

The 2020B Bonds may be repaid early due to the exercise of the redemption option. If this happens, yield may be affected and 2020B Bondholders will bear reinvestment risk

The 2020B Bonds may be redeemed prior to their final maturity if the Commission exercises its option to redeem the 2020B Bonds. Bondholders bear the risk that monies received upon such redemption cannot be reinvested in comparable securities or at comparable yields.

Uncertainty as to available remedies

The remedies available to owners of the 2020B Bonds upon an Event of Default under the Senior Indenture or other documents described herein are in many respects dependent upon regulatory and judicial actions which often are subject to discretion and delay. Under existing constitutional and statutory law and judicial decisions, the remedies specified by the Senior Indenture and such other documents may not be readily available or may be limited. The various legal opinions to be delivered concurrently with the issuance of the 2020B Bonds will be qualified, as to the enforceability of the various legal instruments, by limitations imposed by bankruptcy, reorganization, insolvency or other similar laws affecting the rights of creditors generally.

The FCA Announcement, changes to LIBOR determination methods or other reforms to LIBOR could increase debt service and other payment obligations under the Commission's FRNs and Swaps

On July 27, 2017, the Financial Conduct Authority announced that it will no longer persuade or compel banks to submit rates for the calculation of LIBOR rates after 2021 (the "***FCA Announcement***"). Many of the Commission's Swaps and FRNs use a LIBOR based rate as a reference rate for determining the interest rate and/or other payment obligations thereunder. It is not possible to predict the effect of the FCA Announcement, any changes in the methods pursuant to which LIBOR rates are determined, or any other reforms to LIBOR that may be enacted, any of which may adversely affect the determination of LIBOR rates or result in the phasing out of LIBOR as a reference rate. Any such effects could result in a sudden or prolonged increase or decrease in reported LIBOR rates, or result in the replacement of LIBOR with other reference rates, and could significantly increase debt service payable on the Commission's FRNs and/or have a negative impact on the market value of the Commission's Swaps and payment obligations thereunder.

Covenants and restrictions in other agreements vary from provisions of the Senior Indenture

The Commission has entered into agreements with certain financial institutions relating to certain indebtedness, including Parity Obligations under the Senior Indenture, some of which contain additional covenants and restrictions for the benefit of such financial institutions, including provisions that a ratings downgrade triggers an increase in the interest rate on certain obligations. See the Commission's Bank Loan Disclosures available at https://emma.msrb.org/IssuerHomePage/Issuer?id=4F1C2125D

AC85ABFE053151ED20AC6F6&type=M[1] and APPENDIX A - "THE PENNSYLVANIA TURNPIKE COMMISSION – CERTAIN FINANCIAL INFORMATION – Financial Policies and Guidelines".

Cybersecurity Threats

Computer hacking, cyber-attacks or other malicious activities could disrupt Commission services. Further, security breaches such as leakage or loss of confidential or proprietary data and failure or disruption of information technology systems could materially and adversely affect the Commission's reputation, which could lead to significant outlays and decreased performance that insurance may not cover. The Commission has a robust security framework that leverages multiple layers of protection including edge and internal firewalls, an intrusion prevention system, security incident and event management, multi-layered anti-virus, malware protection and spam filters. The Commission performs regular security patching and regular internal and external vulnerability scans. Periodic security assessment and penetration testing is performed regularly by qualified third parties. The Commission has published third-party security requirements that define general security requirements, requirements for vendors providing hosting cloud-based systems, and requirements for vendors providing on-premises systems or devices physically connected to the Commission's networks. The Commission has purchased and implemented security awareness training and simulated phishing attacks. All Commission employees are required to complete annual information technology security training and phishing simulation campaigns are performed regularly. Additionally, the Commission has purchased cyber insurance which also provides immediate access to third party forensic investigation experts to assist the Commission with any data or system breaches. Although the Commission devotes significant resources to maintain and regularly upgrade its systems and processes that are designed to protect the security of its computer systems, software, networks and other technology assets and the confidentiality, integrity and availability of information belonging to customers, there is no assurance that all these security measures will provide absolute security. These risks may increase in the future as the Commission continues to increase its mobile payment and other internet-based applications both internally and externally.

Potential Impact of the Coronavirus

The outbreak of COVID-19, a respiratory disease caused by a new strain of coronavirus, which was first detected in China and has since spread to other countries, has been declared a Public Health Emergency of International Concern by the World Health Organization. Governor Wolf signed an emergency disaster declaration on March 6, 2020 to ensure state agencies involved

[1] The information contained on such website link is not incorporated by reference in this Official Statement.

in the response have the expedited resources they need to continue to focus on the virus and its possible spread. On March 19, 2020, the Governor ordered all non-life sustaining businesses to close their physical locations. Beginning on March 23, 2020, the Governor ordered certain counties to begin sheltering in place and on April 1, 2020, the order to shelter in place was extended to all Pennsylvania counties. On April 22, 2020, Governor Wolf announced a phased reopening plan in which counties could reopen based on three phases, red, yellow and green. Each phase has certain state benchmarks related to new COVID-19 cases. Red means that stay at home orders are in effect, yellow permits a partial re-opening with limitations and green means that aggressive mitigation orders have been lifted. As of July 3, 2020, all 67 Pennsylvania counties no longer had stay at home orders (red phase), with all counties in the green phase (subject to certain variations within the green designation (e.g., Philadelphia County)). On July 15, 2020, Governor Wolf announced and signed a new executive order, which implements a number of restaurant-industry specific restrictions as well as the requirement that telework must be implemented where possible. On August 31, 2020, Governor Wolf renewed the emergency disaster declaration until November 29, 2020.

With respect to toll revenue collections, as of May 31, 2019, fully 86 percent of Commission toll collection is through electronic means with a greater percentage (93 percent) of electronic collection for commercial vehicles. The Commission maintains cash reserves with over \$479.1 million on deposit in its General Reserve Fund, as of July 14, 2020, which represents over 400 days of operating cash flow. The cash balance as of May 31, 2020 was \$404.3 million, representing 345 days of operating cash flow. In addition to its deposits in the General Reserve Fund, the Commission on June 3, 2020 obtained a \$200 million revolving line of credit, secured as a Parity Obligation under the Indenture, for use as working capital to meet operating needs (the “Line of Credit”). The Commission is required to repay any principal amounts advanced and outstanding under the Line of Credit on its June 1, 2021 expiration date. Advances under the Line of Credit bear interest at an annual rate equal to an adjusted daily LIBOR rate (not to be less than 0.50%) plus 1.25%. See APPENDIX A – “THE PENNSYLVANIA TURNPIKE COMMISSION – CERTAIN FINANCIAL INFORMATION – Direct Purchase Obligations – *2020 PNC Line of Credit*.” To date, none of the Line of Credit has been utilized. With respect to the operations of the System, the Commission maintains contingency plans to minimize disruptions to its operations from exogenous events such as natural or man-made disasters. The Commission previously created a Continuity of Operations (“COOP”) Plan to address ongoing critical operations and disaster recovery efforts. COOP coordinators have reviewed their respective department’s COOP

Plan and ensured that it has been updated given the potential challenges of the potential spread of COVID-19.

Because of the public health crisis created by COVID-19, and as a result of the measures put in place by the Governor, traffic counts have declined on the System.

Traffic and revenue declines on the System, began with the week ending of March 14, 2020. Steep declines continued on a weekly basis, peaking (thus far) the weeks ending April 11, 2020 and April 18, 2020. Volume losses stabilized in May 2020 and improved on a week to week basis through the week ending July 11, 2020. Since July 11, 2020, volumes have remained relatively constant at approximately 23-25% below prior year levels as measured on a weekly basis for all vehicles.

Operations and maintenance of the System continues through a combination of staff working onsite where necessary or working remotely. The Commission is unable to project the impact of COVID-19 on the System's future traffic counts as there is no certainty as to either how long the public health crisis will continue or the types and duration of measures that could be imposed during the crisis. While the Commonwealth's mitigation efforts appear to have helped curtail the spread of COVID-19, the number of positive cases continues to rise and the Commonwealth may implement additional measures in the future.

AUDITED FINANCIAL STATEMENTS

The financial statements of the Commission for the years ended May 31, 2020 and May 31, 2019 are set forth in APPENDIX B - "AUDITED 2020 AND 2019 FINANCIAL STATEMENTS" audited by Mitchell Titus, LLP in its capacity as the Commission's Independent Auditor. Mitchell Titus, LLP has not been engaged to perform and has not performed, since the date of its auditor's report, any procedures on the financial statements addressed in that report. Additionally, Mitchell Titus, LLP has not performed any procedures related to this Official Statement or other debt-related offering documents.

CONTINUING DISCLOSURE

The Commission will enter into a Continuing Disclosure Agreement for the benefit of the Registered Owners from time to time of the 2020B Bonds (the ***"Disclosure Agreement"***) pursuant to Rule 15c2-12 promulgated by the Securities and Exchange Commission (the ***"SEC"***) under the Securities Act of 1934, as amended (the ***"Rule"***).

Pursuant to the Disclosure Agreement, the Commission will provide or cause to be provided to the Municipal Securities Rulemaking Board (the ***"MSRB"***), which is currently the sole nationally recognized municipal securities information repository (***"Repository"***) under the Rule, via electronic transmissions pursuant to the MSRB's Electronic Municipal Market Access System (***"EMMA"***), accessible at http://emma.msrb.org, the following information and notices:

(a) Within one hundred eighty (180) days of the end of each fiscal year of the Commission commencing with the fiscal year ending May 31, 2021, annual financial information (collectively, the ***"Annual Financial Information"***), consisting of: (i) financial and operating data of the type set forth in this Official Statement in Tables I, II and III contained in APPENDIX A - "THE PENNSYLVANIA TURNPIKE COMMISSION—CERTAIN FINANCIAL INFORMATION"; (ii) the Commission's audited financial statements for such fiscal year; and (iii) a summary of any material legislative or regulatory developments affecting Act 44 and/or Act 89, since the Commission's most recent annual financial information filing. The Commission's audited financial statements shall be prepared in accordance with generally accepted accounting principles consistently applied as in effect from time to time; provided, however, that the Commission reserves the right to change the basis upon which its audited financial statements are prepared at any time and from time to time. Should the Commission exercise its right to change the basis upon which its audited financial statements are prepared as provided in the immediately preceding sentence, it shall provide notice of any such accounting change to the MSRB via EMMA, which notice shall include a reference to the specific federal or state law or regulation requiring or permitting such accounting change and a description of such change. In the event that the Commission's audited financial statements are not available within one hundred eighty (180) days of the close of the applicable fiscal year, the Annual Financial Information will contain unaudited financial statements and the audited financial statements will be provided for filing when available.

(b) Notice of the occurrence of any of the following events with respect to the 2020B Bonds, within ten (10) business days after the occurrence of such event (each, a ***"Reportable Event"***): (i) principal and interest payment delinquencies; (ii) non-payment related defaults, if material; (iii) unscheduled draws on debt service reserves reflecting financial difficulties; (iv) unscheduled draws on credit enhancements reflecting financial difficulties; (v) substitution of credit or liquidity providers, or their failure to perform; (vi) adverse tax opinions, the issuance by the IRS of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the 2020B Bonds or other material events affecting the tax status of the 2020B Bonds; (vii) modifications to rights of holders of the 2020B Bonds, if material; (viii) optional or unscheduled 2020B Bond calls, if material, and tender offers; (ix) defeasance of all or any portion of the 2020B Bonds; (x) release, substitution, or sale of property securing repayment of the 2020B Bonds, if material; (xi) rating changes; (xii) bankruptcy, insolvency, receivership or similar event of the Commission; (xiii) consummation of a merger, consolidation or acquisition involving the Commission or the sale of all or substantially all of the assets of the Commission, other than in the ordinary course of business, the entry of a definitive agreement to undertake such an action or the termination of a definitive agreement relating to such actions, other than pursuant to its terms, if material; (xiv) appointment of a successor or additional trustee or the change of name of the trustee, if material; (xv) incurrence of a financial obligation of the Commission, if material, or agreement to covenants, events of default, remedies, priority rights or other similar terms of a financial obligation of the Commission, any of which affects holders of the 2020B Bonds, if material; and (xvi) default, event of acceleration, termination event, modification of terms or other similar events under the terms of a financial obligation of the Commission, any of which reflect financial difficulties.

The foregoing sixteen (16) events are quoted from the Rule. The SEC requires the listing of the events listed in clauses (i) through (xvi) above, although some of such events may not be applicable to the 2020B Bonds.

The Commission has agreed pursuant to the Disclosure Agreement to provide in a timely manner to the MSRB notice of a failure (of which the Commission has knowledge) to provide the required Annual Financial Information or notice of a Reportable Event on or before the date specified above.

The Commission may amend the Disclosure Agreement and waive any of the provisions thereof, but no such amendment or waiver shall be executed and effective unless: (i) the amendment or waiver is made in connection with a change in legal requirements, change in law or change in the identity, nature or status of the Commission or the governmental operations conducted by the Commission; (ii) the Disclosure Agreement, as modified by the amendment or waiver, would have been the written undertaking contemplated by the Rule at the time of original issuance of the 2020B Bonds, taking into account any amendments or interpretations of the Rule; and (iii) the amendment or waiver does not materially impair the interests of the Registered Owners of the 2020B Bonds. Evidence of compliance with the foregoing conditions shall be satisfied by delivery to the Commission of an opinion of counsel having recognized skill and experience in the issuance of municipal securities and federal securities law to the effect that the amendment or waiver satisfies the conditions set forth in the preceding sentence. Notice of any amendment or waiver shall be filed by the Commission with the MSRB via EMMA and shall be sent to the Registered Owners of the 2020B Bonds.

The Disclosure Agreement will recite that it is entered into for the benefit of the Registered Owners from time to time of the 2020B Bonds. For the purposes of the Disclosure Agreement, for so long as the 2020B Bonds are registered in the name of DTC or its nominee, ***"Registered Owner"*** shall mean and include the holder of a book-entry credit evidencing an interest in the 2020B Bonds. Holders of book-entity credits may file their names and addresses with the Commission for the purposes of receiving notices or giving direction under the Disclosure Agreement.

A default under the Disclosure Agreement shall not be deemed to be a default under the 2020B Bonds or the Senior Indenture, and the sole remedy to enforce the provisions of the Disclosure Agreement shall be the right of any Registered Owner, by mandamus, suit, action or proceeding at law or in equity, to compel the Commission to perform the provisions and covenants contained in the Disclosure Agreement.

The Disclosure Agreement will terminate (1) upon payment or provision for payment in full of the 2020B Bonds, (2) upon repeal or rescission of Section (b)(5) of the Rule, or (3) upon a final determination that Section (b)(5) of the Rule is invalid or unenforceable. A copy of the Disclosure Agreement is on file at the principal office of the Commission.

Approximately 64 separate continuing disclosure undertakings were in effect during the five-year period preceding the date of this Official Statement relating to over 100 series and subseries of bonds issued by the Commission. In connection with approximately five of those undertakings (which cover approximately eighteen series and subseries of bonds), the Commission failed to provide (on or before the required deadlines) certain annual disclosure concerning either Act 3 Registration Fee Revenue or Oil Franchise Tax Revenue collected by the Commonwealth for fiscal years ending 2013-2014, as applicable.

Each of the foregoing described disclosures was subsequently filed through EMMA on or about September 30, 2015. Notice of the failure to timely provide such disclosures was filed with the MSRB (via EMMA) on July 22, 2016. None of the foregoing described instances of late filings should be construed as an acknowledgement by the Commission that any such instance was material.

Except as may be otherwise described herein, during the five (5) year period preceding the date of this Official Statement, the Commission has complied in all material respects with all of its continuing disclosure undertakings entered into pursuant to the Rule in connection with its other series of bonds.

RELATIONSHIPS OF CERTAIN PARTIES

PFM Financial Advisors LLC, Financial Advisor to the Commission and its affiliate PFM Asset Management, LLC, are engaged to provide other services to the Commission.

Cozen O'Connor, Co-Bond Counsel to the Commission in connection with the issuance of the 2020B Bonds, from time to time, provides legal services to the Commission on unrelated matters.

U.S. Bancorp Investments, Inc. is an affiliate of the Trustee.

UNDERWRITING

Citigroup Global Markets Inc., on behalf of itself and the other Underwriters shown on the cover page hereof (the ***"Underwriters"***), is expected to enter into a purchase contract (the ***"Purchase Contract"***) with the Commission pursuant to which the Underwriters will agree, subject to certain customary conditions precedent to closing, to purchase the 2020B Bonds from the Commission at a purchase price equal to $306,701,052.69 (representing the par amount of the 2020B Bonds, plus original issue premium of $65,957,700.75, and less an underwriters' discount of $881,648.06). Pursuant to the Purchase Contract, the Underwriters will be obligated to purchase all of the 2020B Bonds if any of such 2020B Bonds are purchased.

The 2020B Bonds may be offered and sold to certain dealers (including the Underwriters and other dealers depositing such 2020B Bonds into investment trusts) at prices lower than such public offering prices (and such public offering prices may be changed, from time to time, by the Underwriters) only after a public offering of the 2020B Bonds at the initial offering price. The Commission has agreed to be liable, to the extent permitted by Pennsylvania law, to the Underwriters to the extent of all losses, claims, damages and liabilities arising out of incorrect statements or information contained in this Official Statement or material omissions therein, except for information furnished by the Underwriters, and with respect to certain other matters.

The obligation of the Underwriters to accept delivery of the 2020B Bonds is subject to the terms and conditions set forth in the Purchase Contract, the approval of legal matters by counsel and other conditions. The Underwriters may over-allot or effect transactions which stabilize or maintain the market price of the 2020B Bonds at levels above that which might otherwise prevail in the open market. Such stabilizing, if commenced, may be discontinued at any time.

The Underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage services. Certain of the Underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various financial advisory and investment banking services for the Commission, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the Underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities, which may include credit default swaps) and financial instruments (including bank loans) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve securities and instruments of the Commission.

The Underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

Citigroup Global Markets Inc. has entered into a retail distribution agreement with Fidelity Capital Markets, a division of National Financial Services LLC (together with its affiliates "Fidelity") Under this distribution agreement, Citigroup Global Markets Inc. may distribute municipal securities to retail investors at the original issue price through Fidelity. As part of this arrangement, Citigroup Global Markets, Inc. will compensate Fidelity for its selling efforts.

PNC Capital Markets LLC, an Underwriter for the 2020B Bonds, may offer to sell to its affiliate, PNC Investments LLC, securities in PNC Capital Markets LLC's inventory for resale to PNC Investments' customers, including securities such as the 2020B Bonds. PNC Capital Markets LLC may share with PNC Investments LLC a portion of the fee or commission paid to PNC Capital Markets LLC if any 2020B Bonds are sold to customers of PNC Investments LLC.

U.S. Bancorp is the marketing name of U.S. Bancorp and its subsidiaries, including U.S. Bancorp Investments, Inc. ("USBII"), which is serving as an underwriter of the 2020B Bonds, and U.S. Bank National Association ("USBNA"), which is serving as Trustee and Authenticating Agent for the 2020B Bonds.

RATINGS

Moody's Investors Service, Inc. (***"Moody's"***), Fitch Ratings (***"Fitch"***), and Kroll Bond Rating Agency (***"Kroll"***) have assigned their municipal bond ratings of "A1" (stable outlook), "A+" (stable outlook), and "AA-" (stable outlook), respectively, to the 2020B Bonds.

On July 2, 2019, S&P Global Ratings affirmed its long term underlying ratings on the Commission's senior-lien turnpike revenue bonds and subordinate revenue bonds outstanding, at "A+" and "A", respectively. It should be noted, however, that the Commission has not requested S&P ratings on the 2020B Bonds which constitute this offering.

An explanation of the significance of each of such ratings and any outlook may be obtained from the rating agency furnishing the same at the following addresses: Moody's Investors Service, Inc., 7 World Trade Center at 250 Greenwich Street, New York, New York 10007; Fitch Ratings, 33 Whitehall Street New York, New York 10004 and Kroll Bond Rating Agency, 845 Third Avenue, New York, New York 10022. Certain materials and information not included in this Official Statement may have been furnished to such rating agencies. A rating is not a recommendation to buy, sell or hold securities. There is no assurance that such ratings will continue for any given period of time or that they may not be lowered or withdrawn entirely by the rating agencies, or any of them, if, in their or its judgment, circumstances so warrant. Any such downward change in or withdrawal of such ratings, or any of them, may have an adverse effect on the market price of the 2020B Bonds.

Except as provided in the Disclosure Agreement, neither the Underwriters nor the Commission have undertaken any responsibility to bring to the attention of the holders of the 2020B Bonds any proposed or actual change in or withdrawal of any rating and neither the Underwriters nor the Commission have undertaken any responsibility to oppose any proposed change or withdrawal. See "CONTINUING DISCLOSURE" above.

LITIGATION

General

There is no controversy or litigation of any nature now pending or threatened restraining or enjoining the issuance, sale, execution or delivery of the 2020B Bonds, or in any way contesting or affecting the validity of the 2020B Bonds or any proceedings of the Commission taken with respect to the offer or sale thereof, or the pledge or application of any monies or security provided for the payment of the 2020B Bonds, the existence or powers of the Commission or the construction of the Commission's Capital Project.

The Commission is covered by Act No. 152, approved September 28, 1978, which provides for a limited waiver of sovereign immunity by the Commonwealth. Damages for most losses are limited to $250,000 for each plaintiff or $1,000,000 in the aggregate.

The Commission is subject to claims for personal injury and/or property damage pending against the Commission pertaining to matters normally incidental to routine operations. Currently, none of such claims, individually or in the aggregate, are deemed to expose the Commission to a material risk of loss.

Certain Litigation

The Commission may be subject to additional litigation or other actions from time to time in the future which cannot be predicted at this time. See "CERTAIN RISK FACTORS – Litigation and Other Actions Against the Commission" herein.

LEGAL MATTERS

Certain legal matters with respect to the 2020B Bonds will be passed upon by Cozen O'Connor, Philadelphia, Pennsylvania and Zarwin Baum DeVito Kaplan Schaer Toddy P.C., Philadelphia, Pennsylvania, Co-Bond Counsel. A copy of the proposed form opinion of Co-Bond Counsel which will be delivered on the date of issuance and delivery of the 2020B Bonds is set forth in APPENDIX D - "FORM OF OPINION OF CO-BOND COUNSEL." Certain other legal matters will be passed upon for the Underwriters by their Counsel, Saul Ewing Arnstein & Lehr LLP, Philadelphia, Pennsylvania, and for the Commission by its Chief Counsel, Doreen A. McCall, Esquire, and Dilworth Paxson LLP, Philadelphia, Pennsylvania, Disclosure Counsel to the Commission.

The various legal opinions to be delivered concurrently with the delivery of the 2020B Bonds express the professional judgment of the attorneys rendering the opinion as to the legal issues explicitly addressed therein. In rendering a legal opinion, the attorney does not become an insurer or guarantor of that expression of professional judgment, of the transaction opined upon, or the future performance of the parties to the transaction. In addition, the rendering of an opinion does not guarantee the outcome of any legal dispute that may arise out of the transaction.

FINANCIAL ADVISORS

The Commission has retained PFM Financial Advisors LLC, Philadelphia, Pennsylvania, and Phoenix Capital Partners, LLP, Philadelphia, Pennsylvania as Co-Financial Advisors with respect to the authorization and issuance of the 2020B Bonds. The Co-Financial Advisors are not obligated to undertake or assume responsibility for, nor have they undertaken or assumed responsibility for, an independent verification of the accuracy, completeness or fairness of the information contained in this Official Statement. Each Co-Financial Advisor is a registered independent advisory firm and is not engaged in the business of underwriting, trading, or distributing municipal securities or other public securities.

TRUSTEE

The Commission has appointed U.S. Bank National Association, Philadelphia, Pennsylvania, as the Trustee and Authenticating Agent under the Senior Indenture. The obligations and duties of the Trustee are as described in the Senior Indenture. The Trustee has not evaluated the risks, benefits or propriety of any investment in the 2020B Bonds, and makes no representation, and has reached no conclusions, regarding the validity of the 2020B Bonds, the security therefor, the adequacy of the provisions for payment thereof or the tax status of the interest on the 2020B Bonds. The Trustee has relied upon the opinions of Co-Bond Counsel for the validity and tax status of the interest on the 2020B Bonds as well as other matters set out in such opinions. Furthermore, the Trustee has no oversight responsibility, and is not accountable, for the use or application by the Commission of any of the 2020B Bonds authenticated or delivered pursuant to the Senior Indenture or for the use or application of the proceeds of such 2020B Bonds by the Commission.

Under the terms of the Senior Indenture, the Trustee shall not be responsible for any loss or damage resulting from any action or inaction taken in good faith in reliance upon an opinion of counsel and the Trustee is liable only for those damages caused by its gross negligence or willful misconduct.

Under the Senior Indenture, the Trustee is not required to take notice, and is not deemed to have notice, of any default under the Senior Indenture (except for defaults in payment of debt service by the Commission), unless the Trustee has been specifically notified in writing of such default by the owners of at least 25% in aggregate principal amount of the Outstanding Bonds (as defined in the Senior Indenture). In the absence of any such notice, the Trustee may conclusively assume no Event of Default exists. The summary of the Trustee's rights, duties, obligations and immunities is not intended to be a complete summary and reference must be made to the Senior Indenture for a complete statement of the Trustee's rights, duties, obligations and immunities.

TAX MATTERS

Federal Tax Exemption

The Internal Revenue Code of 1986, as amended (the "Code") contains provisions relating to the tax-exempt status of interest on obligations issued by governmental entities which apply to the 2020B Bonds. These provisions include, but are not limited to, requirements relating to the use and investment of the proceeds of the 2020B Bonds and the rebate of certain investment earnings derived from such proceeds to the United States Treasury Department on a periodic basis. These and other requirements of the Code must be met by the Commission subsequent to the issuance and delivery of the 2020B Bonds in order for interest thereon to be and remain excludable from gross income for purposes of federal income taxation. The Commission has covenanted to comply with such requirements.

In the opinion of Co-Bond Counsel, interest on the 2020B Bonds will be excluded from gross income for purposes of federal income taxation under existing statutes, regulations, rulings and court decisions. Interest on the 2020B Bonds is not treated as an item of tax preference under Section 57 of the Code for purposes of the federal alternative minimum tax.

The opinion of Co-Bond Counsel assumes the accuracy of the representations and certifications of the Commission and is subject to a number of qualifications and limitations, including the condition that the Commission comply with all applicable federal income tax law requirements that must be satisfied subsequent to the issuance of the 2020B Bonds in order that interest thereon continues to be excluded from gross income. Failure to comply with certain of such requirements could cause the interest on the 2020B Bonds to be includable in gross income retroactive to the date of issuance of the 2020B Bonds. The Commission has covenanted to comply with all such requirements.

In addition to the matters addressed above, prospective purchasers of the 2020B Bonds should be aware that ownership of the 2020B Bonds may result in collateral tax consequences to certain taxpayers, including, but not limited to, foreign corporations, certain S corporations, financial institutions, recipients of social security and railroad retirement benefits and property or casualty insurance companies.

Original Issue Premium. The 2020B Bonds (the "Premium Bonds"), have been sold with original issue premium. An amount equal to the excess of the initial public offering price of a Premium Bond over its stated redemption price at maturity constitutes premium on such Premium Bond. A purchaser of a Premium Bond must amortize any premium over such Premium Bond's term using constant yield principles. The amount of amortized bond premium (i) reduces the holder's basis in the Premium Bond for purposes of determining gain or loss for federal income tax purposes upon the sale or other disposition of the Premium Bond and (ii) is not allowed as a deduction for federal income tax purposes to the holder. Purchasers of any Premium Bonds, whether at the time of the initial issuance or subsequent thereto, should consult their own tax advisors with respect to the determination and treatment of premium.

No assurances can be given that amendments to the Code or other federal legislation will not be introduced and/or enacted which would cause interest on the 2020B Bonds to be subject, directly or indirectly, to Federal income taxation or adversely affect the market price of the 2020B Bonds or otherwise prevent the holders of the 2020B Bonds from realizing the full current benefit of the federal tax status of the interest thereon.

State Tax Exemption

In the opinion of Co-Bond Counsel, under the laws of the Commonwealth, as enacted and construed on the date hereof, the interest on the 2020B Bonds is exempt from Pennsylvania personal income tax and Pennsylvania corporate net income tax.

The 2020B Bonds and the interest thereon may be subject to state or local taxes in jurisdictions other than the Commonwealth under applicable state or local tax laws.

Co-Bond Counsel expresses no opinion regarding any other tax consequences related to the ownership or disposition of, or the amount, accrual or receipt of interest on, the 2020B Bonds.

This summary is based on laws, regulations, rulings and decisions now in effect, all of which may change. Any change could apply retroactively and could affect the continued validity of this summary. **Prospective purchasers should consult their tax advisors about the consequences of purchasing or holding the 2020B Bonds.**

MISCELLANEOUS

The financial data and other information contained herein have been obtained from the Commission's records, audited financial statements and other sources which are believed to be reliable. No guarantee is given that any of the assumptions, forecasts or estimates contained herein will be realized.

The references herein to the Enabling Acts, the 2020B Bonds, the Senior Indenture, Supplemental Indenture No. 57, the Subordinate Indenture, and the Disclosure Agreement are brief summaries of certain provisions thereof. Such summaries do not purport to be complete and, accordingly, are qualified by reference and are subject to the full texts thereof.

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Neither this Official Statement nor any other disclosure in connection with the 2020B Bonds is to be construed as a contract with the holders of the 2020B Bonds. Any statements made in this Official Statement involving matters of opinion or estimates, whether or not expressly so identified, are intended merely as such and not as representations of fact.

PENNSYLVANIA TURNPIKE COMMISSION

By: /s/ Richard C. Dreher
Richard C. Dreher
Chief Financial Officer

APPENDIX A

THE PENNSYLVANIA TURNPIKE COMMISSION

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APPENDIX A[1,2]

THE PENNSYLVANIA TURNPIKE COMMISSION

THE COMMISSION

General

The Commission is an instrumentality of the Commonwealth of Pennsylvania (the "***Commonwealth***") existing pursuant to an Act of the General Assembly of Pennsylvania approved on July 18, 2007, P. L. 169, No. 44 ("***Act 44***") and various Acts of the General Assembly approved on several dates, including the Act of May 21, 1937, P.L. 774, Act 211; the Act of May 24, 1945, P.L. 972; the Act of February 26, 1947, P.L. 17; the Act of May 23, 1951, P.L. 335; the Act of August 14, 1951, P.L. 1232; the Act of September 30, 1985, P.L. 240, No. 61 ("***Act 61***") to the extent not repealed by Act 44; the Act of August 5, 1991, P.L. 238, No. 26 ("***Act 26***") and the Act of November 25, 2013, P.L. 974, No. 89 ("***Act 89***") (collectively, the "***Enabling Acts***").

Pursuant to the Enabling Acts, the Commission has the power to construct, operate and maintain the Pennsylvania Turnpike System (as further described herein, the "***System***" or the "***Turnpike System***"). The Commission's composition, powers, duties, functions, duration and all other attributes are derived from the Enabling Acts. The Enabling Acts may be modified, suspended, extended or terminated at any time by further legislation.

The Commission is composed of five members, including one ex officio member, the Secretary of the Department of Transportation of the Commonwealth of Pennsylvania ("***PennDOT***"). Any vacancy in the membership of the Commission (other than the Secretary of Transportation) must be filled by appointment of the Governor, with the advice and consent of two-thirds of the members of the Pennsylvania Senate. Act 89 enacted additional provisions pertaining to membership of the Commission. The term of confirmed members of the Commission (other than the Secretary of Transportation) is a period of four years and members may serve a maximum of two terms. Upon the expiration of a term, a member may continue to hold the office of Commissioner for a period of 90 days or until their successor is appointed and qualified, whichever is less. The limitations on Commissioner terms under Act 89 do not apply to members of the Commission originally confirmed prior to Act 89's effective date.

The present members of the Commission and the expiration dates of their respective terms (which, in the case of all of the members of the Commission except Commissioner Wozniak, would be extended until reappointment or until a successor is appointed and confirmed) are as follows:

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1 Capitalized terms used in this Appendix A and not otherwise defined have the meanings ascribed in the forepart of this Official Statement or in Appendix C of this Official Statement.

2 Included in this Appendix A are links to certain additional materials. Unless otherwise noted herein, this Appendix A includes by reference the information contained in the linked materials, but only as such information appears on the linked websites as of the date of this Official Statement. The inclusion of these links is not intended to be a republication herein of any information contained on such websites.

Yassmin Gramian, PE, is the current Chair of the Commission and she was confirmed as the Secretary of PennDOT by the Pennsylvania Senate on May 27, 2020. At PennDOT, she oversees programs and policies affecting highways, urban and rural public transportation, airports, railroads, ports, and waterways. She manages PennDOT's annual budget, which is invested in Pennsylvania's approximately 120,000 miles of state and local highways and 32,000 state and local bridges. Under her leadership, PennDOT is directly responsible for nearly 40,000 miles of highway and roughly 25,400 bridges. She also has oversight of the Commonwealth's 11.8 million vehicle registrations and 10.3 million driver's licenses and IDs.

Drawing on her years of technical expertise as an engineer in the transportation and infrastructure industry, she is focused on developing forward-looking strategies that deliver innovative solutions for communities and transportation networks across the Commonwealth.

Gramian has more than 30 years of experience in operations, design, and management of transportation infrastructure systems, including highway, tolling, bridge, and railroad projects. Prior to joining PennDOT, she served as a senior vice president and business development director for a leading international engineering firm. She was responsible for growth of the company's transportation and infrastructure sector in the Northeast Region.

In her career, she was responsible for several signature projects, including Philadelphia's Roosevelt Boulevard Multimodal Corridor Program, SEPTA Subway Concourse Improvement Project, Amtrak's Keystone Corridor Infrastructure Rehabilitation and Reconstruction, PATCO Ben Franklin Bridge Track Rehabilitation, PennDOT's Central Susquehanna Valley Transportation Project's US-15 Susquehanna River Bridge, and Philadelphia Airport Terminal F Modernization. Her work in Pennsylvania has resulted in numerous awards, including 2013 Best Project award by Engineering News-Record Mid-Atlantic and multiple awards from the American Council of Engineering Companies of Pennsylvania.

Gramian earned master's and bachelor's degrees in civil engineering from the University of Michigan and completed the Tuck Management Training Program at Dartmouth College. She is a professional engineer in Pennsylvania, Delaware, New Jersey, and Florida.

William K. Lieberman is the current Vice Chair of the Commission, and he was appointed to serve as a Commissioner in July 2010. Mr. Lieberman previously served as Chair of the Commission from January 2011 until January 2015. Mr. Lieberman has been President of The Lieberman Companies, an insurance and pension provider, since 2003. He serves on the board of AMPCO Pittsburgh. A graduate of The Pennsylvania State University, he is a University of Pittsburgh Trustee and former Chair of the Manchester-Bidwell Corp., Pittsburgh, Pennsylvania. Mr. Lieberman was re-nominated to serve as a Commissioner by Governor Tom Wolf and his re-nomination to serve another four-year term as a Commissioner was unanimously confirmed by the Senate in November 2019. His term expires in November 2023.

John N. Wozniak is the current Secretary/Treasurer of the Commission, and he was appointed to serve as a Commissioner in July 2017. Mr. Wozniak served as a Pennsylvania State Senator from the 35th District from 1997 to 2016. Prior to that, he served as a member of the Pennsylvania House of Representatives from the 71st District from 1981 to 1996. Mr. Wozniak graduated from the University of Pittsburgh at Johnstown in 1978 with a B.A. in Economics. His term expires in July 2021.

Pasquale T. Deon, Sr., an established businessman has served as a Commissioner since 2002. Mr. Deon is Chair of the Board of Directors of the Southeastern Pennsylvania Transportation Authority (SEPTA). He is also a service-industry entrepreneur involved in real-estate development, beverage distribution and construction services. He is the owner of WBCB-1490AM Radio, Levittown, Pennsylvania. Commissioner Deon was re-nominated to serve as a Commissioner by Governor Tom Wolf and his re-nomination to serve another four-year term as a Commissioner was unanimously confirmed by the Senate in May 2018. His term expires in May 2022.

Wadud Ahmad was nominated by Governor Wolf to serve as a Commissioner on May 11, 2020 and confirmed by the Pennsylvania Senate on September 23, 2020. Mr. Ahmad is a founding partner in Ahmad Zaffarese LLC. Prior to forming Ahmad Zaffarese, Mr. Ahmad served as an Assistant District Attorney in Philadelphia and was a board member on the Pennsylvania Intergovernmental Cooperation Authority and the Pennsylvania Tobacco Settlement Investment Board. Mr. Ahmad currently also serves as the Vice Chairman of the Delaware River Joint Toll Bridge Commission.

Executive Personnel

Mark P. Compton assumed the position of Chief Executive Officer of the Commission on February 1, 2013. Mr. Compton previously served as Deputy Secretary of Administration of PennDOT, overseeing eight bureaus within the agency, including: human resources, information systems governance, business solutions and services, infrastructure and operations, and fiscal management. Before joining PennDOT, Mr. Compton served as Director of Government Affairs for all four companies of American Infrastructure, a heavy-duty civil construction company headquartered in Worcester, Pennsylvania. Prior to that, he worked in various public and private operations, focusing largely on transportation, construction and economic development.

Craig R. Shuey is the Chief Operating Officer of the Commission. He joined the Commission in August 2009 as Director of Government Affairs and was named Chief Operating Officer in January 2011. Mr. Shuey served as Acting Chief Executive Officer from October 2012 to February 2013. Prior to joining the Commission, Mr. Shuey was executive director of the Pennsylvania Senate Transportation Committee from 2001 to 2009. He also served as a representative on the Senate Transportation Commission and on various advisory committees in areas such as air, rail, freight movement and safety.

Richard C. Dreher was named Acting Chief Financial Officer in July 2020 and Chief Financial Officer in August 2020. Prior to that, he held the position of Assistant Chief Financial Officer for Financial Management with the Commission where he managed and coordinated the Commission's municipal debt activities and oversaw the Debt and Derivatives, Risk Management, Treasury and Investment departments. Before joining the Commission in 2013, Mr. Dreher served as the Director of the Bureau of Revenue, Capital and Debt in the Governor's Office of the Budget, Commonwealth of Pennsylvania from 2003 to 2013 where he managed the

Commonwealth of Pennsylvania's general obligation debt and directed the Commonwealth's Capital Budget program. In addition, during his time at the Governor's Office of the Budget from 1997 through 2013, Mr. Dreher managed and expanded the largest economic redevelopment program in the Commonwealth totaling over $4 billion and involving nearly 2,000 projects across the Commonwealth.

Bradley J. Heigel, P.E., was named Chief Engineer in April 2012. He was previously employed by the Commission from 1990 to 2010 and served as the Total Reconstruction Program Manager from 2000 to 2010. From 2010 to 2012, he was employed as a Vice President with Michael Baker, Jr., Inc., an engineering unit of Michael Baker Corporation.

Doreen A. McCall, *Esq.*, has been the Chief Counsel since July 2005. Prior to that time, she served as Chief Counsel to the Pennsylvania Historical and Museum Commission from February 2003 to July 2005 and as Deputy General Counsel in the Governor's Office of General Counsel from April 2000 to January 2003. From September 1996 to April 2000, she was an Assistant General Counsel and from November 1993 to August 1996, she was a staff attorney in the Office of Inspector General.

Ray A. Morrow was named the Chief Compliance Officer in July 2014. Prior to being named the Chief Compliance Officer, Mr. Morrow served the Commission as its Acting Chief Compliance Officer and Inspector General. Mr. Morrow joined the Commission in January 2014. Prior to joining the Commission, Mr. Morrow had an extensive career with the Federal Bureau of Investigation (FBI) first from 1977 to 1978. From 1978 to 1980, Mr. Morrow served with the U.S. Secret Service Uniformed Division assigned to the White House and the Presidential Protective Detail. From 1980 to 1987, Mr. Morrow served as an Executive Protection Specialist for Allegheny International ("***AI***"), a Fortune 500 company, assigned to protect the President of AI. Then, from 1987 to 2007, Mr. Morrow once again joined the FBI as a Special Agent culminating his career as the Special Agent in Charge of the FBI's Pittsburgh Field Office. Mr. Morrow served as a Senior Compliance Investigator for the Siemens Corporation from 2010 to 2013.

Enabling Acts

Act 44 and the Act 44 Funding Agreement

On July 18, 2007, Act 44 was enacted, creating a "public-public partnership" between the Commission and PennDOT to provide funding for roads, bridges and transit throughout the Commonwealth. Subsequently, in order to, among other things, effectuate the provisions of Act 44 requiring the Commission to make substantial annual payments to PennDOT as described below, the Commission and PennDOT entered into a Lease and Funding Agreement (the "***Act 44 Funding Agreement***"), incorporating many of the terms of Act 44.

The Act 44 Funding Agreement also granted the Commission the option to lease the portion of Interstate I-80 ("***I-80***") located in the Commonwealth from PennDOT upon, among other things, the approval of the Federal Highway Administration ("***FHWA***") of the conversion of such portion into a toll road (the "***Conversion***"). The Conversion was not approved by FHWA and neither the Commission nor PennDOT appealed the decision. The Commission did not exercise its option to lease such portion of I-80, and the period during which the Commission could exercise its option under the Act 44 Funding Agreement lapsed on October 14, 2010 without the Commission effectuating the Conversion or having the ability to do so in the future. Under existing law, including Act 89, all legal, financial and operational responsibility for I-80 remains with PennDOT.

Pursuant to Act 44 and the Act 44 Funding Agreement, because the Conversion did not occur, the Commission was obligated to make scheduled annual payments of $450 million to PennDOT through 2057, payable in equal quarterly installments, with $200 million of the scheduled annual payment supporting road and bridge projects and $250 million supporting transit projects throughout the Commonwealth. But see "*Act 89 and the Act 89 Amendment*" below as to subsequent changes to such annual payments.

Act 89 and the Act 89 Amendment

On November 25, 2013, Act 89 was enacted to provide substantial additional and sustained investment in the Commonwealth's aging transportation infrastructure. Fully implemented as of Fiscal Year 2018, the revenue enhancements enacted in Act 89 are generating substantial additional funds each year for investment in the Commonwealth's transportation infrastructure.

Act 89 also enacted substantial revisions to the Commission's transportation funding obligations under Act 44 and authorized the Commission and PennDOT to immediately amend the Act 44 Funding Agreement to reflect the statutory provisions of Act 89. On April 4, 2014, the Commission and PennDOT executed Amendment Number One to Lease and Funding Agreement (the "***Act 89 Amendment***" and together with the Act 44 Funding Agreement, the "***Original Amended Funding Agreement***").

In accordance with Act 89 and the Original Amended Funding Agreement, the Commission's aggregate annual payment to PennDOT for Fiscal Year 2013-2014 through Fiscal Year 2021-2022 is $450 million and, in accordance with Act 89, the Commission must pay at least $30 million of such annual amount from current revenues with the remainder expected to be funded by bonds issued under the Subordinate Revenue Indenture (hereinafter defined). From 2017 through 2020, by policy, the Commission provided $50 million from current revenues to fund a portion of its annual payment to PennDOT. In Fiscal Year 2021 and Fiscal Year 2022, the Commission anticipates that $30 million of its annual payment to PennDOT will be funded from current revenues.

On July 31, 2018, the Commission and PennDOT executed Amendment Number Two to Lease and Funding Agreement (the "***Amendment***"). Pursuant to the terms of the Amendment, the Commission and PennDOT agreed to extend the due date for the Commission's July 31, 2018 Annual Base Payment of $50 million and Annual Additional Payment of $62.5 million to October 31, 2018 or such later date in fiscal year ending June 30, 2019 as agreed to by the Commission and PennDOT. Further, the Commission and PennDOT agreed that the due date for any subsequent Annual Base Payment and Annual Additional Payment in the fiscal year ending June 30, 2019 could also be extended to any later date, not later than June 30, 2019, as agreed to by the Commission and PennDOT. By letter agreement from the Commission to PennDOT dated

April 22, 2019, PennDOT confirmed and acknowledged that the due date for the Commission's July 31, 2018, October 31, 2018, January 31, 2019 and April 30, 2019 Annual Base Payments and Annual Additional Payments was extended to June 28, 2019 or such later date, not later than June 30, 2019, as the parties mutually agreed. On June 27, 2019, the Commission paid PennDOT $450 million, which represented the Commission's Fiscal Year 2018 Act 44/89 funding obligation. For more information on the total amount paid by the Commission under the Amended Funding Agreement, see the table on page A-8.

In response to the impacts of the COVID Pandemic, in particular, declines in Commission traffic and revenue and disruptions in the capital markets, PennDOT and the Commission negotiated an Amendment Number Three to the Lease and Funding Agreement, which was executed by all parties on June 11, 2020 (the "***Amendment Three,***" and together with the Original Amended Funding Agreement and the Amendment, the "***Amended Funding Agreement***").

Pursuant to the terms of the Amendment Three, the Commission and PennDOT agreed to extend the due date for the Commission's July 31, 2020 Annual Base Payment of $50 million and Annual Additional Payment of $62.5 million to October 31, 2020 or such later date in the Commonwealth's fiscal year ending June 30, 2021 as may be agreed to by the Commission and PennDOT. Further, the Commission and PennDOT agreed that the due date for any subsequent Annual Base Payment and Annual Additional Payment in the fiscal year ending June 30, 2021 may also be extended to any later date, not later than June 30, 2021, as may be agreed to by the Commission and PennDOT.

Commencing in Fiscal Year 2022-2023 through the term of the Amended Funding Agreement, the Commission's aggregate annual payment to PennDOT is $50 million, which amount shall be paid from then current revenues of the Commission. Act 89 relieves the Commission from over $15 billion in future transfers to PennDOT during Fiscal Years 2023 through 2057. Further, Act 89 revises the use of the Commission's scheduled annual payments. Effective on July 1, 2014, none of the Commission's scheduled annual payments may be used to support Commonwealth road and bridge projects. Instead, $420 million of the scheduled annual payment may be used to support mass transit capital and operating needs and other transportation programs of statewide significance, and $30 million shall be used to support multi-modal projects, which may include: aviation projects; rail freight projects; port projects; bicycle projects and pedestrian projects. The Commission's $50 million scheduled annual payment, which commences in Fiscal Year 2022-2023, will support mass transit capital and operating needs. The table under "*Act 44 Payments to PennDOT for Roads, Bridges and Transit*" below indicates the amounts that have been paid to date by the Commission. The Commission's obligation to pay the annual debt service on any Special Revenue Bonds (hereinafter defined) on a timely basis continues to be part of its payment obligation under the Amended Funding Agreement.

The Amended Funding Agreement terminates on October 14, 2057.

The Enabling Acts provide that if the Secretary of the Budget notifies the Commission of a failure to make a payment to PennDOT under the Amended Funding Agreement, all actions of the Commission taken by a vote of the Commissioners thereafter must be approved by a unanimous vote of all Commissioners until such time as the payment is made. However, a unanimous vote is not required if it would prevent the Commission from complying with covenants with "current bondholders, debt holders or creditors." These voting procedures have never been used as the Commission has not missed any payments under the Amended Funding Agreement.

The Commission is required by the terms of the Amended Funding Agreement and Act 44 to fix and adjust tolls at levels that will generate revenues (together with other available moneys) sufficient to pay, among other things, amounts to PennDOT pursuant to the Amended Funding Agreement when due and other obligations of the Commission, and the Commission has covenanted in the Subordinate Revenue Indenture to set tolls at a level sufficient to meet its coverage obligations taking into account any additional debt incurred in order to make such payments.

The Commission believes that System revenues should enable it to satisfy its payment obligations as set forth in the Amended Funding Agreement.

Act 44 Payments to PennDOT for Roads, Bridges and Transit

The Enabling Acts provide that all required payments under the Amended Funding Agreement or as required by the Enabling Acts shall be subordinate obligations of the Commission payable solely from the General Reserve Fund after meeting all other Commission requirements pursuant to any financial documents, financial covenants, liquidity policies or agreements in effect at the Commission. Pursuant to Act 44 and the Act 44 Funding Agreement, the Commission's payments to PennDOT over the seven Fiscal Years ended May 31, 2014 were allocated between deposits to the Commonwealth Motor License Fund (the "***Motor License Fund***") for road and bridge work and deposits into the Public Transportation Trust Fund for distribution to Pennsylvania's local and regional public transportation agencies for operating and capital purposes.

No portion of the payments of the Commission to be deposited into the Public Transportation Trust Fund may be made with proceeds of Special Revenue Bonds. In accordance with Act 89 and the Amended Funding Agreement, effective July 1, 2014, 100 percent of the scheduled annual payments of the Commission to PennDOT is being deposited into the Public Transportation Trust Fund and may be used to support transit operating and capital costs, multi-modal transportation capital project costs and alternative energy transportation capital project costs.

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As of the date of this Official Statement, the Commission has paid a total amount of $7,000,000,000 under the Amended Funding Agreement, as set forth in the following table (dollar amounts in millions).

Fiscal Year Ended May 31	Payments to Motor License Fund	Payments to Public Transportation Trust Fund	Total
2008	$450.0	$300.0	$750.0
2009	500.0	350.0	850.0
2010	500.0	400.0	900.0
2011	200.0	250.0	450.0
2012	200.0	250.0	450.0
2013	200.0	250.0	450.0
2014	200.0	250.0	450.0
2015	0.0	450.0	450.0
2016	0.0	450.0	450.0
2017	0.0	450.0	450.0
2018	0.0	450.0	450.0
2019	0.0	450.0	450.0
2020	0.0	450.0	450.0

Issuance of Bonds; Commission Payments

Under the Enabling Acts, the Commission is authorized and empowered, among other things, to issue turnpike revenue bonds, notes or other obligations (either senior on a parity basis or subordinate) to pay (i) pursuant to the Amended Funding Agreement, if applicable, the costs of construction, reconstructing, widening, expanding or extending I-80 or any other costs of I-80 and the System, (ii) certain amounts to PennDOT pursuant to the Amended Funding Agreement for purposes of funding PennDOT highway, road and bridge construction and maintenance programs in the Commonwealth (provided that, commencing in Fiscal Year 2014-2015, all payments to PennDOT under the Amended Funding Agreement will be deposited into the Public Transportation Trust Fund), (iii) costs of improvements to the System, and (iv) certain amounts into a Public Transportation Trust Fund pursuant to the Amended Funding Agreement, to be used for mass transit programs, multi-modal transportation programs and, other transportation programs of statewide significance, alternative energy transportation programs (provided that, pursuant to the terms of the Amended Funding Agreement, the proceeds of any Special Revenue Bonds may not be applied for payments to mass transit programs, multi-modal transportation programs or alternative energy transportation programs).

The bonds authorized to be issued by the Commission under Act 44 include up to $5 billion of Special Revenue Bonds, as described below. Proceeds of such bonds may be applied toward the satisfaction of the Commission's scheduled annual payment obligations under the Amended Funding Agreement and the Enabling Acts, except for that portion of the annual payment obligations to be deposited in the Public Transportation Trust Fund pursuant to the terms of the Amended Funding Agreement. Since all of the Commission's payments to

PennDOT under the Amended Funding Agreement are being deposited into the Public Transportation Trust Fund commencing July 1, 2014, as of such date, the Commission is no longer issuing Special Revenue Bonds to fund its obligations under the Amended Funding Agreement. See "*Statutory Limitations on the Incurrence of Special Revenue Bonds*" below. The Amended Funding Agreement provides that the Commission is obligated to pay all debt service due with respect to the Special Revenue Bonds.

Pursuant to the terms of the Subordinate Trust Indenture dated as of April 1, 2008 between the Commission and Wells Fargo Bank, N.A. (the "***Subordinate Revenue Indenture Trustee***"), as amended and supplemented (the "***Subordinate Revenue Indenture***"), the Commission has covenanted to pay to the Subordinate Revenue Indenture Trustee, and it has instructed U.S. Bank National Association, as trustee (the "***Senior Revenue Indenture Trustee***") under that certain Amended and Restated Trust Indenture originally dated as of July 1, 1986 and Amended and Restated as of March 1, 2001, between the Commission and the Senior Revenue Indenture Trustee, as supplemented and amended (the "***Senior Revenue Indenture***") to pay to the Subordinate Revenue Indenture Trustee, after payment of all required debt service on all Senior Revenue Indenture Obligations (defined below) and subject to the provisions of the Senior Revenue Indenture, out of the General Reserve Fund established under the Senior Revenue Indenture, such amounts as are required by the Subordinate Revenue Indenture, by a supplemental indenture to the Subordinate Revenue Indenture or by a parity swap agreement to pay, at the times specified, all amounts due in respect of the Subordinate Revenue Indenture Obligations (defined below) outstanding under the Subordinate Revenue Indenture or under a parity swap agreement.

Accordingly, the Commission is required to instruct and furnish a debt service schedule to the Senior Revenue Indenture Trustee providing (i) for the payment to the Subordinate Revenue Indenture Trustee out of available funds held in the General Reserve Fund of the amount from time to time necessary to satisfy all required deposits under the Subordinate Revenue Indenture to the Commission Payments Fund established under the Subordinate Revenue Indenture and (ii) for the payment of debt service on the outstanding Subordinate Revenue Indenture Obligations and all other payments required from time to time under the Subordinate Revenue Indenture and in any supplemental indenture to the Subordinate Revenue Indenture (collectively, the "***Commission Payments***").

Under the Subordinate Revenue Indenture, the Commission may, from time to time, issue additional bonds to satisfy its payment obligations under the Enabling Acts, including (a) bonds issued for the purpose of making payments to PennDOT to finance transit programs and other purposes pursuant to Act 44, as amended by Act 89, and which are not secured by payments from the Motor License Fund, but have a senior claim on Commission Payments (the "***Subordinate Revenue Bonds***") and (b) Special Revenue Bonds. The Commission intends that any long-term indebtedness to be issued under the Subordinate Revenue Indenture is to be paid solely from Commission Payments. Such obligations, if issued, are subordinate to the Turnpike Revenue Bonds (the "***Turnpike Revenue Bonds***") issued under the Senior Revenue Indenture. Such Subordinate Revenue Bonds will be parity obligations with the outstanding Subordinate Revenue Bonds already issued under the Subordinate Revenue Indenture. As of the date of this Official Statement, there are $5,666,035,384.85 aggregate principal amount of Subordinate Revenue Bonds outstanding under the Subordinate Revenue Indenture (including compounded amounts as of June 1, 2020 for outstanding capital appreciation bonds). The foregoing amount includes $291,850,000 aggregate principal amount of floating rate notes (FRNs) constituting a direct purchase obligation. See "CERTAIN FINANCIAL INFORMATION – Direct Purchase Obligations" for a summary of direct purchase obligations of the Commission. Other obligations incurred and outstanding under the Subordinate Revenue Indenture include the Commission's obligations under an interest rate swap agreement having a current notional amount of $291,850,000. Special Revenue Bonds have a right to payment from Commission Payments that is subordinate to the rights of payment of the holders of Subordinate Revenue Bonds issued under the Subordinate Revenue Indenture. APPENDIX E sets forth the existing debt service schedule for the Turnpike Revenue Bonds issued under the Senior Revenue Indenture and for the Subordinate Revenue Bonds issued under the Subordinate Revenue Indenture.

Statutory Limitations on the Incurrence of Special Revenue Bonds

Under the Enabling Acts, the Commission is authorized to issue, by resolution, Special Revenue Bonds (as defined in § 9511.2 of Act 44, and as issued as such under the Subordinate Revenue Indenture, the "***Special Revenue Bonds***") up to an aggregate principal amount of $5 billion, exclusive of original issue discount, for the purpose of paying bond related expenses and costs of PennDOT, including the costs of highway, road, tunnel and bridge construction, renovation and expansion, including acquisition of land, rights, machinery and equipment and certain finance charges relating thereto, planning, engineering, administrative and other expenses, and debt service. No more than $600 million in aggregate principal amount of such Special Revenue Bonds, exclusive of original issue discount, may be issued in any calendar year. No such bonds may be issued unless the Amended Funding Agreement is in effect, and no such bonds may be outstanding beyond the stated term of the Amended Funding Agreement at the time of issuance. Special Revenue Refunding Bonds (as defined in § 9511.9 of Act 44) shall not be deemed to count against the total or annual maximum issuance volume under Act 44. Pursuant to Act 89, Special Revenue Bonds may not be issued by the Commission to fund any portion of its annual payment obligation commencing July 1, 2014, as all of such annual payment obligation is to be deposited in the Public Transportation Trust Fund after such date, although Special Revenue Refunding Bonds could be issued.

Special Revenue Bonds have been issued under the Subordinate Revenue Indenture. As of the date of this Official Statement, there are $1,006,172,809.70 aggregate principal amount of Special Revenue Bonds outstanding under the Subordinate Revenue Indenture (including compounded amounts as of June 1, 2020 for capital appreciation bonds).

Should the Commission fail to timely make required debt service deposits for Special Revenue Bonds, the Subordinate Revenue Indenture Trustee shall proceed under the terms of Act 44 and a Memorandum of Agreement between PennDOT, the Office of the Budget of the Commonwealth and the Pennsylvania State Treasurer, dated July 16, 2010 (the "***MOA***"), to notify PennDOT of such default, and thereafter, PennDOT shall give notice to the Office of the Budget of the Commonwealth of such deficiency, the Office of the Budget of the Commonwealth shall request that the Treasurer of the Commonwealth transfer funds to the Subordinate Revenue Indenture Trustee in an amount necessary to cure such deficiency, and the Treasurer of the Commonwealth shall transfer such funds to the Subordinate Revenue Indenture Trustee but only from amounts available for such purpose in the Motor License Fund. The appropriation of money in the Commonwealth's Motor License Fund in respect of Special Revenue Bonds issued by the Commission under Act 44 is continuing and non-lapsing. The Commonwealth has no obligation to appropriate any funds, other than available funds on deposit in the Motor License Fund, for the payment of any such Special Revenue Bonds. Pursuant to the MOA, certain funds equal to the maximum annual debt service on outstanding Special Revenue Bonds are to be set aside (but not pledged) in the Motor License Fund for this purpose upon the issuance of Special Revenue Bonds. Funds in such amounts were set aside in the Motor License Fund in connection with the issuance of the Commission's Motor License Fund-Enhanced Turnpike Subordinate Special Revenue Bonds, Series A of 2010, Series B of 2010, Series A of 2011, Series B of 2011, Series A of 2012, Series B of 2012, Series A of 2013, Series B of 2013, Series A of 2014, First Refunding Series of 2016, First Refunding Series of 2017, Second Refunding Series of 2017, Third Refunding Series of 2017, First Refunding Series of 2019 and First Refunding Series of 2020. The Commission is obligated pursuant to the Amended Funding Agreement to reimburse the Treasurer of the Commonwealth for any amounts withdrawn from the Motor License Fund in order to cure a default in the payment by the Commission with respect to the annual debt service on any such Special Revenue Bonds. This reimbursement obligation is subject to and junior to the payment obligations of the Commission under the Special Revenue Bonds.

Rules Relating to Governance and Accountability Under the Enabling Acts

The Enabling Acts set forth certain rules relating to governance and accountability of the Commission, including, but not limited to: requiring the Commission to file an annual financial plan with the Pennsylvania Secretary of the Budget no later than June 1 of each year; to have an audit of the Commission's finances (including a review of its performance, procedures, operating budget, capital budget and debt) conducted by the Auditor General every two years (such audit to be paid for by the Commission); to adopt a comprehensive code of conduct for Commissioners and executive-level employees, which the Commission adopted on October 31, 2007 and further expanded and strengthened on January 7, 2014 and January 28, 2015; and upon request, at least one Commission member shall testify annually before the appropriations committee of the Pennsylvania House of Representatives and the Senate of Pennsylvania.

On June 1, 2020, the Commission submitted its financial plan for Fiscal Year 2021 (the "***Financial Plan***"). The Financial Plan reflects the terms of the Amended Funding Agreement. The Financial Plan also assumed the adoption of the Commission's Fiscal Year 2021 Ten-Year Capital Plan (defined herein), which was adopted by the Commission on July 21, 2020. The Financial Plan indicates that in Fiscal Year 2020 the Commission was able to meet all of its financial covenants and obligations under the Enabling Acts and was able to progress with its then-current Capital Plan. Given the ongoing and adverse effects to both the national and state economies due to the COVID Pandemic, the Commission plans to enhance the cost containment and efficiency measures it implemented within the past few years. The outbreak of the disease has affected travel, commerce and financial markets globally and is adversely affecting the Commission's Toll Revenues, operations, personnel and suppliers. While the full impact on the Commission is unknown at this time, the continued spread of COVID-19 is having a material adverse effect on the Revenues and operations of the Commission. Since mid-March, 2020, the Commission has taken several steps to try to mitigate the impact of the COVID Pandemic. Specifically, the Commission has: 1) instituted a hiring freeze for both "non-essential" management and union positions; 2) reduced its capital spending by 25% to include System protection projects only; 3) offered an early retirement program to management employees; 4) cut operating expenses; 5) implemented a work from home policy where feasible; 6) eliminated cash collection and in person contact in toll lanes; 7) delayed Act 44 payments until June 30, 2021 at the latest; and 8) lowered projected Fiscal Year 2021 debt service through three cash defeasances of principal totaling $160 million (one relating to Turnpike Revenue Bonds and two relating to Subordinate Revenue Bonds); the final two defeasances are anticipated to occur on December 1, 2020. In response to the continuing adverse impacts of the COVID Pandemic and its resulting change in safe operating procedures, the Commissioners unanimously approved a measure on June 2, 2020 to lay off approximately 500 employees, primarily fare collection-related employees, effective June 18, 2020. See "Recent Developments and Pending Legislation—*All Electronic Tolling Layoff Arbitration*." The Commission will continue permanent Cashless Tolling operations. Additional measures include an increase of the planned January 2021 toll increase from 5% to 6% and an additional 45% increase for Toll By Plate customers on the ticket system and the Mon-Fayette Expressway. The additional increase for Toll By Plate customers. is necessary to mitigate the loss of revenue due to unpaid Toll By Plate transactions. The Commission also anticipates reducing the annual growth of its operating budget from the planned 4% annual level to 2% annually for Fiscal Years 2021-2023. With these anticipated adjustments and together with future toll increases, the Commission is expected to meet its financial covenants and obligations under the Enabling Acts, and capital needs during Fiscal Year 2021.

The Financial Plan for Fiscal Year 2021 reflects data contained in CDM Smith's bring-down letter, dated May 29, 2020 (the "***May 2020 Bring-down Letter***") attached hereto as APPENDIX F. The Financial Plan for Fiscal Year 2021 along with the May 2020 Bring-down Letter include a downward revision to estimated toll revenue and traffic versus that which was contained in CDM Smith's 2018 Traffic and Revenue Forecast together with the bring-down letter dated April 2019. The Financial Plan for Fiscal Year 2021 and the May 2020 Bring-down Letter assumed a toll increase effective October 2020. In the May 2020 Bring-down Letter, as a result of COVID mitigation efforts, CDM Smith forecast a 14.2% decline in the total number of Fiscal Year 2021 transactions and an 8.2% decrease in Fiscal Year 2021 annual net toll revenues versus estimates contained in the Financial Plan for Fiscal Year 2020. As described below, the Commission has determined that the planned October 2020 toll increase will instead be effective January 2021. CDM Smith prepared a supplement, dated September 4, 2020 (the "***September 2020 Supplemental Letter***") to the May 2020 Bring-down Letter addressing the effect of this delay on toll revenue. The September 2020 Supplemental Letter is attached hereto as APPENDIX F. At present, it is anticipated that the Commission will request a 6-month update (December 2020) from CDM Smith to the May 2020 Bring-down Letter.

The operating budget adopted July 21, 2020 projects Fiscal Year 2021 operating expenses to be $426 million, which is 1.4% lower than the prior year budgeted amount of $432.0 million and the amount ($432.0 million) included in the Financial Plan. Actual operating expenses in Fiscal Year 2020 were $56 million below budget. The Financial Plan assumes the Commission will implement three years of below average growth (2%) in its annual operating budget to achieve its financial planning goals. After Fiscal Year 2023, the Financial Plan assumes the Commission will continue with controlled growth of 4% annual increases in operating expenses. Where possible, the Commission is actively managing its operations to limit the rate of growth in those operating costs directly under its control. However, significant portions (26.1%) of the Commission's operating budget are beyond its ability to control. These external cost drivers include the Commission's pension expense related to the State Employees Retirement System ("***SERS***") and the Commission's projected expense related to the Pennsylvania State Police. With respect to specific operating expenses that are under the control of the Commission, such costs are projected to decrease nearly 1% in Fiscal Year 2021 while the Commission's Pennsylvania State Police expense is estimated to increase 4.5% ($2.5 million).

The Financial Plan also continues to include more conservative debt structuring assumptions, first included in the Fiscal Year 2017 Financial Plan, to reduce the Commission's interest costs. These include assuming 30-year terms versus 40-year terms to amortize principal more quickly, eliminating the planned use of capital appreciation bonds and other deferred interest products in the future, and assuming a portion of future debt issuances are based on level debt service assumptions rather than on escalating debt service. Finally, the Financial Plan maintains debt service coverage ratios for all toll revenue supported debt above policy level constraints.[3]

The Financial Plan concludes that the Commission will continue to meet all of its indenture covenants and all of its other obligations through the Fiscal Year 2057. However, as a forward-looking report, the Financial Plan makes certain assumptions, including future toll increases, to reach its conclusion that the financial covenants, obligations under the Enabling Acts, and capital needs will be met beyond Fiscal Year 2021. Key among these assumptions is the Commission's ability to raise all tolls throughout the System. The Financial Plan reflects the full year effects of the January 2020 toll increase and the partial year impacts of the proposed October 2020 toll increase. On July 21, 2020, the Commissioners voted unanimously to adopt a January 2021 toll increase of 6% along with the implementation of an additional 45% increase for Toll By Plate use on the ticket system and the Mon-Fayette Expressway, also effective in January 2021. The net effect of delaying the toll increase from October 2020 to the Commission's traditional January (2021) implementation date is an estimated $34.6 million decrease in the Fiscal Year 2021 estimated toll revenues.

The Financial Plan assumes the $450 million reduced level of funding obligations required by the Enabling Acts through Fiscal Year 2022 and the $50 million funding level from Fiscal 2023 through Fiscal Year 2057. No assurances can be made by the Commission with respect to the assumptions made or conclusions reached in the Financial Plan. A complete copy of the Financial Plan is available on the Commission's website at https://www.paturnpike.com/pdfs/business/finance/Act_44_Financial_Plan_Fiscal_Year_2021.pdf.[4] See "THE COMMISSION – Enabling Acts" above.

3 Projected Fiscal Year 2021 debt service coverage ratios are 3.68x for Turnpike Revenue Bonds, 1.76x for Subordinate Revenue Bonds and 1.61x for Special Revenue Bonds, exceeding the Commission's policy target. Projected Fiscal Year 2021 debt service coverage ratios reflect the defeasance of $160 million in aggregate of Turnpike Revenue Bonds and Subordinate Revenue Bonds described above under "THE COMMISSION—Enabling Acts-*Rules Relating to Governance and Accountability Under the Enabling Acts*.. See also "CERTAIN FINANCIAL INFORMATION – Financial Policies and Guidelines" below.

4 The information contained on such website link is not incorporated by reference in this Appendix A.

See “CAPITAL IMPROVEMENTS – Ten-Year Capital Plan” for additional information on the Fiscal Year 2021 Capital Plan.

For information on the most recent performance audit by the Auditor General, see “CERTAIN FINANCIAL INFORMATION – Performance Audit by the Auditor General” below.

Recent Developments and Pending Legislation

Act 88 of 2012 (formerly House Bill 3 and Senate Bill 344) (“***Act 88***”) was signed into law on July 5, 2012. Act 88 authorizes “public-private” transportation partnership arrangements in the Commonwealth. The law allows the Commission, among other public entities, to enter into public-private partnerships for the construction of transportation infrastructure and facilities and for the lease of such facilities through long-term agreements. Act 88 prohibits a lease of the Turnpike Mainline without the further express approval of the General Assembly. However, the law does not restrict the Commission from entering into public-private partnership agreements which do not involve granting substantial oversight and control over the Turnpike Mainline to another entity, nor does it limit or preempt in any way the Commission’s ability to enter into certain types of public-private partnership agreements currently allowed under its Enabling Acts. The Public Private Transportation Partnership Board, established pursuant to Act 88, has issued an Implementation Manual & Guidelines for Public-Private Transportation Partnerships.

Act 165 of 2016 (formerly House Bill 2025) (“***Act 165***”) was signed into law on November 4, 2016. Act 165, among other things, allows for the suspension of vehicle registration for unpaid tolls. Specifically, the vehicle suspension process is triggered by the failure to pay six (6) or more violations or incurring unpaid tolls or administrative fees of $500. Additionally, Act 165 assists the Commission with the collection of unpaid out-of-state tolls by authorizing PennDOT to enter into a reciprocity agreement for purposes of toll collection and enforcement penalties with another state or tolling entity. PennDOT and the State of Delaware Department of Transportation, Division of Motor Vehicles (“***DelDOT***”) entered into the first reciprocity agreement under Act 165. The Intergovernmental Cooperation Agreement for Enforcement of Tolls, effective September 11, 2018, provides that, *inter alia*, PennDOT and DelDOT will suspend or hold the registration of vehicles upon unpaid tolls, consistent with the laws and regulations of the other state, upon the request of such state.

Act 86 of 2018 (formerly Senate Bill 172) (“***Act 86***”) was signed into law on October 19, 2018. Act 86 authorizes the Commission and PennDOT to conduct speed-enforcement operations inside active work zones using automated speed-enforcement systems and technology (the “***Automated System***”). The Automated System may only be used in active work zones when proper notice is provided to motorists, including two appropriate warnings signs that are conspicuously placed before the active work zone and notice on the Commission and/or PennDOT website(s). The Automated System will generate violation notices which will be sent, via first class mail, to all motorists that travel 11 mph or more over the posted speed limit in an active automated speed-enforcement work zone. A registered owner’s first-time violation will be a written warning, the second violation will be a $75 fine and the third and all subsequent violations will be a $150 fine. A 60-day pre-enforcement pilot period for the Automated System began on January 4, 2020. During the pre-enforcement period, violations were not issued. Enforcement began on March 9, 2020.

A resolution was adopted by the Senate of Pennsylvania on January 24, 2018 (the "***Senate Resolution***" or "***Senate Resolution 209***") that directs the Joint State Government Commission to conduct an analysis of a potential consolidation of interstate operations at PennDOT and the Commission. The Joint State Government Commission is the primary non-partisan research organization that serves the Pennsylvania General Assembly. Senate Resolution 209 tasked the Joint State Government Commission to, among other things, study all of the following:

1. Evaluate the cost savings, efficiencies and customer service improvements that may materialize as a result of consolidating the interstate operations, including personnel, equipment, facilities and highway administration.

2. Identify Federal and State laws that could impact the consolidation of interstate operations.

3. Review cases in other states where tolled bridges or roadways are effectively governed under a state department of transportation.

4. Evaluate and make recommendations on how to manage the Commission's debt as a result of the consolidation of interstate operations.

5. Evaluate and make recommendations on how to align contractual agreements, including labor agreements, bondholder agreements or other partnership agreements, as a result of the consolidation of interstate operations.

6. Propose legislation required to implement the consolidation of interstate operations.

On January 10, 2020, the Joint State Government Commission issued its report (the "***Report***") pursuant to the Senate Resolution regarding the potential consolidation of interstate operations at PennDOT and the Commission. The Report does not make any recommendations as to whether to consolidate the interstate operations of PennDOT or the Commission but rather identifies numerous issues that should be considered by the General Assembly. The Report also specifically responds to each of the items enumerated in the Senate Resolution.

1. With respect to potential cost savings or efficiencies from a consolidation, the Report concludes that minor operational efficiencies could be realized. Specifically, the Report estimates that $5.3 million in annual costs savings could be generated. When compared to the combined operating budgets of PennDOT and the Commission totaling $10.3 billion annually, the projected savings would total roughly 0.05%.

2. The Report concludes that existing federal law does not preclude a possible consolidation of interstate operations of PennDOT and the Commission.

3. An examination of other states managing both tolled and free highways concluded that in most instances the states created a semi-independent instrumentality to operate the tolled highways within the state transportation agency. Financial protection of a state's transportation agency and the state was the primary reason to do this so that the public is not directly obligated to repay the bonds for the tolled roads.

4. The Report concludes that the Commission's outstanding debt of over $14 billion "could serve as a potential barrier to its consolidation within the department." Further, the Joint State Government Commission concluded that "it is unclear as to how the Commonwealth can lawfully assume the commission's bond debt." Finally, as a result of the financial burden of the Commission's currently outstanding debt, the Report concludes that "the Commonwealth would be unlikely to expand its subsidy for transportation elsewhere in the Commonwealth based on turnpike revenue nor would it be likely to relieve the pressure to continue to generate turnpike revenue robust enough to service the outstanding debt."

5. Preexisting contractual obligations at both PennDOT and the Commission would also likely present many complications to a consolidation of interstate operations.

6. As required by the Senate Resolution, the Report includes proposed legislation to implement a consolidation of the interstate operations at PennDOT and the Commission. The proposed legislation does not appear to address or resolve many of the operational or legal obstacles identified in the Report.

7. The Commission cannot predict if the Report may lead to the introduction or adoption of legislation that may affect the Commission and/or its operations. Furthermore, the Commission cannot predict, at this time what action, if any, may be taken by the Pennsylvania General Assembly as a result of the Report, or what effect, if any, a consolidation of the Commission and PennDOT would have on the Commission's debt or the security for such debt.

Pennsylvania Legislative Proposals

From time to time, legislation is introduced in the Pennsylvania General Assembly (with respect to the Enabling Acts and otherwise) and in the United States Congress, the nature and content of which may affect the Commission. The Commission cannot predict whether any such legislation will be enacted into law, or how any such legislation may affect the Commission's ability to pay the Senior Revenue Indenture Obligations, the Subordinate Revenue Indenture Obligations, the Oil Franchise Tax Revenue Bonds or the Registration Fee Revenue Bonds, or to perform its financial obligations pursuant to the Enabling Acts.

The Pennsylvania House of Representatives and the Pennsylvania Senate convene for a two-year session on the first Tuesday after New Year's Day in odd numbered years and adjourn (Sine Die) on November 30 of the next even numbered year. The current 2019-20 legislative session began on Tuesday, January 1, 2019.

Legislation either in discussion or introduced in the Pennsylvania General Assembly during the 2019-20 legislative session, that if enacted would materially affect the Commission, includes the following:

- Senate Bill 778, which if enacted, would gradually reduce the Commission's Act 44 obligations through Fiscal Year 2021. Senate Bill 778 would reduce the Commission's Act 44 obligations from $450 million per year to: $400 million in Fiscal Year 2020, $200 million in Fiscal Year 2021 and $100 million in Fiscal Year 2022. Act 44 obligations would remain at $50 million from Fiscal Year 2023 through Fiscal Year 2057. Senate Bill 778 passed the Senate by a vote of 50-0 on June 25, 2019. The bill is now in the House of Representatives for consideration.

- In November 2019, the House of Representatives Transportation Infrastructure Task Force issued its report to address outdated infrastructure within the Commonwealth. Among the various recommendations contained in the Task Force report was a recommendation to accelerate the reduction of the Commission's Act 44 obligations. Currently, under Act 44, the Commission has an annual payment obligation of $450 million per year, with payments dropping to $50 million per year beginning in Fiscal Year 2023. The report recommends reducing the Commission's payments by $150 million per year over the next three years, dropping from the current levels of $450 million per year to $300 million in Fiscal Year 2021 and to $150 million in Fiscal Year 2022. The report recommends maintaining the Commission's obligation under Act 44/89 to make payments in the amount of $50 million per year commencing July 1, 2022.

- Similar to legislation that was introduced but not enacted during the prior legislative session, Senate Bill 45, which if enacted would waive tolls for emergency vehicles when either directly responding to an emergency situation or participating in the escort of a fallen firefighter, ambulance service or rescue squad member, law enforcement office or armed service member killed in the line of duty, was introduced and referred to the Senate Transportation Committee on January 11, 2019.

- Similar to legislation that was introduced but not enacted during the prior legislative session, Senate Bill 466, which if enacted would grant disabled veterans a 50% discount in toll rates for use of the Turnpike System, was introduced and referred to the Senate Transportation Committee on March 21, 2019.

- Senate Bill 451 and House Bill 329, which if enacted would create a Commuter and Commerce Toll Tax Credit against certain Pennsylvania taxes for Pennsylvania-based drivers and businesses of up to 50 percent of the cost of tolls paid within the Commonwealth with a $500 cap per filer. Senate Bill 451 was introduced in the Senate and referred to the Senate Finance Committee on March 19, 2019. House Bill 329 was introduced and referred to the House Finance Committee on February 1, 2019.

- House Bill 905, which if enacted would create the Turnpike-to-Port Freight Reimbursement Fund at the Pennsylvania Treasury for the purpose of providing

Commonwealth-funded reimbursement for certain Pennsylvania-based companies for their tolls when transporting goods to and from Pennsylvania port facilities along the Turnpike System, was introduced and referred to the House Transportation Committee on March 20, 2019.

- Senate Bill 177, which if enacted would create the Delinquent Debt Intercept Authority which would partner with the United States Treasury's Offset Program to collect outstanding money owed in delinquent taxes and debt (including tolls), was introduced and referred to the Senate Finance Committee on February 1, 2019.

- House Bill 2556, which if enacted would obligate the Commission to construct, operate and maintain portions of the Southern Beltway project, specifically, the sections from Interstate 79 to the Mon-Fayette Expressway near Finleyville and from State Route 885 in the City of Pittsburgh to the Mon-Fayette Expressway. The proposed legislation was introduced on May 28, 2020 and referred to the House Transportation Committee also on May 28, 2020.

- Senate Bill 1220, which if enacted would require the Commission to reinstate the toll and fare collection employees that were recently laid off on June 18, 2020. The proposed legislation was introduced on June 21, 2020 and referred to the Senate Transportation Committee also on June 21, 2020. On June 22, 2020 the Senate Transportation Committee voted 13-1 to approve Senate Bill 1220. The legislation was referred to the full Senate for its first consideration on June 22, 2020.

- House Bill 2863, which if enacted, would prohibit the Commission from implementing a portion of the approved January 2021 toll increase, specifically, the toll increase of 45% that would be applied exclusively to Toll By Plate customers on the Ticket System and the Mon-Fayette Expressway. The proposed legislation would require the same tolling rate for E-ZPass and Toll By Plate Customers for Pennsylvania registered vehicles. In addition, the proposed legislation would require the Commission to charge and collect a higher toll rate from motorists with an out-of-state E-ZPass. The proposed legislation was introduced on September 14, 2020 and referred to the House Transportation Committee also on September 14, 2020.

The Commission cannot predict what other legislation may be considered by the General Assembly during the 2019-20 or future legislative sessions or if any proposals or initiatives may lead to the adoption of legislation that may affect the Commission and/or its operations.

Commission Litigation

The following paragraphs summarize previous litigation that has concluded favorably for the Commission:

On March 15, 2018, several individuals, entities and associations involved in or related to the commercial trucking industry (the "***Trucking Plaintiffs***") filed a class action lawsuit against the Commission, several individuals in their individual capacity and in their official capacity related to the Commission, an individual in her individual capacity and in her official capacity as

Chair of the Commission and as Secretary of Transportation, and Governor Wolf, in both his individual and official capacity (the "***Defendants***"). The litigation was captioned Owner Operator Independent Drivers Association, Inc. et al. v. Pennsylvania Turnpike Commission et al., No. 1:18-cv-00608-SHR (United States District Court for the Middle District of Pennsylvania) (the "***Lawsuit***"). The Trucking Plaintiffs alleged that Act 44, as amended by Act 89 (hereinafter, "***Act 44/89***"), violated the Commerce Clause and the right to travel under the U.S. Constitution, either facially or as applied, because the Commission improperly imposes Turnpike tolls beyond that which is necessary for the operation and maintenance of the Turnpike System and that the Commission expends toll revenues for purposes other than the operation and maintenance of the Turnpike System.

The Lawsuit sought, among other things, the following injunctive remedies: (1) a permanent injunction enjoining the Commission from issuing any further bonds or incurring any additional debt for the purpose of making Act 44/89 payments; and (2) a permanent injunction prohibiting the Commission from using toll revenues to make payments on outstanding bonds issued to meet Act 44/89 obligations. Moreover, the Lawsuit sought certain monetary damages including a refund of a portion of certain tolls allegedly imposed upon the Trucking Plaintiffs' use of the Turnpike System in excess of what was reasonably necessary to pay for the cost of operating and maintaining the Turnpike System, together with any legally applicable interest and other compensation.

The Commission along with all of the other Defendants vigorously defended Act 44/89 and the propriety of the Commission's imposition and use of Turnpike Toll revenues in court.

On April 4, 2019, Judge Yvette Kane of the United States District Court for the Middle District of Pennsylvania (the "***District Court***") issued a decision in which the District Court determined that Tolls assessed by the Commission do not unduly burden interstate commerce or interfere with the constitutional right to travel and the Trucking Plaintiffs' complaint failed to state a claim upon which relief may be granted for violations of the dormant Commerce Clause or the constitutional right to travel. Accordingly, the District Court granted the Defendants' motions to dismiss the Trucking Plaintiffs' complaint. On August 13, 2019 the United States Court of Appeals for the Third Circuit affirmed the decision of the District Court, and subsequently denied the Trucking Plaintiffs' petition both for a panel rehearing and an en banc rehearing.

On December 11, 2019, the Trucking Plaintiffs filed a petition for a writ of certiorari in the United States Supreme Court (the "***Supreme Court***") asking the Supreme Court to review the decision of the Third Circuit. On January 27, 2020, the Supreme Court denied the Trucking Plaintiffs' petition for a writ of certiorari asking the Supreme Court to review the decision of the Third Circuit. Owner Operator Independent Drivers Association, Inc. et al. v. Pennsylvania Turnpike Commission et al., cert. denied (U.S. Jan. 27, 2020) (No. 19-762). This denial by the Supreme Court left undisturbed the favorable decision of the Third Circuit. The Trucking Plaintiffs did not file a petition for rehearing, as permitted by Supreme Court rules, and the period to file such a petition expired on February 21, 2020. Thus, the class action lawsuit has concluded favorably to the Commission.

All Electronic Tolling Layoff Arbitration

On June 2, 2020, the Pennsylvania Turnpike Commission ("Commission") approved the layoff of Fare Collection Department employees and Ticket Systems Audit Department employees due to the implementation of All Electronic Tolling ("AET"). On this same date, the Commission so informed representatives of Teamsters Local Union Nos. 77 and 250 (collectively the "Union"). The resulting layoff of approximately 492 bargaining unit employees was implemented effective as of June 18, 2020. In accordance with terms negotiated with the Union, the laid off employees may receive severance based on their years of seniority upon execution of a release of claims.

On or about June 25, 2020, the Union submitted three (3) grievances challenging the layoff of the bargaining unit employees due to the implementation of AET. In the grievances, the Union contends that the above referenced layoff violated provisions of the applicable collective bargaining agreements and terms of the Memoranda of Understanding and/or purported oral promises relating to the layoff of employees. In particular, the Union contends that the Commission was not permitted to lay off employees due to the implementation of AET until January 2022. The Union is requesting that the laid off employees be reinstated to their former positions and be made whole (including back pay).

The Commission contends that it has: (a) not violated any provisions of the applicable collective bargaining agreements, (b) not violated any provisions of the Memoranda of Understanding relating to the layoff of employees, and (c) acted consistently with the applicable provisions of the collective bargaining agreements and Memoranda of Understanding relating to the layoffs resulting from the implementation of AET. Accordingly, the Commission intends to vigorously defend its legal and contractual rights to implement AET and to lay off employees due to such implementation.

An arbitration in this matter is currently scheduled to be held on November 11, 2020.

Status of Delaware River Bridge

On January 20, 2017, the Delaware River Bridge was closed following the discovery of a fracture in a steel truss. Phase l of the work to stabilize the bridge was completed on January 23, 2017 while structural engineers engaged in a more comprehensive assessment and structural analysis to determine a permanent repair strategy. After the completion of certain repairs and extensive examination and testing of the bridge over several weeks by the Commission, the New Jersey Turnpike Authority (the "***NJTA***") and the Federal Highway Administration and their respective experts and consultants, the bridge was fully reopened to traffic on March 9, 2017. Although further minor repairs will be performed on the bridge in the coming months, it is anticipated that the bridge will remain open while such future repairs are being made.

The bridge is jointly owned and maintained by the Commission and the NJTA and all costs of operation, maintenance and repair of the bridge are shared equally by the Commission and the NJTA. The Commission estimates that its 50% share of the costs of the repair, examination and testing of the bridge will be approximately $7.5 million, which will be paid by the Commission from bond proceeds as part of its Fiscal Year 2021 Capital Plan. The

Commission's Traffic and Revenue consultant has projected that the closure of the bridge resulted in the Commission incurring a loss of toll revenue on the Turnpike during the period between January 20, 2017 and March 9, 2017 of approximately $14 million (1.8 million transactions).

In connection with the foregoing, the Commission has concluded with its insurer that the costs associated with the bridge repairs along with lost revenues relating to the bridge closure, will be covered under its All Risk insurance policy (subject to applicable deductibles). The insurer accepted the Commission's claim on February 7, 2018. The Commission has met its $5 million deductible and has received $9.9 million in final settlement of the claim. The Commission maintains a $200 million (per occurrence) All Risk insurance policy including loss of business income coverage as further described under "CERTAIN OTHER INFORMATION - Insurance" below.

In collaboration with the NJTA, a Request for Information (RFI) regarding the Delaware River Bridge was released via PennDOT's P3 Office on November 18, 2019. The RFI provided an opportunity for respondents to offer feedback on project scope, project delivery options and financing. Twenty-three (23) responses were received by January 10, 2020. Respondent team members include P3 concessionaires (12 of 23), contractors (6 of 23) and designers (5 of 23) with experience in developing and/or financing large transportation infrastructure projects. Evaluation of the responses are ongoing.

Additional Matters

Consistent with recommendations of the Commonwealth's Transportation Funding Advisory Commission, the Commission continues to be actively engaged with other Commonwealth administrative agencies in initiatives to streamline project delivery and increase operational efficiencies. Among such undertakings are a number of collaborative programs with PennDOT in various administrative and technical areas, including integration of communication and information systems, standardization of manuals and publications, and coordination of training, operations, project planning and construction phasing (all as outlined in an August 2011 report entitled *Mapping the Future between the Pennsylvania Turnpike Commission and the Pennsylvania Department of Transportation*). Meetings of Commission management with executives of both Pennsylvania Department of Environmental Protection and PennDOT continue to be held on a regular basis to discuss issues, define direction and explore future collaborative initiatives.

THE TURNPIKE SYSTEM

General

The present Turnpike System is composed of:

- the 359-mile Turnpike Mainline traversing the southern portion of Pennsylvania from east to west;

- the 110-mile north/south section identified as the Northeast Extension;

- the approximately 16-mile north/south connection, known as the Beaver Valley Expressway, which intersects the Turnpike Mainline in the southwestern portion of the Commonwealth;
- the approximately 13-mile Amos K. Hutchinson Bypass which adjoins the Turnpike Mainline near the New Stanton Interchange;
- the completed portion of the Mon/Fayette Expressway project totaling approximately 48 miles; and
- a 6-mile section of the Southern Beltway project from PA 60 to US 22.

For a more complete description of the Mon/Fayette Expressway and Southern Beltway projects, see "CAPITAL IMPROVEMENTS – Mon/Fayette Expressway and Southern Beltway" herein.

The Turnpike Mainline connects with the Ohio Turnpike at its western terminus and with the New Jersey Turnpike at its eastern terminus. The Turnpike Mainline commences on the eastern boundary of Pennsylvania at the Delaware River Bridge which connects the System to the New Jersey Turnpike. The Turnpike Mainline traverses the state in a westerly direction generally paralleling the southern border of the state immediately north of Philadelphia and south of Harrisburg to the vicinity of Somerset. West of Somerset, the highway follows a northwesterly direction to the northeast of Pittsburgh and to the Ohio state line, south of Youngstown, Ohio.

The System was constructed prior to the development of the National Interstate Highway System and no Federal Highway Trust Fund monies have been utilized in the construction of the Turnpike Mainline, Northeast Extension, Beaver Valley Expressway or Amos K. Hutchinson Bypass section of the Turnpike System. However, portions of the System have been designated as Interstate Routes. The Turnpike Mainline has been designated as Interstate Route 276 between the area where Interstate Route 95 crosses the System and the Valley Forge Interchange. With the September 2018 opening of the interchange connecting the Turnpike Mainline with Interstate 95, the portion of the Turnpike Mainline east of the new interchange has been designated as Interstate 95. The portion of the Turnpike Mainline west of the Valley Forge Interchange to the western terminus at the Ohio state line has been designated as Interstate Route 76. In addition, the Turnpike Mainline between the New Stanton and Breezewood Interchanges has been designated as Interstate Route 70. The Northeast Extension has been designated as Interstate Route 476. Portions of the Beaver Valley Expressway are designated as Interstate Route 376.

The System was constructed and opened to traffic in sections. The original Turnpike Mainline segment between Irwin and Carlisle was opened in 1940. Ten years later, in 1950, the 100-mile section between Carlisle and King of Prussia was completed and opened. After 1950, construction of new segments of the System occurred at more frequent intervals with the Turnpike Mainline segment placed in service as of May 1956. The initial segment of the Northeast Extension between the Turnpike Mainline and the temporary interchange just south of the Lehigh Tunnel was opened in 1955. The final segment, from the temporary interchange to Scranton, was completed and opened for traffic in November 1957.

The Delaware River Bridge, which connects the Turnpike Mainline with the New Jersey Turnpike System, is owned jointly by the Commission and the NJTA.

Interchanges and Service Plazas

The System has a total of 68 toll interchanges which connect it with major arteries and population centers along its 552-mile traffic corridor. Thirty-two of the interchanges are located on the Turnpike Mainline, including Turnpike Mainline barriers at the New Jersey and Ohio state lines, and 11 interchanges are situated on the Northeast Extension. The additional 25 interchanges are located on the Beaver Valley Expressway, Amos K. Hutchinson Bypass, and completed segments of the Mon/Fayette Expressway and Southern Beltway. In addition, the System also has six E-ZPass Only locations as discussed below under "E-ZPass Only".

There are 17 service plazas along the System providing gasoline and diesel fuel, other automotive supplies and services, and restaurant services. The Commission has entered into long term service plaza redevelopment agreements with HMSHost Restaurants, LLC and Sunoco, Inc.[5] to design, reconstruct, finance, operate and maintain all of the service plazas. The Commission has no responsibility for maintaining the service plazas under the agreements. Since the Commission entered into the agreements in 2005, all 17 rebuilt service plazas have opened. Cumulatively, HMSHost Restaurants, LLC and Sunoco, Inc. have invested approximately $190 million in service renovation projects, at no cost to the Commission. The Commission recognized capital contribution revenues of $5.8 million and $5.4 million, related to these agreements for the years ended May 31, 2019 and 2018, respectively, which is based on volume rental payments plus a percentage of revenue generated.

Additional Services

In addition to 751 field personnel in 23 facilities available to keep the roadway open and safe in the event of unfavorable road conditions, the Commission has a 24/7 Traffic Operations Center which monitors conditions on the System and provides emergency dispatch.

A Turnpike Roadway Information Program provides real-time data to drivers. Travelers are alerted to roadway conditions via Variable Message Signs, Highway Advisory Radio and alerts via e-mail and mobile phone.

In September 2011, Commission officials along with representatives from sponsor State Farm Insurance released a smartphone application known as "Trip-Talk" that enhances safety for those traveling the System. The free iPhone and Android application is an innovative method for travelers to keep up-to-date on current conditions on the roadway.

In December 2011, the Pennsylvania Department of Environmental Protection announced a $1 million grant award to help develop electric vehicle infrastructure on the System. The grant recipient, Car Charging Group Inc. (CCGI) was to install charging stations at 15 of the System's mainline service plazas (the Project). The Commission committed additional funding of up to

5 Pursuant to an Assignment and Assumption of Real Property Lease Agreement executed on January 23, 2018, Sunoco Retail LLC, as successor in interest to Sunoco, Inc. (R&M) ("Sunoco"), assigned its interest in the lease agreement by and between the Commission and Sunoco, as amended and supplemented, to 7-Eleven, Inc.

$500,000 to upgrade the electrical systems at the plazas to accommodate the charging stations. The first three phases of the work have been completed. Electric vehicle charging stations are currently installed and operational at the following service plazas: New Stanton, Oakmont, King of Prussia, Bowmansville and Peter J. Camiel. CCGI is unable to complete the Project. As a result, on April 19, 2017, DEP terminated the grant and revoked further funding under the grant. The Commission is in the process of attracting other vendors to complete the Project, at which time the Commission will terminate its agreement with CCGI.

In February 2013, the Commission announced that free Wi-Fi service is available at all operational service plazas. The amenity was added to accommodate Turnpike System customers who want to use smartphones, tablets, laptops or other portable devices to access the internet while traveling.

In September 2013, the Commonwealth Financing Authority announced a $500,000 grant to Sunoco, Inc., a portion of which was used to partially fund a compressed natural gas refueling station located at the New Stanton service plaza, the first natural gas refueling station on the System. Construction was completed and the refueling station opened in November 2014.

In October 2016, the Commission authorized the award of contracts to legal firms and financial consultants to assist in exploring a broadband network public-private partnership (P3) project, including the designing, building, financing, operating and maintenance of a fiber network for Commission data communications and the marketing and leasing of excess network capacity to private users along the System. The new system would replace an existing digital microwave network. The Commission shortlisted potential P3 teams and received three proposals. While the proposals demonstrated that the network could generate commercial revenue, none of the proposals were deemed to be financially advantageous to the Commission. As a result, the Commission announced in December 2018 that it was ending its pursuit of a P3 project and will pursue other options for its communication network. In place of the P3 project, the Commission elected to construct a fiber optic network in the areas of greatest need and will continue to utilize the existing microwave/ leased line network elsewhere. In summer of 2019, the Commission bid two design-build projects for the fiber optic network on the Mainline from the Harrisburg East interchange to the Delaware River Bridge (Contract 1), and for the entire length of the Northeast Extension (Contract 2). The Commission expects to issue notices to proceed in November and December 2020 for Contracts 1 and 2, respectively. Construction completion dates are currently estimated to be November 2021 for Contract 1 and December 2021 for Contract 2. It is anticipated that the fiber optic network will be operational in June 2022. Additionally, the Commission released a request for proposals for the operation, maintenance and commercialization of the fiber optic network in December 2019. Extension of the fiber optic network for the remainder of the turnpike west of Harrisburg is dependent upon future funding, which may include revenues from the commercialization of the eastern network constructed under Contracts 1 and 2.

E-ZPass Lanes

The Commission has installed E-ZPass, a form of electronic toll collection, throughout the System. Not only has E-ZPass enhanced safety and convenience for users of the System, but the technology has improved traffic flow and reduced congestion at the System's busiest interchanges, especially in southeastern Pennsylvania. The use of electronic tolling has enhanced the overall efficiency of the Commission's toll collections operations. Express E-ZPass lanes have been constructed at seven interchanges and permit E-ZPass customers to travel through the toll plaza at highway speeds. In addition, and as of September 1, 2018, E-ZPass customers traveling in 17 other states that have implemented E-ZPass technology are able to use E-ZPass in those states. Currently, E-ZPass is available on the entire System, including the western extensions. The Commission has not experienced any material problems in connection with the installation or operation of the E-ZPass system.

To help ensure, protect and preserve the collection of toll revenue due to the Commission, a violation enforcement system ("***VES***") has been installed at all interchanges where E-ZPass has been installed to identify violators (customers who travel through E-ZPass lanes and do not have E-ZPass) and motorists with problem tags that are unreadable. VES enables the Commission to collect appropriate tolls and other additional fees relating to violations. Legislation passed in 2000 included enforcement provisions for E-ZPass, including, among other things, certain evidentiary presumptions with respect to whether the registered vehicle owner was the operator of the vehicle, procedures for notifying the vehicle owner of the violation charged and the imposition upon the vehicle owner of civil penalties for violations. Act 89 included enhanced fare evasion measures and criminal penalties pertaining to E-ZPass violators. Under Act 89, motorists who commit or attempt to commit fare evasion on the System shall have committed a summary offense and upon conviction, shall be fined a sum between $100 and $1,000 in addition to civil penalties that are already in place. Further, motorists who take affirmative action to evade a System fare shall, upon conviction, have committed a misdemeanor of the third degree which will be punishable by fines ranging from $3,000 to $6,500 (depending on the number of offenses) and imprisonment of not more than six months for a second offense. Revenue generated from the additional fare evasion fines imposed by Act 89 is to be deposited in the Commonwealth's Motor License Fund rather than with the Commission; however, restitution for the full fare is due to the Commission. See "CERTAIN FINANCIAL INFORMATION - Performance Audit by the Auditor General" below for Auditor General findings with respect to enforcement powers of Commission. Subsequent to the Auditor General's Performance Audit, Act 165 was signed into law which, among other things, allows for the suspension of vehicle registration for unpaid tolls. In January 2018, the Commission began sending notices of possible vehicle registration suspensions under authority from Act 165 and in February 2018, PennDOT began suspending certain vehicle registrations. In April 2018 the Commission began filing criminal charges against some of the largest toll violators for theft of services. Such criminal charges are being brought in cooperation with local prosecutors and have resulted in various plea and settlement arrangements. See "THE COMMISSION - Recent Developments and Pending Legislation" above for additional information on Act 165.

The Commission's annual revenues from Electronic Toll Collection (ETC – which includes revenues from E-ZPass, VES and Toll by Plate) were approximately $1.1 billion for each of the fiscal years ended May 31, 2020 and May 31, 2019. The Commission's annual revenues from ticketed drivers (i.e., those not using ETC) decreased to $170.2 million during the Fiscal Year ended May 31, 2020 from $233.9 million during the Fiscal Year ended May 31, 2019. The Commission expects that ETC usage will continue to increase. The following table summarizes the Commission's ETC penetration rates among passenger, commercial and total users for Fiscal Years 2016-2020.

ETC Penetration Rates

Fiscal Year	Passenger	Commercial	Total
2016	75%	89%	77%
2017	78%	90%	79%
2018	81%	92%	83%
2019	84%	93%	86%
2020	88%	95%	89%

The Commission is a member of the E-ZPass Interagency Group ("***IAG***"), a coalition of toll authorities throughout the United States. IAG includes the following agencies: Buffalo and Fort Erie Public Bridge Authority (Peace Bridge); Burlington County Bridge Commission; Central Florida Expressway Authority; Delaware Department of Transportation; Delaware River and Bay Authority; Delaware River Joint Toll Bridge Commission; Delaware River Port Authority; Illinois State Toll Highway Authority; Indiana Toll Road Concession Company; Maine Turnpike Authority; Maryland Transportation Authority; Massachusetts Department of Transportation; Metropolitan Transportation Authority Bridges & Tunnels; New Hampshire Department of Transportation; New Jersey Turnpike Authority; New York State Bridge Authority; New York State Thruway Authority; North Carolina Turnpike Authority; Ohio Turnpike & Infrastructure Commission; Port Authority of New York and New Jersey; Rhode Island Turnpike and Bridge Authority; South Jersey Transportation Authority; Thousand Island Bridge Authority; Virginia Department of Transportation; West Virginia Parkway Authority; Skyway Concession Co. LLC; Niagara Falls Bridge Commission; Cline Avenue Bridge (Indiana) and Kentucky Public Transportation Infrastructure Authority. The Florida Department of Transportation and Georgia's State Road and Tollway Authority have announced their intent to join IAG. IAG's stated mission is "to enable E-ZPass members and affiliated toll operators to provide the public with a seamless, accurate, interoperable electronic method of paying tolls and fees while preserving and enhancing the E-ZPass program."

New highway construction projects, such as the Mon/Fayette Expressway and Southern Beltway, are being designed and built to be compatible with the E-ZPass system. The installation of the E-ZPass system has required the incorporation of innovative technologies into a single toll system that uses hardware and software adaptable to future technologies. The Commission has a contract, extending through 2024, with TransCore Company for the design, installation and maintenance of the E-ZPass system software and hardware and the operation of the E-ZPass Customer Service and Violations Processing Centers. The E-ZPass system implementation is a major component of the Commission's Fiscal Year 2021 Capital Plan. For a more complete description of the Commission's Fiscal Year 2021 Capital Plan, see "CAPITAL IMPROVEMENTS – Ten-Year Capital Plan" herein. Plans call for enhancements to E-ZPass lane signage and the design of additional Express E-ZPass lanes.

See "CERTAIN FINANCIAL INFORMATION – Toll Schedule and Rates" below for a discussion of the Commission's toll rates, including recent revisions for E-ZPass customers.

E-ZPass Plus

In November 2009, the Commission began offering E-ZPass customers who meet specific criteria the ability to participate in E-ZPass Plus. E-ZPass Plus allows E-ZPass customers to use their transponder to pay for parking fees at participating facilities displaying the E-ZPass Plus logo.

E-ZPass Only

The Commission has constructed six E-ZPass Only locations which are designed for the exclusive use of E-ZPass customers: Virginia Drive (located east of the Fort Washington interchange); Street Road (located west of the Bensalem interchange); Route 29 (located west of the Valley Forge Interchange); Route 903 in Carbon County; Exit 31-A E-ZPass Only northbound ramp at Lansdale (not a full interchange); and Exit 31-A E-ZPass Only southbound entrance ramp at Lansdale (not a full interchange) (the original toll booth/E-ZPass Lansdale interchange remains open to all traffic). The E-ZPass Only locations and other similarly planned locations are expected to reduce congestion at the System's busier interchanges and provide convenient access to industrial parks and job centers.

Cashless Tolling

Early in 2011, the Commission initiated a feasibility study to examine the benefits and potential issues associated with converting the toll road to a cashless system. The team of McCormick Taylor/CDM Smith (formerly Wilbur Smith Associates) was selected to conduct the study which included an overview of the existing toll collection system and an analysis of cashless systems throughout the United States, comparing the costs and benefits of various electronic tolling options. The feasibility report (the "***Feasibility Report***") was completed in March 2012, and at that time the Commission determined, based on the assumptions in the Feasibility Report, that conversion to a cashless system was technically feasible from both a financial and physical perspective. In July 2012, the Commission selected HNTB Corporation to act as its Program Manager to lead and direct the multi-disciplinary efforts required to manage and coordinate the design and implementation of a cashless system. The Conceptual Implementation Plan report, including a schedule for conversion, was issued in October 2014.

Following the enactment of Act 89, the Commission re-evaluated the schedule, which had contemplated full conversion to a cashless, non-stop system by 2018, and determined that a modified schedule for implementation would be necessary. Further consideration resulted in an approach whereby the existing toll lanes would be equipped with the necessary technology ("***AET In-Place***") to allow for cashless tolling to occur at the existing plaza locations. At present, the Commission has authorized the deployment of six segments of the cashless system consisting of the Delaware River Bridge, which went into operation in January 2016; the Beaver Valley Expressway, which went into operation in April 2017; Keyser Avenue/Clarks Summit, which went into operation in April 2018; the Findley Connector, which went into operation in June 2018, and the Amos K. Hutchinson Bypass and Gateway segments, which went into operation in October 2019. Cashless conversion of the remaining system utilizing an AET In-Place approach was scheduled for October 10, 2021. However, the adverse impacts of the COVID Pandemic necessitated that the Commission move to an AET In-Place approach on

March 16, 2020 and remove toll collectors from toll booths and eliminate the collection of cash across the System. Originally intended to be a temporary response to COVID, on June 2, 2020 the Commissioners unanimously approved a measure to lay off approximately 500 employees, primarily fare collection-related employees, effective June 18, 2020. The Commission will continue permanent AET In-Place operations. The Commission projects $50 million in savings in Fiscal Year 2021 as a result of the early conversion to permanent AET In-Place operations. The change in toll collection methods was necessitated by mandated changes (from the Pennsylvania Department of Health) in safe operating procedures for the Commission. Cashless tolling has been implemented, in part, by a new "TOLL BY PLATE" system. Non-E-ZPass customers are invoiced for assessed tolls. Ultimately, the Commission will be converting to Open Road Tolling (ORT) where cameras on overhead gantries capture a vehicle's license plate at highway speed, and a toll invoice is mailed to the vehicle's registered owner. Although existing toll booths would be removed from service at locations where TOLL BY PLATE is implemented, E-ZPass customers will still use transponders to pay tolls at such locations as overhead gantries are equipped to read E-ZPass transponders. Additional information regarding a cashless tolling system is available on the Commission's website at http://www.paturnpike.com/cashlesstolling/cashlesstolling.asp.[6]

CAPITAL IMPROVEMENTS

Act 61 Projects

In 1985, the General Assembly of the Commonwealth enacted Act 61. Act 61, among other things, authorized and empowered the Commission to undertake the construction of new projects and to operate them as part of the System. Although Act 44 repealed Act 61, it provides that all activities initiated under Act 61 shall continue and remain in full force and effect and may be completed under Act 44.

System Maintenance and Inspection

The Commission's engineering and maintenance staff performs maintenance on, and repairs to, the System. In addition, the Commission also uses staff and consultants to perform periodic inspections of the System. Pursuant to the terms of the Senior Revenue Indenture, the Commission must arrange for the System to be inspected at least once every three years by engaging one or more consultants to conduct inspections and prepare a report. The report must state (a) whether the System has been maintained in good repair, working order and condition since the last inspection report and (b) any recommendations which such consultants may have as to revisions or additions to the Commission's annual capital budget. The most recent inspection report, the Pennsylvania Turnpike Condition Assessment Report 2017 (submitted to the Commission in February 2018), was prepared by Michael Baker International (the "***Condition Assessment Report***"). The next Turnpike Condition Assessment Report is scheduled for completion during 2020 and the Commission anticipates receiving the report in either late 2020 or early 2021.

6 The information contained on such website link is not incorporated by reference in this Appendix A.

Based on reviews performed by others as well as their own observations, the authors of the Condition Assessment Report found that, "the overall condition of the System is good except for specific areas noted in the report."

The following summarizes certain information found in the Condition Assessment Report, including certain of the "specific areas" referred to in the preceding paragraph, and in inspection data gathered in 2017. Three of the four asset groups, including Roadway, Structures and Facilities are rated "Good" overall. The asset group Technology is rated "Fair" to "Good." Each of the asset groups is in working order based on the condition ratings of the individual assets within the asset group. The individual asset condition rating was developed through an extensive evaluation of available performance data that was both qualitative and quantitative. There were several different evaluation measures used across the array of Commission assets. The derivation of the individual asset rating is detailed in each section of the Condition Assessment Report. The following is an overall summary for each of the four asset groups.

Roadway

The recent roadway pavement inspection data indicate that the overall condition of the Commission pavement meets or exceeds established criteria with the area noted for skid resistance as the only exception. The supporting roadway features guiderail, attenuators, and median barrier are generally in Fair to Good condition. These assets require regular inspection and prompt repair when damaged for the safety of the Commission customers. Stormwater/Best Management Practices facilities are in Good condition and are being inspected in accordance with permitting requirements; however, a continued focus on regular maintenance or repair of these facilities is needed to keep them functioning as intended. The roadway drainage system seems to be in Fair condition based on the qualitative approach used to evaluate this asset. More detailed inspections would be needed to verify the condition of drainage facilities and to establish necessary maintenance activities beyond the routine annual maintenance that the Commission currently performs. Based on a recent visual inspection and a comparative analysis from the 2015 Rock Cut Evaluation, the rock cuts appear to be in Good condition. The overall condition of signs is Good and is being maintained adequately. Recent field evaluations of the Commission's highly reflective pavement markings and waterborne pavement markings at selected locations indicate that the Commission's pavement markings are in Good condition.

Structures

The Turnpike's bridges and culverts are in Good condition with about 4.2 percent noted as structurally deficient and 58 percent exceeding 50 years in age. Sign structures are in Good condition. Retaining walls/noise barriers are in Good condition overall, with only minor areas of concern and no loss of structural integrity. High mast light poles appear to be in Fair condition. High mast light poles are being removed with construction projects that impact them and will ultimately be phased out. Turnpike tunnels are generally in Fair condition with special attention to be given to structural elements (i.e., ceiling slabs, hanger rods) for corrective action, if needed.

In January 2019, PennDOT, through its P3 Office, invited interested teams to respond to a RFI to provide feedback information and materials for the Commission to consider the development of a bundled tunnel rehabilitation project. The purpose of the RFI is to gather feedback and information related to the development, design, construction, finance and maintenance of the Turnpike tunnels and tunnel systems. Upon review of the RFI proposals, the Commission has elected not to pursue development of a bundled tunnel rehabilitation project at this time. The rehabilitation of the Commission's tunnels will be completed with funding from the Fiscal Year 2021 Capital Plan.

In November 2019, PennDOT, through its P3 Office, invited interested teams to respond to an RFI from the Commission and the NJTA to provide feedback, information and materials for the deliberative decision-making of the Commission and NJTA regarding project development, financing and delivery options for the jointly owned Delaware River Bridge carrying I-95 over the Delaware River between Pennsylvania and New Jersey. See "THE COMMISSION- Recent Developments and Pending Legislation--*Status of Delaware River Bridge*" herein.

Facilities

Facility condition reports are shared with HMS/Host and Sunoco, who are contractually obligated to operate and maintain the service plazas, to assist with their maintenance responsibilities and capital plans reflecting maintenance needs. Annual facility condition assessments are completed by the Commission and shared with HMS/Host. HMS/Host takes corrective actions on deficiencies and informs the Commission when corrected. The Commission does monthly inspections to ensure deficiencies have been corrected. Issues raised regarding the service plaza conditions have been resolved by HMS/Host and there are no current issues regarding the conditions of the service plazas. The service plazas are rated as Good. Maintenance buildings are in Fair condition with a number of these buildings requiring rehabilitation. Projects are developed based on Condition Assessment reports with funds being allocated to the Fiscal Year 2021 Capital Plan to support these projects. The overall condition is Good for the following facilities types: Interchange buildings, Administration buildings, District Fare Collection buildings, and Stockpiles. The State Police Station facilities are rated Good. The two warehouse and training facilities that were assessed in conjunction with the Eastern Training Facility are rated in Fair to Good condition. Overall, the Communication Towers are rated as Fair. Since taking responsibility for inspection and maintenance of the communication towers in 2013, Facilities and Energy Management Operations has advanced a tower climbing and structural analysis review program to assess the condition of Communications Towers. Climbing inspections have been completed on 93% of the towers. Currently, eleven communication towers leased have been determined structurally overstressed and will exceed their design capacity per policy (the Pennsylvania Uniform Construction Code, or the Telecommunications Industry Association Standard). Structural reinforcement designs are completed or ongoing for five of the structurally deficient towers and will be performed for the remaining three towers as part of a System-wide communications update initiative.

Technology

Technology is comprised of Intelligent Transportation System ("***ITS***") devices, Access Gates and Cashless Tolling equipment. The overall condition is Fair to Good for the ITS devices that were evaluated. The Commission's Information Technology Department continually monitors the virtual network and provides support in troubleshooting issues as needed. The

Commission's ITS contractor maintains the ITS equipment through preventative and response maintenance plans. Access Gates are rated in Fair condition and are in the process of being upgraded to improve access capabilities. Cashless Tolling assets were recently deployed and are in Good condition.

Ten-Year Capital Plan

The Commission prepares a ten year capital plan for its facilities and equipment (exclusive of the Mon/Fayette and Southern Beltway projects), consisting of the Highway Program, the Technology Program, Fleet Equipment, and Facilities and Energy Management Operations, which it updates each year. All capital projects are reviewed and prioritized and the most critical and important projects necessary to maintain the System in a state of good repair are pursued. The Commission undertook a five-year program of enhanced capital spending, initiated in 2012, to address critical needs of the System such as structurally deficient bridges and total reconstruction projects on the Turnpike Mainline. As a result of the five years of enhanced capital spending, the Commission's percentage of structurally deficient bridges (by count) decreased from 8.1% to 3.8% and the Commission's International Roughness Index improved from 84 to 73 (lower is preferable). Also, the enhanced capital spending enabled the construction of the I-95 toll modifications and primary connections (north/east and west/south, also known as Sections D10 and D20) between I-95 and the Turnpike Mainline, which opened in September 2018.

On July 21, 2020, the Commission adopted its ten year capital plan for Fiscal Year 2021 (the "***Fiscal Year 2021 Capital Plan***"). The Fiscal Year 2021 Capital Plan reduces capital expenditures by approximately 25% during the next two fiscal years in response to the COVID Pandemic. The Fiscal Year 2021 Capital Plan calls for investment of approximately $5.808 billion, net of federal reimbursements, over the coming decade. The Fiscal Year 2021 Capital Plan enables the Commission to undertake a number of capital improvements and to pursue new initiatives to maintain and improve the System ensuring that it remains in a state of good repair. The Fiscal Year 2021 Capital Plan provides continued investment into the System, with an emphasis on the total reconstruction of the Turnpike Mainline and Northeast Extension, addressing structurally deficient bridges and the protection of the infrastructure assets of the Commission. The Fiscal Year 2021 Capital Plan, at approximately $5.808 billion, represents a relatively constant level of anticipated spending from the capital plans adopted each of the prior two years. While overall 10-year capital spending levels are relatively constant, it is important to note that the Fiscal Year 2021 Capital Plan does reduce capital spending by 25% in Fiscal Year 2021 and Fiscal Year 2022 from the prior capital plan. The Fiscal Year 2021 Capital Plan represents continued investment in critical capital projects and therefore aids in the protection of Commission assets. The Fiscal Year 2021 Capital Plan represents a continuation by the Commission of its historic levels of capital investment and will require the issuance of additional debt throughout the ten-year period. The Commission believes that the capital spending and additional debt issuance, along with the continuing burden of Act 44 obligations to PennDOT, will require the imposition of annual toll increases throughout the ten-year period and beyond. The Traffic Study prepared by CDM Smith (formerly Wilbur Smith Associates) contemplates toll increases of 3.0% to 6.0% in each year.

Exhibit I attached to this Appendix A indicates budget allocations by program for the Fiscal Year 2021 Capital Plan.

The Highway Program consists of roadway, bridge, tunnel and toll plaza/interchange projects. The Technology Program consists of toll collection, communication, and other electronic information management projects. The Fleet Program funds rolling stock that is required to maintain the System. The Facilities and Energy Management Program consists of buildings and large, heavy or high value equipment needs.

The highest priority highway project for the Commission is the ongoing full depth roadway total reconstruction of the east/west Turnpike Mainline and Northeast Extension. This work includes the reconstruction and widening of the roadway, the widening of the median, and the replacement of both Mainline and overhead bridges. To date, approximately 145 miles of total reconstruction have been completed and approximately 7 miles are currently in construction with another 82 miles either in the planning or design phase. Total reconstruction project from Milepost A-31 to A-38 and MP A31-A38 are in construction.

Based on the Fiscal Year 2021 Capital Plan, the Commission plans to spend approximately $2.19 billion on total reconstruction projects and approximately $0.7 billion on various bridge and tunnel projects over the next ten years. In total, the Highway Program includes funding of approximately $4.690 billion over the next ten years.

The Technology Program includes funding of approximately $165 million over the next ten years to address the Commission's technology needs including toll collection projects, communication, application development and technical operational needs. The Commission has implemented SAP ERP to provide a set of integrated business processes supported by multi-module application software with a centralized data repository.

The Fleet Program includes funding of approximately $175 million to purchase rolling stock to insure adequate maintenance of the roadway system.

The Facilities and Energy Management Program includes funding of approximately $387 million to repair and replace the aging facilities of the Commission. This commitment will ensure that major equipment and facilities are in good repair to support ongoing Turnpike System operations.

While the Commission has moved to a fully cashless tolling system as of March 16, 2020, additional capital investments are required to support an "AET In-Place" system and eventual conversion to an Open Road Tolling system. The implementation of and long-term conversion to a cashless tolling system is estimated to require approximately $431 million in capital funding over the next ten years. At present, as described above, the Commission has implemented cashless tolling at four locations. See "THE TURNPIKE SYSTEM – Cashless Tolling" herein for additional information.

Mon/Fayette Expressway and Southern Beltway

Four projects constructed as part of the Mon/Fayette Expressway are now in operation. One is an approximately six-mile toll road between Interstate Route 70 and U.S. Route 40 in

Washington County. This project was built by PennDOT and turned over to the Commission upon its opening in 1990. The second is an approximately twelve-mile section of toll road from I-68 near Morgantown, West Virginia, to Fairchance, Pennsylvania, which is located just south of Uniontown. The third project is an approximately sixteen-mile section of the Mon/Fayette Expressway from Interstate Route 70 in Washington County to Pennsylvania Route 51 in Allegheny County, which opened in April 2002. The fourth is an approximately fifteen-mile section from Uniontown to Brownsville, including a 3,022-foot bridge over the Monongahela River, which opened to traffic in July 2012. These four contiguous projects, which total 48 miles from Morgantown, West Virginia to PA Route 51 south of Pittsburgh, are now part of the System. On March 21, 2017, the Commission announced that it would stop engineering-design activities on the final 14-mile section of the Mon/Fayette Expressway, extending from PA Route 51 to Interstate Route 376 near Monroeville east of Pittsburgh, in light of the Southwestern Pennsylvania Commission's decision to table the project. On June 26, 2017, the Southwestern Pennsylvania Commission voted to add the final 14-mile segment of the Mon/Fayette Expressway to its long-range plan. This action will allow the Federal Highway Administration to approve changes to the environmental impact statement, a requirement for construction to commence. The current estimates to complete the final 14 miles of the Mon/Fayette Expressway to Interstate Route 376 are in excess of $2 billion. An EIS re-evaluation has been completed for the Mon/Fayette Expressway and approved by PennDOT and FHWA. Final design is proceeding on the southern sections of the Mon/Fayette Expressway. Public plans displays for these southern sections were held the first week of April 2018.

When eventually completed, the Mon/Fayette Expressway would extend from Interstate 68 in West Virginia to Interstate Route 376 in Monroeville, which is east of Pittsburgh.

The proposed Southern Beltway is to be constructed from the Mon/Fayette Expressway, near Finleyville, extending as part of a beltway south of Pittsburgh to Interstate 376 at the Pittsburgh International Airport. It is comprised of three distinct projects. The six-mile project from I-376 to U.S. 22 (also known as the Findlay Connector) opened to traffic in October 2006. The project from U.S. 22 to I-79, received environmental clearance for its 13 miles in September 2008 and is under construction with an estimated total project budget of $1.013 billion. Sections 55A1, 55C1-1, 55C1-2 and Section 55B have been completed. Sections 55A2 and 55C-2 are currently in construction. When completed in late 2021, the U.S. 22 to I-79 portion of the Southern Beltway will be a cashless tolling facility. The remaining Southern Beltway project, from I-79 to the Mon/Fayette Expressway, received environmental clearance in May 2009. The final portion of the Southern Beltway is currently estimated to cost approximately $788 million.

The proceeds of the Commission's Oil Franchise Tax Revenue Bonds, Series A and B of 1998, Oil Franchise Tax Revenue Bonds, Series A, B and C of 2003, and Oil Franchise Tax Revenue Bonds, Series A-1, B, C, D-2 and E of 2009, and Registration Fee Revenue Bonds, Series of 2001, along with then currently available revenues, were applied to fund the construction of the Mon/Fayette and Southern Beltway projects that have been completed to date. It is anticipated that the remaining costs to complete the Mon/Fayette Expressway and the Southern Beltway will be financed with Oil Franchise Tax Revenues (as defined herein), proceeds of the Oil Franchise Tax Revenue Bonds, Series A of 2018 and the Oil Franchise Tax Revenue Bonds, Series B of 2018, along with other funding sources. Although the open sections of the Mon/Fayette Expressway and the Southern Beltway are toll roads, the Tolls (as defined herein) pledged for the repayment of Turnpike Revenue Bonds will not be applied to the financing of their construction, which will be funded by Oil Franchise Tax Revenues.

The Commission has no legal obligation to complete the unfinished portions of the Mon/Fayette Expressway and Southern Beltway projects at this time. However, Act 89 has generated $141.6 million in annual Oil Franchise Tax Revenues for the Commission as of Fiscal Year 2018-2019.

I-95 Interchange

I-95 was completed in 1969 without an interchange connecting it to the Turnpike Mainline. Interstate travelers were required to either by-pass the Philadelphia area entirely or exit the interstate system and navigate a complex system of local roadways to access I-95 again in New Jersey.

The Commission completed the first of three phases of its Pennsylvania Turnpike/I-95 Interchange Project (the "***Interchange Project***") in September 2018. The main objectives of the Interchange Project are to improve the linkage between I-95 and the Turnpike Mainline to create continuity in the interstate system, relieve congestion on local roads which are currently used by travelers to make the connection between I-95 and the Turnpike Mainline, create additional capacity on the Turnpike Mainline and I-95 to accommodate the transfer of traffic from the local roadway system, and improve travel times through the interchange area.

The first phase of the Interchange Project included preparatory work and construction of a portion of the interchange between I-95 and the Turnpike Mainline, including northbound I-95 to the eastbound Turnpike Mainline and westbound Turnpike Mainline to southbound I-95 and is currently under construction. This phase included construction of a new Turnpike Mainline toll plaza and a cashless tolling plaza westbound, which opened in January 2016. The first phase of the Interchange Project was completed and opened to traffic in September 2018. The portion of the Turnpike Mainline from the Interchange Project eastward to the Delaware River Bridge in Bucks County has been redesignated as Interstate 95. The second phase of the Interchange Project will include the completion of the reconstruction and widening of the remaining interchange connectors. The third phase will be the construction of a new wider bridge over the Delaware River, replacing the existing bridge. Funding for construction of the first phase is included in the Fiscal Year 2021 Capital Plan. Funding for the second and third phases is not included in the Fiscal Year 2021 Capital Plan.

CERTAIN FINANCIAL INFORMATION

Revenue Sources of the Commission

The Commission's revenues are principally derived from three separate sources: toll revenues from the operation of the System, revenue derived from a portion of the Commonwealth's Oil Franchise Tax, and revenue derived from a portion of the Commonwealth's vehicle registration fee revenues.

Toll Revenues

The largest part of the Commission's revenues is derived from the collection of all rates, rents, fees, charges, fines and other income derived by the Commission from the vehicular usage of the System and all rights to receive the same (the "***Tolls***"). The Tolls are presently pledged to secure the Commission's Turnpike Revenue Bonds (which includes the 2020B Bonds, other Senior Revenue Indenture Parity Obligations, as well as any subordinated indebtedness that may be issued under the Senior Revenue Indenture (collectively, the "***Senior Revenue Indenture Obligations***"). As of the date of this Official Statement, $5,844,595,000 in aggregate principal amount of Turnpike Revenue Bonds are outstanding under the Senior Revenue Indenture. See "CERTAIN FINANCIAL INFORMATION – Future Financing Considerations" herein.

The foregoing amount includes certain notes evidencing and securing $383,500,000 in loans through the Immigrant Investor Program (known as the EB-5 visa program) administered by the U.S. Citizenship and Immigration Services, the proceeds of which are being used to fund a portion of the I-95 Interchange Project and projects identified in the Commission's 2016-2017 Ten-Year Capital Plan (the "***EB-5 Loans***"). The EB-5 Loans have been issued in eight tranches (3 tranches on March 18, 2016, a fourth tranche on May 11, 2016, a fifth tranche on February 21, 2018, a sixth tranche on November 13, 2018, a seventh tranche on November 6, 2019, and an eighth tranche on January 22, 2020). Each tranche has a five-year term. At the end of each five-year term, the Commission will evaluate market conditions to determine whether to refinance the loans into either long term, privately placed or publicly offered Turnpike Revenue Bonds, based on numerous factors including the lowest available interest rates.

For additional information on the EB-5 Loans, see:

https://emma.msrb.org/ES1058248-ES826410-ES1227554.pdf[7],
https://emma.msrb.org/ES1058220-ES826391-ES1227532.pdf[8],
https://emma.msrb.org/ER1284410.pdf[9],
https://emma.msrb.org/ER1177947-ER920807-ER1321434.pdf[10]and
https://emma.msrb.org/ER1268837-ER990643-ER1393176.pdf.[11]

Also included in the principal amount outstanding under the Senior Revenue Indenture as of the date of this Official Statement is $939,790,000 aggregate principal amount of variable rate obligations. See "CERTAIN FINANCIAL INFORMATION – Direct Purchase Obligations" for a summary of direct purchase obligations of the Commission. Other obligations incurred and outstanding under the Senior Revenue Indenture include the Commission's obligations under various interest rate swap agreements having a total current notional amount of $786,150,000. The Tolls are not pledged to secure the Oil Franchise Tax Revenue Bonds (as defined below), the Registration Fee Revenue Bonds (as defined below) or the bonds and other obligations issued (or otherwise secured) under the Subordinate Revenue Indenture (the "***Subordinate Revenue***

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7 The information contained on such website link is not incorporated by reference in this Appendix A.
8 The information contained on such website link is not incorporated by reference in this Appendix A.
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11 The information contained on such website link is not incorporated by reference in this Appendix A.

Indenture Obligations”). All Subordinate Revenue Indenture Obligations are subordinated to the payment of the Senior Revenue Indenture Obligations issued under the Senior Revenue Indenture. See “THE COMMISSION – Enabling Acts - *Issuance of Bonds; Commission Payments*” herein.

Neither the Subordinate Revenue Indenture Obligations, the Oil Franchise Tax Revenue Bonds, nor the Registration Fee Revenue Bonds are secured by or have any interest in the trust estate established pursuant to the Senior Revenue Indenture.

The Commission may in the future, under the terms of the Senior Revenue Indenture, identify in writing certain roads, other than the Turnpike Mainline and the Northeast Extension, as not being part of the System for the purposes of the Senior Revenue Indenture which would eliminate toll revenues from these portions from the definition of Tolls under the Senior Revenue Indenture. The Commission currently has no plans to remove any roads from the System. In addition, under the Senior Revenue Indenture, the Commission has covenanted that it will not sell, lease or otherwise dispose of real estate or personal property comprising a portion of the System except upon compliance with the provisions of the Senior Revenue Indenture, including a determination by resolution that the Net Revenues of the Commission will not be materially adversely affected. The Commission from time to time may consider various proposals that could involve the transfer or other disposition of Commission property. Any such transfer or disposition would be required to comply with the provisions of the Senior Revenue Indenture.

Oil Franchise Tax Revenues

The Commission’s second principal stream of revenues consists of that portion of the Commonwealth’s oil company franchise tax revenues (the “***Oil Franchise Tax Revenues***”) allocated by statute to the Commission and pledged to the holders of bonds (also referred to herein as the “***Oil Franchise Tax Revenue Bonds***”) as part of the Trust Estate securing those bonds. As of the date of the Official Statement, the Commission has $1,038,448,217.05 aggregate principal amount of Oil Franchise Tax Revenue Bonds outstanding under the Indenture (including compounded amounts as of June 1, 2020). The Oil Franchise Tax Revenue Bonds are secured solely by the Trust Estate securing those bonds which includes, among other things, such Commission allocations. **The Oil Franchise Tax Revenues are not pledged to secure any Senior Revenue Indenture Obligations, any Subordinate Revenue Indenture Obligations or any Registration Fee Revenue Bonds.** Note, however, that funds in the Oil Franchise Tax General Fund may be used by the Commission for any purposes as authorized by the Enabling Acts.

Registration Fee Revenues

The Commission’s third principal stream of revenues consists of that portion of the Commonwealth’s vehicle registration fee revenues (the “***Registration Fee Revenues***”) allocated by statute to the Commission or the holders of any of the Commission’s Registration Fee Revenue Bonds (the “***Registration Fee Revenue Bonds***”), of which $359,825,000 aggregate principal amount is outstanding as of the date of this Official Statement, which includes a direct purchase obligation in the aggregate principal amount of $231,425,000. See “CERTAIN FINANCIAL INFORMATION – Direct Purchase Obligations” herein for a summary of direct purchase obligations of the Commission. The Registration Fee Revenue Bonds, the proceeds of which were spent on portions of the Mon/Fayette Expressway and the Southern Beltway, are secured by Registration Fee Revenues. Registration Fee Revenue Bonds are to be paid solely from the Registration Fee Revenues. **The Registration Fee Revenues are not pledged to secure any Senior Revenue Indenture Obligations, Subordinate Revenue Indenture Obligations or the Oil Franchise Tax Revenue Bonds.**

Direct Purchase Obligations

Below is a summary of direct purchase obligations of the Commission outstanding as of the date of this Official Statement. These transactions may include terms and provisions, including but not limited to covenants and events of default, that are different from those contained in the Senior Revenue Indenture, Subordinate Revenue Indenture, and/or the Registration Fee Indenture. Copies of certain agreements relating to these transactions have been filed on, and may be viewed on, the Municipal Securities Rulemaking Board - Electronic Municipal Market Access (EMMA) website as referenced below.

EB-5 Loans (Senior)

A $200 million draw-down loan authorized under the Immigrant Investor Program (known as the EB-5 visa program) administered by the U.S. Citizenship and Immigration Services is a parity obligation with Turnpike Revenue Bonds and other parity obligations issued under the Senior Revenue Indenture. The entire $200 million has been drawn.

An up to $800 million draw-down loan is authorized through the EB-5 visa program. $183.5 million has been drawn to date, leaving $616.5 million currently not drawn. Such loans are and, when advanced, will be parity obligations with Turnpike Revenue Bonds and other parity obligations issued under the Senior Revenue Indenture.

Additional information regarding the forgoing loans can be found at:

https://emma.msrb.org/ES1058248-ES826410-ES1227554.pdf[12]
https://emma.msrb.org/ES1058220-ES826391-ES1227532.pdf[13]
https://emma.msrb.org/ES1058229-ES826390-ES1227529.pdf[14]
https://emma.msrb.org/ER1284410.pdf[15]
https://emma.msrb.org/ER1177947-ER920807-ER1321434.pdf[16]
https://emma.msrb.org/ER1268837-ER990643-ER1393176.pdf[17]

See also "CERTAIN FINANCIAL INFORMATION – Revenue Sources of the Commission – Toll Revenues" and "CERTAIN FINANCIAL INFORMATION – Revenue Sources of the Commission – Future Financing Considerations" herein.

12 The information contained on such website link is not incorporated by reference in this Appendix A.
13 The information contained on such website link is not incorporated by reference in this Appendix A.
14 The information contained on such website link is not incorporated by reference in this Appendix A.
15 The information contained on such website link is not incorporated by reference in this Appendix A.
16 The information contained on such website link is not incorporated by reference in this Appendix A.
17 The information contained on such website link is not incorporated by reference in this Appendix A.

First Series of 2017 Bonds (Subordinate)

Turnpike Subordinate Revenue Refunding Bonds, First Series of 2017 (the "***First Series of 2017 Bonds***"), of which $291,850,000 aggregate principal amount is outstanding as of the date of this Official Statement, were issued under the Subordinate Revenue Indenture and are parity obligations with certain Subordinate Revenue Bonds and other parity obligations issued under the Subordinate Revenue Indenture. Additional information regarding the First Series of 2017 Bonds can be found at: https://emma.msrb.org/ES1055711-ER826006-ES1225682.pdf.[18]

2005 Registration Fee Bonds (Registration Fee)

Registration Fee Revenue Bonds, Series B, C, and D of 2005 (the "***2005 Registration Fee Bonds***"), outstanding in the aggregate principal amount of $231,425,000 as of the date of this Official Statement, were converted to a direct purchase transaction in October 2015. The 2005 Registration Fee Bonds were issued under a separate indenture, as subsequently amended and supplemented, securing Registration Fee Revenue Bonds and are parity obligations with Registration Fee Revenue Bonds and any other parity obligations issued under such indenture. In July 2018, necessary amendments were made to the bond documents to allow for the modification of the interest rate. In February 2019, additional modifications were made to the bond documents to allow for the modification of the interest rate. In March 2019, the Commission cash defeased a portion of the 2005 Registration Fee Bonds. Additional information regarding the 2005 Registration Fee Bonds can be found at: https://emma.msrb.org/EP1026791-EP795538-EP1197062.pdf[19], at https://emma.msrb.org/ES1188445-ES928832-ES1329795.pdf[20] and at https://emma.msrb.org/MarketActivity/ContinuingDisclosureDetails/ES965483[21].

2020 PNC Line of Credit

On June 2, 2020, in order to assure liquidity throughout the COVID Pandemic mitigation efforts, the Commission obtained a one year $200 million line of credit (the "***Line of Credit***") for operating expenses from PNC Bank, National Association. The Line of Credit is a Parity Obligation under the Senior Revenue Indenture. To date, the Commission has not drawn any funding under the Line of Credit.

Letter of Credit Agreements

The Commission has entered into letter of credit agreements related to certain of its Turnpike Revenue Bonds as detailed in the table below. The letter of credit agreements may contain provisions that are different from, and may be more restrictive than, the Senior Revenue Indenture.

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18 The information contained on such website link is not incorporated by reference in this Appendix A.
19 The information contained on such website link is not incorporated by reference in this Appendix A.
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Summary of Letter of Credit Agreements for
Turnpike Revenue Bonds of August 31, 2020

Variable Rate Bond Issue	Amount Outstanding	Provider	Expiration Date
Second Series of 2019	$139,815,000	TD Bank, N.A.	6/4/2024
Series of 2020	225,820,000	TD Bank, N.A.	12/1/2025
Series A of 2020	100,500,000	Barclays Bank PLC	12/1/2023

Toll Schedule and Rates

The current System generally employs a closed or ticket system method for toll collection. Tolls are determined on the basis of the length of the trip and vehicle class. There are nine vehicle classes determined either by axles or, in the case of commercial vehicles, by axles and weight. Historically, all drivers were issued a ticket upon entering the System and were required to surrender the ticket and pay the appropriate toll upon exiting. Electronic toll collection methods, however, have been implemented throughout the System. See "THE TURNPIKE SYSTEM – E-ZPass Lanes" herein.

The Turnpike is the only remaining road in the United States that still establishes tolls based on vehicle weight. As part of its efforts to continue to modernize its operations, the Commission is using an upgraded vehicle classification system at two tolling locations. In Spring 2018, the Commission began utilizing an "axle/height" system that calculates tolls based on the vehicle's height plus the number of axles. It is being utilized in eastern Pennsylvania at the Clarks Summit and Keyser Avenue tolling points on the Northeastern Extension and also in western Pennsylvania on the Findlay Connector. The axle/height classification system will be phased in over time as it is expected to be the most accurate, predictable and efficient system for customers. It is also expected to be less expensive for the Commission to maintain and will be consistent with systems currently being operated in neighboring states.

Between 1957 and 2008, the Commission implemented only five revisions in its toll schedule, effective on September 1, 1969, August 1, 1978, January 2, 1987, June 1, 1991 and August 1, 2004. On August 1, 2004, Turnpike System tolls increased by 1.8 cents per mile for passenger vehicles from 4.1 to 5.9 cents per mile. Commercial vehicles had an average increase of 5.3 cents per mile. Such toll increase was consistent with the rate of inflation over the 13 years since the Commission's prior toll increase in 1991. During such time, all incremental revenue generated by such toll increase was used to fund capital improvements to the System's roads, tunnels and other upgrades.

Since 2008, the Commission has implemented rate increases as follows:

- On July 22, 2008, the Commission approved a toll increase in the amount of 25% (except for the Southern Beltway and the Mon/Fayette Expressway) which became effective on January 4, 2009, with the expectation that it would implement annual increases thereafter.

- On August 18, 2009, the Commission approved a toll increase in the amount of 3% (except for the Southern Beltway) which became effective on January 3, 2010.

- On July 13, 2010, the Commission adopted several revenue enhancement measures that took effect on January 2, 2011. For E-ZPass users, tolls increased by 3%. For cash customers, tolls increased by 10% (rounded to the nearest $0.05). (Tolls on the Southern Beltway were not increased.) Annual fees for use of E-ZPass transponders increased from $3 per transponder to $6 per transponder. Finally, the commercial discount program, which provided for tiered discounts of 10%, 15% and 20% off published toll rates depending on total monthly fares, was adjusted to provide tiered discounts of 5%, 10% and 15%. These revenue enhancements were used to provide funds for payments under the Amended Funding Agreement and other Act 44 purposes, including funding of the Commission's capital expenditure program and normal operating expenditures.

- On July 19, 2011, the Commission approved a toll increase (except on the Southern Beltway) which took effect on January 2, 2012. E-ZPass users did not see a toll increase, and cash customers saw an increase of 10%. In addition, commercial discounts were reduced. The 15% volume discount was eliminated and the remaining discounts were set at a 5% discount for $5,000-$10,000 in monthly tolls and a 10% discount for more than $10,000 in monthly tolls. In addition, the Commission also approved approximate overall toll rate increases that among E-ZPass users and cash customers would average 3% annually for each of the 2013 and 2014 calendar years.

- At meetings on July 18, 2012 and September 4, 2012, the Commission approved toll increases which became effective on January 6, 2013. Tolls for cash customers generally increased by 10%, except for the Southern Beltway, and tolls for E-ZPass users increased by 2%. On the Southern Beltway, cash tolls for all classes (which had never increased since its opening in 2006) increased by 50%, and E-ZPass rates increased by 25%. Annual fees for non-commercial use of E-ZPass transponders decreased from $6 per transponder to $3 per transponder due to lower cost from the supplier. Finally, the commercial discount program was further adjusted. The 10% discount was eliminated and the minimum toll amount for discount eligibility increased from $5,000 to $10,000. The revised discount program provided for a 5% discount on total monthly fares of $10,000 or more.

- At its meeting on July 16, 2013, the Commission clarified its previously approved toll increase which was to occur in January 2014. The Commission approved a differential to the toll increases which became effective on January 5, 2014. Tolls (except on the Southern Beltway) increased by 12% for cash customers and by 2% for E-ZPass users. The toll increase differential kept the overall toll revenue increase to approximately 3%, in keeping with previous approvals of the Commission. Additionally, the remaining commercial discount program (5%

volume discount on total monthly fares of $10,000 or more) was approved for elimination, effective January 5, 2014.

- At its meeting on September 20, 2013, the Commission partially reinstated the commercial discount to provide a three percent (3%) discount to Turnpike System commercial E-ZPass account holders that expend $20,000 or more in tolls per month on the Turnpike System.

- On June 17, 2014, the Commission approved a toll increase (except for the Southern Beltway) in the amount of 5% for both cash and E-ZPass users effective January 4, 2015.

- On July 7, 2015, the Commission approved a toll increase in the amount of 6% for both cash and E-ZPass users effective January 3, 2016.

- On July 19, 2016, the Commission approved a toll increase in the amount of 6% for both cash and E-ZPass users effective January 2017.

- On July 18, 2017, the Commission approved a toll increase in the amount of 6% for both cash and E-ZPass users effective January 2018 which applied to all portions of the Turnpike System, except as follows: (i) no toll increase for Delaware River Bridge E-ZPass and Toll-By-Plate customers, (ii) Clarks Summit & Keyser Avenue toll rates increased in April 2018 with the conversion of these locations to Cashless Tolling, and (iii) Findlay Connector toll rates were set at the time of conversion to Cashless Tolling in June 2018 and adjusted accordingly with the annual 6% toll increase as follows: (x) E-ZPass - $1.00 and (y) Toll-By-Plate - $1.50.

- On July 3, 2018, the Commission approved a toll increase in the amount of 6% for both cash and E-ZPass users which became effective January 2019.

- On July 16, 2019, the Commission approved a toll increase in the amount of 6% for both cash and E-ZPass users which became effective January 2020 and applies to all portions of the Turnpike System, except as follows: (i) Amos K. Hutchinson, Gateway and Beaver Valley Expressway. At these locations, new toll rates, which included a 6 percent toll increase and an increase to reflect associate invoice-processing and collection costs for “cashless” tolling facilities, became effective on October 27, 2019.

- On July 21, 2020, the Commission approved a toll increase in the amount of 6% for both Toll By Plate and E-ZPass users which will become effective January 2021. Additionally, a 45% increase for Toll By Plate transactions on the ticket system and the Mon-Fayette Expressway will also become effective in January 2021.

- The full System toll schedules for the Turnpike Mainline and various extensions can be viewed at https://www.paturnpike.com/pdfs/tolls/tolls_2019/2019_Tolls.pdf.[22]

Subject to the detailed description above, here is a chart summarizing the fundamental rate increases since 2009:

Toll Increase History Since 2009		
Effective	Percent Increase	
Date	Cash	E-ZPass
1/4/2009	25%	25%
1/3/2010	3%	3%
1/2/2011	10%	3%
1/2/2012	10%	0%
1/6/2013	10%	2%
1/5/2014	12%	2%
1/5/2015	5%	5%
1/3/2016	6%	6%
1/8/2017	6%	6%
1/2/2018	6%	6%
1/7/2019	6%	6%
1/5/2020	6%	6%

Traffic and revenue data for the Fiscal Year ended May 31, 2020 indicate a 3.5% decrease in net fare revenue, with a 11.3% decrease in traffic volume, as compared to data for the Fiscal Year ended May 31, 2019, which decreases in traffic and revenue are attributable to mitigation efforts related to the COVID Pandemic. Traffic and revenue data for the three month period ending August 31, 2020 indicate a 19.6% decrease in net fare revenue, with a 24.2% decrease in traffic volume, as compared to data for the three month period ending August 31, 2019.

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22 The information contained on such website link is not incorporated by reference in this Appendix.

The following Table I illustrates the tolls and per mile rates applicable to each vehicle class for a trip on the Turnpike Mainline from Interchange 1 through Interchange 353 following the toll increase effective January 5, 2020:

TABLE I
Current Tolls and Per Mile Rates for Mainline
Roadway East - West Complete Trip
Neshaminy Falls - Warrendale (Ticket System)

Vehicle Toll Class	Gross Vehicle Weight (Thousand Pound)	Toll Rate Cash Effective 1/2020	Per Mile Cash Rate	Toll Rate E-ZPass Effective 1/2020	Per Mile E-ZPass Rate
1	1-7	53.50	0.165	38.40	0.119
2	7-15	78.60	0.243	56.30	0.174
3	15-19	94.90	0.293	67.90	0.210
4	19-30	113.80	0.352	81.60	0.252
5	30-45	159.50	0.493	114.50	0.354
6	45-62	200.00	0.619	143.60	0.444
7	62-80	286.20	0.886	205.60	0.636
8	80-100	375.20	1.161	269.60	0.834
9	Over 100	2,063.40	6.388	2,063.40	4.592

Notes:
The above rates represent an "East West" trip for the ticket toll system between the Neshaminy Falls (#353) interchange and Warrendale (#30). For purposes of the Senior Revenue Indenture, the Mainline is the entire length of the roadway between Ohio and the Delaware River Bridge.

The 30-mile Gateway to Warrendale roadway between Warrendale and the Ohio Turnpike has a barrier toll at the Gateway Mainline interchange (#2). The toll on the Gateway connection is payable only when traveling eastbound.

The toll on the Delaware River Bridge to Neshaminy Falls portion is a one-way toll westbound only, and is collected by a new "toll-by-plate" system or by E-ZPass.

Additional toll rate information can be found at https://www.paturnpike.com/toll/tollmileage.aspx.

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Act 44 requires the Commission to fix toll rates such that revenues from tolls and other sources to the Commission are sufficient to pay the cost of the System's operation, construction, expansion and maintenance, all Commission obligations and interest thereon, sinking fund requirements of the Commission, other requirements in any trust indentures, notes or resolutions, and payments to PennDOT under the Amended Funding Agreement.

Five-Year Financial History

The following Table II summarizes certain operating and revenue information with respect to the System for the Fiscal Years from 2016 to 2020. The following Table III summarizes certain financial information with respect to the System for the Fiscal Years from 2016 to 2020. This information is derived from the Commission's regularly prepared books and records. The financial information presented in Table III is a combination of cash basis financial statements with certain accruals included. **Certain of this information is not presented in accordance with generally accepted accounting principles and has not been audited.**

Tables II and III should be read in conjunction with the financial statements prepared in accordance with generally accepted accounting principles and related notes included in "APPENDIX B – AUDITED 2019 AND 2018 FINANCIAL STATEMENTS" of this Official Statement (the "***Financial Statements***").

The Commission currently makes certain operating and financial information, including its audited annual financial statements and information corresponding to the information set forth below in Tables II and III, available through the Municipal Securities Rulemaking Board - Electronic Municipal Market Access (http://www.emma.msrb.org)[23] pursuant to its undertakings in accordance with Rule 15c2-12 promulgated under the Securities Exchange Act of 1934, as amended. Information to be provided pursuant to the Commission's undertaking in connection with the bonds offered pursuant to this Official Statement is described in the forepart of this Official Statement under the caption "CONTINUING DISCLOSURE."

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23 The information contained on such website link is not incorporated by reference in this Appendix A.

TABLE II

Number of Vehicle Transactions and Fare Revenues – Summarized by Fare Classification
(U.S. Dollars in thousands)

	Fiscal Year Ended May 31					Three Months Ended August 31,**	
	2016 ^	**2017 ^**	**2018 ^**	**2019**	**2020**	**FY 2020**	**FY 2021**
Number of Vehicles Transactions:*							
Passenger	177,317	179,190	180,167	183,030	159,649	49,576	35,731
Commercial	28,591	29,064	30,177	31,582	30,803	8,534	8,304
Total	205,908	208,254	210,344	214,612	190,452	58,110	44,035
Fare Revenue:							
Passenger	$588,295	$638,787	$678,720	$740,205	$683,511	224,961	153,756
Commercial	443,325	476,189	524,438	595,180	606,050	162,408	158,461
Total	$1,031,620	$1,114,976	$1,203,158	$1,335,385	$1,289,561	$387,369	$312,217
Discount	-1,505	-3,915	-6,552	-8,354	-9,821	-2,407	-2,820
Net Fare Revenues	$1,030,115	$1,111,061	$1,196,606	$1,327,031	$1,279,740	$384,962	$309,397

* Number of vehicles is unaudited.

** Unaudited

^ Restated Traffic Volumes for both revenue and non-revenue transactions. Prior to this fiscal year, the Commission only reported traffic volume classified as revenue transactions.

Note - The Fiscal Year 2020 Transaction and Revenue numbers have been adversely impacted by the COVID Pandemic. Prior to the COVID Pandemic, the Commission anticipated that Fiscal Year 2020 Transaction and Revenue numbers would increase from Fiscal Year 2019 levels.

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TABLE III
Summary of System Revenues and Operating Expenditures
Before Interest and Other Charges (1)
(000's Omitted)

	Fiscal Year Ended May 31,				
	2016	**2017**	**2018◊**	**2019**	**2020**
Revenues					
Net Fare Revenues	$1,030,115	$1,111,061	$1,196,606	$1,327,031	$1,279,740
Concession Revenues	3,932	4,100	3,911	4,737	4,426
Senior Interest Income	9,511	11,664	13,808	17,155	20,605
Subordinate Interest Income	3,975	4,314	4,948	5,638	6,758
MLF Enhanced Interest Income	190	248	530	526	638
Miscellaneous	18,644	19,235	757	4,837	(383)
Total Revenues	$1,066,367	$1,150,622	$1,220,560	$1,359,924	$1,311,784
Operating Expenditures (2)					
General & Administrative	$40,725	$47,861	$42,548	$45,281	$52,122
Traffic Engineering and Operations	4,654	3,813	3,244	3,262	3,162
Service Centers	28,304	32,304	35,556	38,703	41,972
Employee Benefits	107,646	113,986	98,515	96,993	91,161
Toll Collection	59,387	60,112	59,669	58,200	58,129
Normal Maintenance	64,545	66,191	73,429	73,110	64,636
Facilities and Energy Mgmt. Operations	10,886	11,266	12,080	11,522	11,344
Turnpike Patrol	46,161	47,223	48,807	49,432	53,638
Total Operating Expenditures	$362,308	$382,756	$373,848	$376,503	$376,164
Revenues less Operating Expenditures	$704,059	$767,866	$846,712	$983,421	$935,620
Senior Annual Debt Service Requirement	$215,019	$237,010	$379,042	$303,781	$306,338
Coverage Ratio (3)	3.26	3.22	2.22	3.22	3.03
Annual Subordinate Debt Service Requirement	$222,064	$233,804	$256,817	$355,247	$320,707
Coverage Ratio (4)	1.61	1.63	1.33	1.49	1.49
Annual MLF Enhanced Debt Service Requirement	$36,525	$43,348	$37,938	$43,175	$42,057
Coverage Ratio (5)	1.49	1.49	1.26	1.40	1.40

(1) This summary of revenues and operating expenditures is not intended to present results of operations in conformity with generally accepted accounting principles. Debt service is net of capital interest and expected receipt of Federal Subsidy.
(2) Certain expenditure amounts for fiscal years 2014 and 2015 have been reclassified between General & Administrative and Toll Collection. The Commission had a recent reorganization that combined the Fare Collection and ETC departments and created a "Toll Collection" functional area. The reclassifications were necessary so prior year numbers were presented in a manner that is consistent with the modified reporting beginning in Fiscal Year 2016.
(3) Calculated using Senior Interest Income
(4) Calculated using Senior and Subordinate Interest Income
(5) Calculated using Senior, Subordinate and MLFE Interest Income

◊ Fiscal Year 2018 debt service coverage ratios reflect the voluntary retirement at maturity of $100 million of Senior floating rate notes that were originally expected to be refunded. Had the Commission chosen to refund the $100 million in notes Fiscal Year 2018 Senior, Subordinate and MLF Enhanced debt service coverage ratios would have been 3.04, 1.58 and 1.48respectively.

Budget Process

The Commission's Finance and Administration Department develops preliminary budget information for all Commission departments. This information is provided to each of the respective departments for their review and to enable them to make any proposed revisions for their budget requests. The information is then returned to the Finance and Administration

Department and a Commission wide preliminary budget is prepared. This budget is reviewed by senior management and, in cooperation with the respective departments, revisions are made when necessary to conform to the annual financial plan. The final recommended budget is then presented to the Board of Commissioners for formal approval.

In addition, Act 44 requires the Commission to prepare and submit an annual financial plan to the Secretary of the Budget of the Commonwealth no later than June 1 of each year for the ensuing fiscal year, describing its proposed operating and capital expenditures, borrowings, liquidity and other financial management covenants and policies, estimated toll rates and all other revenues and expenses. The purpose of the annual financial plan is to demonstrate that the Commission's operation in accordance with such plan can be reasonably anticipated to generate unencumbered funds sufficient to make all payments due to PennDOT under Act 44, Act 89 and the Amended Funding Agreement in the upcoming year after all other Commission obligations and interest thereon, sinking fund requirements of the Commission, and other requirements in any trust indenture, notes or resolutions have been met. Any deviations and the causes therefor in prior year plans must be explained. The Commission delivered to the Secretary of the Budget its Act 44 Financial Plan on June 1, 2020. See "THE COMMISSION – Enabling Acts – *Rules Relating to Governance and Accountability Under the Enabling Acts*" above.

Performance Audit by the Auditor General

The Enabling Acts require the Auditor General of the Commonwealth to conduct an audit of the accounts of the Commission and to review its performance, procedures, operating budget, capital budget and debt every two years. The Act of October 23, 1988, P. L. 1059, No. 122 ("***Act 122***") also requires the Auditor General to conduct a financial audit and a compliance audit of the Commission every four years.

On March 18, 2019, Auditor General Eugene A. DePasquale issued a final report presenting the results of the statutorily required financial and performance audits of the Commission under Act 44 and Act 122 (the "***March 2019 Performance Audit***"). The financial portion of the audit covered the period from June 1, 2015 to May 31, 2017, and the performance portion of the audit covered the period from June 1, 2015 to January 30, 2019. The Auditor General's office did not conduct its own financial audit but reviewed audits and supporting documentation of the independent firm that audits the Commission's financial statements annually, including working papers for the two Fiscal Years ended May 31, 2016 through May 31, 2017.

The performance audit had two objectives: (1) to review and evaluate the process of selecting and awarding construction contracts; and (2) to determine if the Commission's revenue collections are meeting projected toll revenue expectations in order to meet its payment obligations and planned capital improvement projects. The performance audit presented two findings and six recommendations with four directed to the Commission and two to the Pennsylvania General Assembly.

The March 2019 Performance Audit included findings with respect to the following areas:

- The Commission's ability to raise toll revenue to cover Act 44/89 payments to PennDOT and expenditures for capital projects remains potentially unsustainable; and

- The Commission awarded construction contracts and engineering consultant agreements in accordance with its policies and procedures.

The March 2019 Performance Audit also included recommendations to the Commission and the General Assembly.

The March 2019 Performance Audit recommended that the Commission should:

- Prioritize only capital projects requiring immediate attention;

- Ensure that traffic projections are conservative and realistic;

- Evaluate and scrutinize sources of revenue and operating expenses; and

- Evaluate ways to increase passenger car and commercial use of the Turnpike.

In addition, the Auditor General's Performance Audit recommended that the Pennsylvania General Assembly immediately re-evaluate Acts 44/89 and consider drafting and enacting new legislation to closely focus on interim alternative revenue sources. New legislation could help to ensure the current debt burden placed on the Commission is considerably mitigated for the continued viability of the Commission and the toll system in Pennsylvania. The Auditor General also recommended that the General Assembly refrain from increasing the $50 million annual payment scheduled to begin during the fiscal year ending May 31, 2023.

The full text of the Department of Auditor General's final report and the Commission's response may be found on the Commission's website at: https://www.paturnpike.com/pdfs/business/finance/AuditorGeneralsPeformanceAuditMar2019.pdf.[24]

The March 2019 Performance Audit followed a prior Performance Audit by the Auditor General issued on September 2, 2016 presenting the results of his quadrennial audit of the Commission under Act 44 and Act 122 (the "***September 2016 Performance Audit***"). The financial portion of the audit covered the period from June 1, 2010 to May 31, 2015, and the performance portion of the audit covered the period from June 1, 2014 to July 11, 2016. The Auditor General's office did not conduct its own financial audit but reviewed audits and supporting documentation of the independent firm that audits the Commission's financial statements annually, including working papers for the five Fiscal Years ended May 31, 2011 through May 31, 2015.

The September 2016 Performance Audit included new findings with respect to the following areas:

24 The information contained on such website link is not incorporated by reference in this Appendix.

- The Commission's ability to raise toll revenue to cover Act 44/89 payments to PennDOT and expenditures for capital projects is potentially unsustainable;

- Rapid increases in toll violations with little enforcement power may lead to additional financial problems for the Commission; and

- The Commission complied with Commission policies and procedures in connection with services and supplies contracts, and complied with Commonwealth's Procurement Code in connection with construction contracts.

The September 2016 Performance Audit also included recommendations relating to prior audit findings with respect to the following areas:

- Non-revenue use of the Turnpike System by Commission employees;

- Non-revenue use of the Turnpike System by nearly 5,000 consultants, contractors, and other state government officials;

- Continued or expanded monitoring, review and inspection of the Turnpike System’s tunnels; and

- Reimbursement of the travel and other expenses of Commissioners.

On August 18, 2016, in response to the release by the Auditor General of a draft report, the Commission’s Chief Executive Officer responded by letter to the Auditor General, addressing the proposed recommendations of the Department of Auditor General. The full text of the Department of Auditor General’s final report and the Commission’s response may be found on the Commission’s website at:

https://www.paturnpike.com/pdfs/business/finance/AuditorGeneralsPerformance AuditSept2016.pdf.[25]

Financial Policies and Guidelines

The Commission’s Investment Policy and Guidelines, adopted on June 6, 1997 and amended from time to time thereafter (the “***Investment Policy***”), sets forth the purpose, objectives and investment guidelines for eligible securities for the investment of financial assets of the Commission. Eligible securities include those that are consistent with the Senior Revenue Indenture. For a discussion of the Commission’s concentration of credit risk to particular issuers, see Note 4 to the Financial Statements.

The Investment Policy provides that appropriate benchmarks shall be developed for the various funds invested by the Commission and that the returns of the Commission’s individual portfolio segments are to be compared to such benchmarks. Pursuant to the Investment Policy, the Commission’s Investment Policy Committee must prepare an investment report for the Commissioners on a quarterly basis, including a management summary that provides a clear

25 The information contained on such website link is not incorporated by reference in this Appendix A.

picture of the status of the current investment portfolio and transactions made over the latest reporting period. The report is to include investment performance and demonstrate conformity with the Investment Policy.

The Commission adopted three additional financial policies on April 20, 2004: a Liquidity Standard Policy, a Debt Management Policy and an Interest Rate Swap Management Policy (the "***Swap Policy***"). These financial management policies were developed in recognition of the increasing financial sophistication of the Commission with respect to its debt structure and to provide guidance governing the issuance, management, ongoing evaluation and reporting of all debt obligations.

The Liquidity Standard Policy requires that the Commission maintain sufficient year-end fund balances to ensure levels of uncommitted reserves necessary to secure and protect its long-term debt and other financial obligations. Under this policy, the Commission budgets and maintains cumulative fund balances, including balances in the Reserve Maintenance Fund and the General Reserve Fund, equal to the greater of maximum annual debt service on those bonds not secured by a debt service reserve fund or 10% of annual budgeted revenues.

The Debt Management Policy establishes parameters and provides guidance governing the issuance and management of Commission debt. It addresses such issues as usage of unhedged variable rate debt, rate covenants and limitations on additional bonds and disclosure. Notwithstanding the rate covenants in the Senior Revenue Indenture, the Commission's Debt Management Policy requires the Commission's management to maintain 2.00 debt service coverage on the Turnpike Revenue Bonds, 1.30 debt service coverage on the Subordinate Revenue Bonds and 1.20 debt service coverage on the Special Revenue Bonds. For a discussion of the rate covenant under the Senior Revenue Indenture, see "SECURITY FOR THE 2020B BONDS – Rate Covenant" in the forepart of this Official Statement. The Commission's Debt Management Policy is available on the Commission's website at https://www.paturnpike.com/pdfs/business/Debt%20Management%20Policy%20Letter.pdf.[26]

Currently, approximately 91% of the Commission's outstanding debt is fixed rate, 6.0% is synthetic fixed and 3% is unhedged variable rate.

The Commission's Swap Policy establishes guidelines for the use and management of all interest rate management agreements, including, but not limited to, interest rate swaps, swaptions, caps, collars and floors (collectively, "***Swaps***") incurred in connection with the incurrence of debt. The Commission's Swap Policy was amended in October 2018 to reflect current regulations and best practices in the derivatives industry, particularly with respect to the selection requirements and on-going monitoring related to swap advisors.

The Swap Policy authorizes the Commission to use Swaps to hedge interest rate movement, basis risk and other risks, to lock in a fixed rate or, alternatively, to create synthetic variable rate debt. Swaps may also be used to produce interest rate savings, limit or hedge variable rate payments, alter the pattern of debt service payments, manage exposure to changing market conditions in advance of anticipated bond issues (through the use of anticipatory hedging

26 The information contained on such website link is not incorporated by reference in this Appendix A.

instruments) or for asset/liability matching purposes. Key elements of the Swap Policy include the following:

Swap Counterparties – Credit Criteria. The Commission will make its best efforts to work with qualified Swap counterparties that have a general credit rating of: (i) at least "A3" or "A-" by two of the nationally recognized rating agencies and not rated lower than "A3" or "A" by any nationally recognized rating agency, or (ii) have a "non-terminating" "AAA" subsidiary as rated by at least one nationally recognized credit rating agency.

Term and Notional Amount. For Swaps tied to an issued series of bonds, the term of the Swap agreement shall not extend beyond the final maturity date of the related bonds. The total net notional amount of all Swaps related to a bond issue should not exceed the aggregate principal amount of outstanding bonds. In calculating the net notional amount, netting credit shall be given to any Swaps that offset each other for a specific bond transaction.

Security and Source of Repayment. The Commission may use the same security and source of repayment (pledged revenues) for Swaps as is used for bonds that are hedged by the Swap, if any, but shall consider the economic costs and benefits of subordinating the Commission's payments and/or termination payment under the Swap. The Commission shall consult with Bond Counsel regarding the legal requirements associated with making the payments under the Swap on a parity or non-parity basis with outstanding Commission debt.

Prohibited Agreements. The Commission will not use Swaps that:

- Are speculative or create extraordinary leverage as risk;
- Lack adequate liquidity to terminate without incurring a significant bid/ask spread; or
- Provide insufficient price transparency to allow reasonable valuation.

Annual Swap Report. The Commission's Assistant Chief Financial Officer for Financial Management, in consultation with the Commission's Swap Advisor and legal counsel, will evaluate the risks associated with outstanding Swaps at least annually and provide to the senior executives and the Commissioners a written report of the findings based upon criteria set forth in the Swap Policy.

Disclosure and Financial Reporting. The Commission will ensure that there is full and complete disclosure of all Swaps to rating agencies and in disclosure documents. Disclosure in marketing documents, including bond offering documents, shall provide a clear summary of the special risks involved with Swaps and any potential exposure to interest rate volatility or unusually large and rapid changes in market value. With respect to its financial statements, the Commission will adhere to the guidelines for the financial reporting of Swaps, as set forth by the Governmental Accounting Standards Board ("***GASB***"), Commodity Futures Trading Commission, or other applicable regulatory agencies.

The Commission has interest rate exchange agreements with respect to its Turnpike Revenue Bonds, Series 2009A, 2010B, 2014B, 2018A, 2018B, 2019R2, 2020R2 and 2020A. In addition, the Commission has interest rate exchange agreements with respect to its Subordinate Revenue Bonds Series 2017R-1, Registration Fee Revenue Bonds, Series 2005, and Oil Franchise Tax Revenue Bonds, Series 2009B and 2016A.

Interest Rate Exchange Agreements
As of June 30, 2020

Lien	Current Notional	Mark to Market Valuation
Senior Bonds	$786,150,000	($220,155,667)
Subordinate Bonds	$291,850,000	($34,281,014)
Motor Vehicle Registration	$231,425,000	($125,259,058)
Oil Franchise Tax	$320,000,000	$4,754,573

See Note 4, Note 7 and Note 9 to the Financial Statements for additional information relating to the foregoing. The Commission does not have any interest rate exchange agreements associated with its Special Revenue Bonds.

There are a number of risks associated with Swaps that could affect the value of the Swaps, the ability of the Commission to accomplish its objectives in entering into the Swaps and the ability of the Commission to meet its obligations under the Swaps. These risks include, among others, the following: counterparty risk – the failure of the counterparty to make required payments; credit risk – the occurrence of an event modifying the credit rating of the Commission or its counterparty; termination risk – the need to terminate the transaction in a market that dictates a termination payment by the Commission under certain events, including but not limited to, credit rating downgrades of the Commission, defaults, etc.; collateral posting risk – the risk of the Commission posting collateral upon certain credit rating downgrades; tax risk – the risk created by potential tax events that could affect Swap payments; and basis risk – the mismatch between actual variable rate debt service and variable rate indices used to determine Swap payments.

In addition, on July 27, 2017, the Financial Conduct Authority announced that it will no longer persuade or compel banks to submit rates for the calculation of LIBOR rates after 2021 (the "***FCA Announcement***"). Many of the Commission's Swaps use a LIBOR based rate as a reference rate for determining payments to be received or payments to be made thereunder. It is not possible to predict the effect of the FCA Announcement, any changes in the methods pursuant to which LIBOR rates are determined, or any other reforms to LIBOR that may be enacted, any of which may adversely affect the determination of LIBOR rates or result in the phasing out of LIBOR as a reference rate. Any such effects could result in a sudden or prolonged increase or decrease in reported LIBOR rates, or result in the replacement of LIBOR with other reference rates, and could have a negative impact on the market value of the Commission's swaps and the payment obligations of the Commission thereunder.

The Commission actively monitors the degree of risk and exposure associated with the Swaps to which it is a party but can offer no assurances that compliance with its Swap Policy will prevent the Commission from suffering adverse financial consequences as a result of these transactions.

The Commission has adopted additional financial policies related to post issuance compliance procedures and continuing disclosure.

The Tax-Exempt Debt, Build America Bonds and Other Tax-Advantaged Debt Post-Issuance Compliance Policies and Procedures (the "***Post Issuance Compliance Policy***") became effective on December 21, 2011 and implemented various policies and procedures to ensure that the Commission complies with all applicable federal tax rules related to its tax-exempt debt, Build America Bonds and other tax-advantaged debt issuances. Among other items, the policy requires compliance with all applicable federal tax documentation and filing requirements, yield restriction limitations, arbitrage rebate requirements, use of proceeds and financed projects limitations and recordkeeping requirements.

The Continuing Disclosure Policy was adopted by the Commission on February 2, 2016 and applies to all publicly offered Commission municipal securities that are subject to federal securities laws and/or continuing disclosure agreements. The policy requires the Commission to comply with all applicable securities laws, satisfy in a timely manner all contractual obligations undertaken pursuant to continuing disclosure agreements or otherwise, and to adhere to best practices for disclosure. The policy also requires the development, establishment and implementation of written procedures necessary to implement the Continuing Disclosure Policy, identifies key Commission participants responsible for disclosure, defines the role of Commission Disclosure Counsel and addresses training and document retention related to disclosure obligations.

Copies of the Commission's Investment Policy, Liquidity Standard Policy, Debt Management Policy, Swap Policy, Post Issuance Compliance Policy and Continuing Disclosure Policy can be found on the Commission's website at: https://www.paturnpike.com/pdfs/about/Policy_Letters.pdf.[27]

The policies of the Commission described above may be revised or amended at any time at the discretion of the Commission.

Future Financing Considerations

The Commission may also issue additional bonds under the Senior Revenue Indenture (in addition to the 2020B Bonds) and under the Subordinate Revenue Indenture.

In addition, the Commission may, from time to time, issue other notes and bonds payable from such sources as may be available so long as the Tolls, the Oil Franchise Tax Revenues securing the Oil Franchise Tax Revenue Bonds or the Registration Fee Revenues securing the Registration Fee Revenue Bonds are not pledged to such other notes and bonds or, if pledged, are pledged on a subordinate basis. The Commission anticipates that it will borrow substantial additional funds for the purpose of funding capital expenditures for the System pursuant to the Fiscal Year 2021 Capital Plan. Borrowings for the Fiscal Year 2021 Capital Plan are expected to

27 The information contained on such website link is not incorporated by reference in this Appendix A.

be undertaken principally under the Senior Revenue Indenture. In addition, pursuant to Act 89, the Commission anticipates that it will borrow substantial additional funds for purposes of funding payments under Act 44, Act 89 and the Amended Funding Agreement through Fiscal Year 2021-2022. Such borrowings are expected to be undertaken principally under the Subordinate Revenue Indenture. In addition, the Commission may from time to time increase toll rates to meet the debt, capital and operational obligations of the Commission. The most recent toll increase that has gone into effect was on January 5, 2020. See "CERTAIN FINANCIAL INFORMATION – Toll Schedule and Rates" above for further information.

The Commission's Act 44 Financial Plan anticipates multiple funding sources will be utilized to support the estimated $5.808 billion in net costs associated with the Fiscal Year 2021 Capital Plan. These funding sources will include the use of current revenues (pay-as-you-go), proceeds of Turnpike Revenue Bonds and proceeds of loans issued through the Immigrant Investor Program (known as the EB-5 visa program) administered by the U.S. Citizenship and Immigration Services. Additionally, the Commission previously entered into a loan agreement dated August 4, 2016, (see http://emma.msrb.org/ES821235-ES644377-ES1039543.pdf [28] for a copy of such agreement) pursuant to which the Commission expects to borrow up to $800 million (in up to sixteen tranches during the years 2017 through 2024) through the Immigrant Investor Program, the proceeds of which would be used to fund costs of capital projects included in the Fiscal Year 2021 Capital Plan. Any such debt issued under the Immigrant Investor Program (and the subsequent refinancing thereof) is accounted for in the Commission's current Act 44 Financial Plan and would be issued under the Senior Revenue Indenture on parity with the Turnpike Revenue Bonds. In February 2018, the Commission drew down the first tranche of $800 million in EB-5 loans for $50 million; and in November 2018, November 2019 and January 2020, the Commission drew down another $45 million, $52 million and $36.5 million, respectively. See "CERTAIN FINANCIAL INFORMATION - Direct Purchase Obligations – *EB-5 Loans (Senior)"* above for further information.

The Commission regularly evaluates market conditions with respect to the possible refunding of its outstanding Turnpike Revenue Bonds, Subordinate Revenue Bonds, Special Revenue Bonds, Oil Franchise Tax Revenue Bonds and Registration Fee Revenue Bonds.

The ability of the Commission to repay such borrowings could be adversely affected by many factors, some of which are beyond the control of the Commission. For example, economic circumstances which result in significant declines in motor vehicle acquisition or operating cost increases could adversely affect the number of motor vehicles in use. An increase in the cost of fuel could adversely affect both the number of motor vehicles using the System and the mileage that such vehicles travel. Government regulations, such as Clean Air Act requirements, might also significantly restrict motor vehicle use and therefore diminish Tolls.

28 The information contained on such website link is not incorporated by reference in this Appendix A.

CERTAIN OTHER INFORMATION

Insurance

The Commission maintains All-Risk Property, Builder's Risk, Public Official bonds, Crime and Fiduciary insurance coverage and is self-insured for Workers' Compensation, Auto Liability, and General Liability claims.

For capital projects, the Commission maintains Builders' Risk insurance that covers buildings and structures, including temporary structures, while being constructed, erected or fabricated on Commission property. This insurance provides coverage against risk of physical damage and/or loss (subject to policy exclusions) to all buildings and structures during construction. Upon completion, a project is then covered under an All Risk insurance policy that has a $200 million per occurrence policy limit. See "THE COMMISSION- Recent Developments and Pending Legislation--*Status of Delaware River Bridge*" herein.

Deductibles range in amount depending on the line of coverage and the nature of the claim. For bridges, tunnels, overpasses, underpasses and viaducts, the deductible is $5 million. For buildings (including contents), toll plazas and equipment, warehouses and similar facilities, the deductible is $1 million. The Commission's All Risk Insurance policy also includes loss of income coverage subject to a seven-day waiting period.

Certain pre-specified construction projects are insured under an "Owner Controlled Insurance Program" until completion. Under these programs, the Commission, contractors and subcontractors are insured for Workers' Compensation, General Liability, Builder's Risk and other project-specific insurance with limits and large deductibles varying by project.

Personnel and Labor Relations

As of July 1, 2020, the Pennsylvania Turnpike Commission employed a total of 1,370 persons, consisting of 464 management employees, 906 full-time union employees and 0 supplemental union employees. Fifty-nine percent of all employees are engaged in maintenance operations and fare collection. There are 751 field personnel located across 23 facilities, which is comprised of employees in the maintenance and facilities operations departments. The Commission currently employs 1180, or 46.3% fewer employees than it did at the peak employment year of 2002. As noted previously, on June 2, 2020 the Commissioners unanimously approved a measure to lay off approximately 500 employees, primarily fare collection-related employees, effective June 18, 2020. The Commission will continue permanent AET In-Place operations in response to the COVID Pandemic.

The civil service requirements applicable to the state government do not apply to employees of the Commission.

The Commission is a party to three collective bargaining agreements and one memorandum of understanding with Teamsters' Local Unions covering central office, field, professional and first level supervisory personnel. The three collective bargaining agreements became effective on October 1, 2007 and expired on September 30, 2011. An agreement was reached with one bargaining unit, which was effective as of November 19, 2013 and extended until September 30, 2019. Agreements were reached with the other two bargaining units, which were ratified on January 27, 2016. Those agreements expired on September 30, 2019. The memorandum of understanding, which became effective on October 1, 2007, has no termination date. Labor negotiations for the next contract began on November 28, 2018 with Teamsters Local Union Nos. 77 and 250 and on May 1, 2019 with Teamsters Local Union Nos. 30P and 30S. The Commission has reached agreements with Teamster Local Union Nos. 77, 250 and 30P, which agreements have been ratified by each Local and approved by the Commission. Negotiations with Local 30S are ongoing. Since union representation began, the Commission has experienced one work stoppage which occurred on November 24, 2004 and lasted for seven days.

Retirement Plan

The State Employee's Retirement System of the Commonwealth ("***SERS***") is one of the nation's oldest and largest statewide retirement plans for public employees. SERS administers both a defined benefit plan and a defined contribution plan. The defined benefit plan is funded through a combination of employee contributions, employer contributions and investment earnings. The defined contribution plan (Commonwealth of Pennsylvania Deferred Compensation Program) is funded by voluntary employee contributions and investment earnings.

Substantially all employees of the Commission are covered by SERS. The costs of the defined benefit plan are paid by the Commission quarterly based upon a stipulated contribution rate. Participating agency contributions, including those for the Commission, are mandated by statute and are based upon an actuarially determined percentage of gross pay that is necessary to provide SERS with assets sufficient to meet the benefits to be paid to SERS members.

Article II of the Pennsylvania Constitution provides the General Assembly the authority to establish or amend benefit provisions. Act 2001-9, signed into law on May 17, 2001, established Class AA ("***Class AA***") membership whereby, generally, annual full retirement benefits for electing active members is 2.5% of the member's highest three-year average salary (final average salary) multiplied by years of service. Commission employees hired after June 30, 2001, but before January 1, 2011, are Class AA members. Members hired on or before June 30, 2001 had the option, but were not required, to elect Class AA membership.

Those members not electing Class AA membership are considered Class A ("***Class A***"). The general annual benefit for full retirement for Class A members is 2% of the member's final average salary multiplied by years of service. Retirement benefits for Class A and AA employees vest after 5 years of credited service. Class A and AA employees who retire at age 60 with three years of service or with 35 years of service if under age 60 are entitled to an unreduced annual retirement benefit.

On July 6, 2010, Pennsylvania Act 2010-46 was enacted which reduced the employer contribution rates for Fiscal Year 2010-2011, thus reducing the Commission's contribution rates for Fiscal Year 2010-2011 from 3.80% for Class A employees and 4.75% for Class AA employees to 3.29% for Class A employees and 4.11% for Class AA employees. This rate reduction was only for one year.

On November 23, 2010, Pennsylvania Act 120 of 2010 ("***Act 120***") was enacted. Under this legislation, effective January 1, 2011, benefit reductions are mandated for future SERS members; however, benefits for current members are preserved. New employees are subject to a higher contribution rate, an increase in the vesting period from five to ten years, elimination of lump-sum withdrawals, and an increase to the normal retirement age to obtain full, unreduced pension benefits. Rather than the current full benefit provision of 35 years of credited service, new employees' age and combined years of service must equal 92, including a minimum of 35 years of credited service, before they may receive full benefits. Act 120 established Class A-3 and Class A-4 memberships. Effective January 1, 2011, all new members to the System must elect one of these new membership classes. New members who elect Class A-3 will accrue benefits at 2% of their final average salary multiplied by years of service. Those members choosing Class A-4 will accrue benefits at 2.5% of their final average salary multiplied by years of service. Under Act 120, retirement benefits for Class A-3 and A-4 vest after 10 years of credited service. Class A-3 and A-4 members who retire at age 65 with three years of service or when the member's age (last birthday) plus their completed years of credit service total at least 92 (Rule of 92) are entitled to an unreduced annual retirement benefit. Members hired prior to January 1, 2011 retain their current full benefit provision of 35 years of credited service.

On June 12, 2017, Governor Wolf signed Act 5 of 2017 ("***Act 5***") into law that fundamentally changed retirement options for most new Commission employees beginning January 1, 2019. Act 5 allowed current Commission employees/SERS members to opt-in to one of the three new options between January 1, 2019 and March 31, 2019.

Among other changes, Act 5 creates three new classes of service which include: two new hybrid defined benefit/defined contribution tiers ("***A-5***" and "***A-6***"); and a straight defined contribution plan ("***DC***") for SERS. The new classes of service apply to all Commission employees who first become SERS members on or after January 1, 2019. Benefit reductions and increased retirement ages are mandated for future SERS members. Beginning January 1, 2019, new A-5 employees will annually accrue benefits at a rate of 1.25% and A-6 employees will annually accrue benefits at a rate of 1.0%. A-5, A-6 and DC employees will be subject to different employee contribution rates for the defined benefit and defined contribution plans and the vesting period for the defined benefit portion will be ten years while the defined contribution portion vests after three years. Additionally, Act 5 increases the normal retirement age to obtain full, unreduced defined benefit pension benefits for new A-5 and A-6 employees to age 67 and it requires 35 years of service and utilizes the "Rule of 97" (i.e., years of service plus age equal or exceed 97) The final average salary used to calculate defined benefits will be the employee's five highest salary years. Employer contribution rates for A-5, A-6 and 401(a)DC employees will be 2.25%, 2.0% and 3.5%, respectively.

Act 5 does not affect current Commission retiree's pension benefits nor does it reduce benefits for Commission employees hired before January 1, 2019. Act 5 also provides special benefit enhancements for current A-3 and A-4 Commission employees who will be allowed to take certain lump sum withdrawals upon retirement. Additionally, A-3 and A-4 employee pension contribution rates will go down when SERS investment returns exceed return targets ("***Shared-Gain***"). This provision balances the current downside risk-sharing required of A-3 and A-4 members as required by Act 120.

For more information on SERS, including Act 120 and Act 5, see the SERS website at http://sers.pa.gov/Newsroom.html[29], http://sers.pa.gov/About-Legislation.html[30], and the disclosure beginning on page 42 of the Official Statement for the Commonwealth's General Obligation Bonds, First Refunding Series of 2019 dated June 12, 2019, which may be found at the EMMA website at https://emma.msrb.org/ER1233410-ER965027-ER1365955.pdf.[31] **See also Note 8 to the Commission's Financial Statements and related Required Supplementary Information for more information on the Commission's pension liabilities.**

Covered Class A, Class AA, Class A-3, A-4, A-5, A-6 and 401(a)DC employees are required by statute to contribute to SERS at a rate of 5.00%, 6.25%, 6.25%, 9.30%, 8.25%, 7.5% and 7.5%, respectively, of their gross pay. Employees' contributions are recorded in individually identified accounts, which are also credited with interest, calculated quarterly to yield 4.00% per annum, as mandated by statute. Accumulated employee contributions and credited interest vest immediately and are returned to the employee upon termination of service if the employee is not eligible for other benefits.

Participating agency contributions, including those for the Commission, are also mandated by statute and are based upon an actuarially determined percentage of gross pay that is necessary to provide SERS with assets sufficient to meet the benefits to be paid to SERS members. The Commission's required retirement contribution, as a percentage of covered payroll, by class for the most recent five (5) Fiscal Years of the Commonwealth, is as follows:

Year Ended June 30 (Commonwealth's Fiscal Year)	Class A	Class AA	Class A-3	Class A-4	Class A-5	Class A-6	401(a)DC
2020	28.84%	36.04%	24.92%	24.92%	19.18%	19.18%	19.12%
2019	27.71	34.63	23.94	23.94	18.42	18.42	18.39
2018	27.55	34.44	23.80	23.80	N/A	N/A	N/A
2017	23.96	29.95	20.70	20.70	N/A	N/A	N/A
2016	19.89	24.86	17.18	17.18	N/A	N/A	N/A

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29 The information contained on such website link is not incorporated by reference in this Appendix A.
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The Commission's required contributions and percentage contributed for most recent five (5) Fiscal Years of the Commission are as follows:

Year Ended May 31	Commission Required Contribution (in millions)	Percent Contributed
2020	$37.8	100%
2019	37.8	100
2018	38.1	100
2017	33.3	100
2016	27.9	100

The Commission has budgeted $53.5 million for pension expense for Fiscal Year 2021. The SERS required contributions are expected to be approximately $32 million.

A copy of SERS's annual financial statements may be obtained by writing to: State Employees' Retirement System, 30 North Third Street, P.O. Box 1147, Harrisburg, Pennsylvania, 17108-1147. Additional information about SERS, including its Comprehensive Annual Financial Reports and actuarial valuation reports, are available at http://www.sers.state.pa.us.[32]

Act 120 also imposes limits referred to as "collars" on annual increases to employer contribution rates (i.e., the employer contribution rate for a particular year may not exceed the sum which results from adding the collar applicable for such year to the prior year's contribution rate). The collar for Commonwealth Fiscal Year 2015-2016 was 4.5% and will no longer apply effective July 1, 2017.

At Fiscal Year ended May 31, 2020, the Commission reported a liability of $329.2 million for its proportionate share of the net pension liability. The net pension liability was measured as of December 31, 2019, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. See Note 8 to the Commission's Financial Statements for additional information on how such pension liability was calculated.

Other Post-Employment Benefit Liabilities

The Commission maintains another postemployment welfare plan program (the "***Plan***") for the purpose of providing benefits to eligible retirees and their dependents. The Plan is a single employer, defined benefit plan. The Plan's financial statements are not included in the financial statements of a public employee retirement system. The Plan issues a stand-alone

32 The information contained on such website link is not incorporated by reference in this Appendix A.

financial report, which can be obtained by contacting the Commission's Accounting and Financial Reporting Department.

The Commission established the Pennsylvania Turnpike Commission Retiree Medical Trust (the "***Trust***") on May 30, 2008 as an irrevocable trust, tax-exempt under the Internal Revenue Code, to provide funding for the Plan. The Trust is administered by five trustees appointed by the Commission, who each serve two-year terms. The chairman and vice chairman of the Trust are appointed by the Trustees and serve two-year terms. PNC Bank, N.A. serves as custodian of the assets of the Plan. Disbursement of Plan assets are made by the custodian at the direction of the Trustees.

Plan benefit provisions and retiree and dependent contribution rates are established and may be amended by the Commission.

<u>Management and Supervisory Union Employees/Retirees</u>. The benefits funded by the Trust include certain post-employment medical, prescription drug, dental and vision benefits to management and supervisory union employees based upon their date of hire and years of service. Eligibility categories generally include:

- Employees hired before March 1, 2016, who have reached 20 years of service and are under age 60; benefit eligibility changes from 20 to 10 years for retirees 60 years of age or older. The last five years of service must be with the Commission.

- Employees hired on or after March 1, 2016, who have reached 30 years of service and are under age 60; benefit eligibility changes from 30 to 25 years for retirees 60 years of age or older. The last ten years of service must be with the Commission. (Some current and previous Commonwealth employees hired on or after this date would be grandfathered under the first eligibility category.)

The same coverage is provided to surviving spouses or domestic partners and dependents of management and supervisory union retirees who retired on or after March 1, 2001. Surviving spouses or domestic partners of retirees who retired prior to March 1, 2001, may purchase medical coverage at the group rate and dependents are offered coverage under COBRA. Medicare Part B premiums are paid by the retiree, spouse or dependent if age 65 or over, or under age 65 and disabled.

<u>Non-Supervisory Union Employees/Retirees</u>. The Benefits also include certain post-employment medical and prescription drug benefits to non-supervisory union employees who have satisfied the eligibility requirements in the applicable collective bargaining agreement.

- For Local 30 Professionals who were hired prior to January 1, 2011 and Local 250 and 77 employees who were hired prior to January 27, 2016, the earlier of completion of 20 years of credited service or the later of attainment of age 60 and completion of 10 years of credited service. The last 5 years of credited service must be with the Commission.

- For Local 30 Professionals who were hired on or after January 1, 2011 and Local 250 and 77 employees who were hired on or after January 27, 2016, the earlier of completion of 30 years of credited service or the later of attainment of age 60 and completion of 25 years of credited service. The last 10 years of credited service must be with the Commission.

The same coverage is provided to spouses or domestic partners and dependents of eligible non-supervisory union retirees until the death of the retiree. Surviving spouses or domestic partners are required to contribute the full cost of coverage and dependents are offered coverage under COBRA.

In accordance with the pronouncements of the GASB (Governmental Accounting Standards Board), the Commission implemented GASB Statement No. 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions during Fiscal Year 2008. GASB Statement No. 45 was superseded by GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions. Statement No. 75 addresses accounting and financial reporting for OPEB that is provided to the employees of state and local governmental employers. Statement No. 75 establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources, and expenses. The Commission adopted Statement No. 75 for its fiscal year ended May 31, 2019.

The Commission's total OPEB liability was $1.8 million at May 31, 2020. This liability was determined by an actuarial valuation as of May 31, 2019. Based on this valuation, the Plan's total OPEB liability was $462.2 million; the Plan's Fiduciary Net Position was $460.4 million resulting in a 99.6% funded status (Plan fiduciary net position as a percent of total OPEB liability) at the measurement date.

The Commission began making contributions to the Trust in fiscal 2008 and adopted a Retiree Medical Trust Funding Policy, effective September 17, 2008. In accordance with the Funding Policy, the Commission anticipates approving an annual contribution to the Trust in the amount of the Annual Required Contribution (ARC) as determined by the Commission's actuary in accordance with GASB Statement No. 45, during the approval of its annual operating budget. With the implementation of GASB Statement No. 75, the Commission will now refer to the Actuarially Determined Contribution (ADC) instead of the ARC.

The ADC for Fiscal Year 2020 was $11.7 million. The Commission's contributions in relation to the ADC for Fiscal Year 2020 were $11.7 million. The Commission has budgeted $16.8 million for OPEB contributions for Fiscal Year 2021.

The Plan's financial statements are not included in the financial statements of the Commission. For additional information regarding the Benefits and the Plan, including funding status and actuarial methods and assumptions, see Note 11 to the Commission's Financial Statements.

Commission Compliance Department

In 2009, an Office of Inspector General (the "***OIG***") was created within the Commission to maintain integrity and efficiency at the Commission and to further maintain public confidence in the Commission. In 2012, the OIG merged into the newly created Compliance Department. The functions of the former OIG currently fall under the Compliance Department and the Special Investigations unit within the Compliance Department. The primary mission of the Compliance Department is developing, managing, and executing comprehensive audit and investigation programs that examine and promote the adequacy and effectiveness of the Commission's internal control system. The Compliance Department includes the office of Chief Compliance Officer and the departments of Toll Revenue Audit, Internal Audit Services, and Special Investigations. As head of the department, the Chief Compliance Officer oversees all aspects of operations auditing, toll revenue auditing, and internal and external investigations to include working with the local District Attorneys' Offices in pursuing criminal prosecutions of the Commission's most egregious toll violators, enforcement of Commission rules, regulations, policies and strategic planning, and the Commission's Code of Conduct. The Compliance Department has conducted numerous investigations of fraud, waste, abuse and misconduct that have resulted in the termination of Commission employees and a vendor contract. The Compliance Department, in response to the Advisory Committee's Report dated, October 21, 2014, has conducted Code of Conduct and Business Conduct Guidelines training to all Commission employees, construction contractors, and vendors, consultants and other business partners in the construction services sector. When appropriate, the Compliance Department refers cases to law enforcement authorities for possible criminal prosecution.

EXHIBIT I

PENNSYLVANIA TURNPIKE COMMISSION
FISCAL YEAR 2021 TEN-YEAR CAPITAL PLAN

FY 2021 Ten Year Capital Plan (YOE)

Program	Category	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	Total FINAL PLAN
Highw ay	Roadw ay/Safety	131,742,000	71,931,080	74,337,263	89,013,541	103,614,341	73,683,460	106,222,892	103,383,197	87,901,176	90,538,211	932,367,162
Highw ay	Bridge,Tunnels & Misc Structure	67,565,000	67,928,500	46,106,714	65,454,347	63,489,952	74,761,585	76,526,812	78,404,459	92,334,871	95,104,917	727,677,158
Highw ay	Total Reconstruction	126,171,300	161,514,300	213,756,561	136,536,239	112,472,095	248,281,728	283,229,205	293,816,866	282,616,405	330,499,047	2,188,893,747
Highw ay	Interchanges (w /o AET)	34,230,000	65,157,800	56,980,939	116,222,444	173,395,887	51,541,325	12,250,977	1,672,628	456,037	469,718	512,377,756
Highw ay	Highw ay Miscellaneous	21,930,569	28,089,926	41,161,223	37,847,037	36,562,604	38,204,341	39,350,471	27,986,272	28,825,860	28,320,624	328,278,926
Highw ay	Total (w /o AET)	381,638,869	394,621,606	432,342,700	445,073,608	489,534,880	486,472,440	517,580,356	505,263,423	492,134,349	544,932,518	4,689,594,749
FEMO	Re-capitalization	540,000	927,000	954,810	983,454	1,012,958	1,043,347	1,074,647	1,106,886	1,140,093	1,174,296	9,957,491
FEMO	Sustainment	3,550,000	10,289,700	10,598,391	10,479,252	10,793,629	11,117,438	11,450,962	11,794,490	15,441,927	15,905,185	111,420,975
FEMO	Compliance	2,500,000	1,648,000	3,941,244	3,753,517	3,883,005	4,271,925	4,417,993	4,550,533	4,687,049	4,827,661	38,480,928
FEMO	New Energy Initiative	8,839,136	2,301,160	2,370,195	2,113,483	2,064,336	2,126,266	2,190,054	2,255,756	2,323,429	2,428,444	29,012,259
FEMO	Facilities Design	7,035,000	19,142,550	23,880,859	15,778,978	21,047,015	29,561,489	19,821,268	28,902,036	22,928,538	10,568,663	198,666,396
FEMO	Total	22,464,136	34,308,410	41,745,498	33,108,684	38,800,944	48,120,465	38,954,925	48,609,702	46,521,037	34,904,248	387,538,049
Fleet Equipment	Fleet Equipment	17,523,797	12,996,025	15,298,178	15,757,123	17,389,111	17,910,784	18,448,108	19,001,551	19,571,598	21,390,274	175,286,550
Technology	Functional Business Softw are	17,162,420	4,279,103	8,752,425	7,922,271	7,034,430	7,245,463	6,268,775	5,687,400	316,693	4,240,513	68,909,492
Technology	Infrastructure HW / SW	9,220,249	17,398,535	15,877,695	12,971,598	6,601,433	7,262,306	1,446,548	1,516,081	1,589,653	2,779,167	76,663,265
Technology	Toll Collection / Operations	2,181,332	2,935,500	2,652,250	2,731,818	2,813,772	2,666,330	2,746,320	368,962	0	0	19,096,284
Technology	Total	28,564,001	24,613,138	27,282,370	23,625,686	16,449,635	17,174,100	10,461,643	7,572,444	1,906,345	7,019,680	164,669,041
EN-00115	All Electronic Tolling Conversion	18,500,000	25,750,000	67,897,600	69,934,528	28,137,720	61,441,526	44,179,935	54,114,450	40,536,643	20,876,371	431,368,773
	Grand Total (PSEXP)	468,690,803	492,289,179	584,566,346	587,499,629	590,312,290	631,119,315	629,624,967	634,561,570	600,669,972	629,123,092	5,848,457,162
	Reimbursed Funds	0	0	0	20,000,000	20,000,000	0	0	0	0	0	40,000,000
	Grand Total (PSNET)	468,690,803	492,289,179	584,566,346	567,499,629	570,312,290	631,119,315	629,624,967	634,561,570	600,669,972	629,123,092	5,808,457,162

[1] Capital plans from prior years back to Fiscal Year 2005-2006 are available on the Commission's website at https://www.paturnpike.com/business/capital_plan.aspx (The information contained on such website link is not incorporated by reference in this Appendix A).

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APPENDIX B

AUDITED 2020 AND 2019 FINANCIAL STATEMENTS

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PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania

Basic Financial Statements
Fiscal Years Ended May 31, 2020 and 2019
With Independent Auditor's Report

MITCHELL TITUS
ACHIEVING EXCELLENCE TOGETHER

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PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Basic Financial Statements
Fiscal Years Ended May 31, 2020 and 2019

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MITCHELL TITUS

INDEPENDENT AUDITOR'S REPORT

The Commissioners
Pennsylvania Turnpike Commission

Report on the Financial Statements

We have audited the accompanying financial statements of the Pennsylvania Turnpike Commission (the Commission), a component unit of the Commonwealth of Pennsylvania, as of and for the years ended May 31, 2020 and 2019, and the related notes to the financial statements, which collectively comprise the Commission's basic financial statements, as listed in the table of contents.

Management's Responsibility for the Financial Statements

The Commission's management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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MITCHELL TITUS

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Commission as of May 31, 2020 and 2019, and the changes in its financial position and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As more fully explained in Note 9, the Commission has committed to making significant payments under an Amended Lease and Funding Agreement as required under the terms of Acts 44 and 89. The Commission's ability to make such payments is dependent on its continuing capability to issue bonds to fund such payments and ultimately to raise tolls sufficient to repay its bonded debt and current lease payments. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, the Schedule of Commission's Proportionate Share of Net Pension Liability – Pennsylvania State Employees' Retirement System – Pension Fund, the Schedule of Commission's Contributions – Pennsylvania State Employees' Retirement System – Pension Fund, the Schedule of Changes in the Commission's Net OPEB Liability and Related Ratios, and Schedule of Commission Contributions to the Other Postemployment Welfare Plan Program on pages 4 through 20 and pages 106 through 110 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

MITCHELL TITUS

Other Information

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Commission's basic financial statements. The Section Information on pages 111 through 124 is presented for purposes of additional analysis and is not a required part of the basic financial statements.

The Section Information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Section Information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Mitchell & Titus, LLP

September 8, 2020

The management of the Pennsylvania Turnpike Commission (hereinafter referred to as the Commission) offers this narrative overview and analysis of the Commission's financial activities for the years ended May 31, 2020 and 2019, which should be read in conjunction with the Commission's basic financial statements.

Overview of the Basic Financial Statements

This Management's Discussion and Analysis (MD&A) is intended to serve as an introduction to the Commission's basic financial statements. While the Commission is considered a component unit of the Commonwealth of Pennsylvania (Commonwealth), it is also an enterprise fund. Therefore, the Commission's financial statements are presented in a manner similar to a private-sector business and have been prepared according to accounting principles generally accepted in the United States of America (GAAP). All of the current year's revenues are recorded when earned and expenses are recorded as they are incurred, regardless of when the cash is received or disbursed.

The statements of net position present information on all of the Commission's assets and deferred outflows of resources, liabilities and deferred inflows of resources, with the differences being reported as net position. Over time, increases or decreases in net position serve as a relative indicator of the change in financial position of the Commission.

The statements of revenues, expenses, and changes in net position show the result of the Commission's total operations during the fiscal year and reflect both operating and nonoperating activities and capital contributions. Changes in net position (increases or decreases) reflect current year activities and the impact on the overall financial position of the Commission.

The statements of cash flows provide a detailed analysis of all sources and uses of cash. The direct method of cash flows is presented, along with a reconciliation of operating income to net cash provided by operating activities. The statements of cash flows are divided into the following activities sections – operating, investing, capital and related financing, and noncapital financing.

Notes to the basic financial statements contain information and offer explanations to the basic financial statements. The notes are intended to assist the reader in understanding the Commission's basic financial statements.

Financial Analysis

Comparative Condensed Statements of Net Position

	May 31		
	2020	**2019**	**2018**
		(In Thousands)	
Assets and deferred outflows of resources			
Current assets	$ 1,437,182	$ 1,729,355	$ 1,502,874
Noncurrent investments	1,219,940	995,525	708,304
Capital assets, net of accumulated depreciation	6,410,001	6,139,998	6,016,996
Other assets	32,521	33,823	168,267
Total assets	9,099,644	8,898,701	8,396,441
Total deferred outflows of resources	633,160	621,105	533,478
Total assets and deferred outflows of resources	9,732,804	9,519,806	8,929,919
Liabilities and deferred inflows of resources			
Current liabilities	1,181,489	1,367,934	921,771
Debt, net of unamortized premium	14,383,020	13,591,404	12,956,241
Net pension/OPEB liability	331,034	398,755	329,112
Other noncurrent liabilities	355,661	250,097	197,627
Total liabilities	16,251,204	15,608,190	14,404,751
Total deferred inflows of resources	172,748	153,857	163,930
Total liabilities and deferred inflows of resources	16,423,952	15,762,047	14,568,681
Net position			
Net investment in capital assets	(903,089)	(623,209)	(250,112)
Restricted for construction purposes	411,313	331,065	260,524
Restricted for debt service	42,619	51,536	43,954
Unrestricted	(6,241,991)	(6,001,633)	(5,693,128)
Total net position	$ (6,691,148)	$ (6,242,241)	$ (5,638,762)

The Commission's total net position decreased $448.9 million and $603.5 million for the fiscal years ended May 31, 2020 and 2019, respectively. The large decreases in net position in both fiscal years were mostly due to the requirements of Act 44, Act 89 and the Amended Lease and Funding Agreement (Amended Funding Agreement) between the Commission and Pennsylvania Department of Transportation (PennDOT) and costs associated with the related debt. Please refer to Note 9, Commitments and Contingencies, of the financial statements and to the Events That Will Impact Financial Position section of this MD&A for additional information regarding Act 44, Act 89 and the Amended Funding Agreement between the Commission and PennDOT. See also Note 7, Debt, in reference to the related debt. Additionally, as stated in Note 2, the Commission implemented Governmental Accounting Standards Board (GASB) Statement No. 75, which reduced net position by $147.7 million for the fiscal year ended May 31, 2019.

Restricted net position is restricted for construction projects and debt service as defined in Trust Indentures and applicable bond issue official statements.

Financial Analysis *(continued)*

Comparative Condensed Statements of Net Position *(continued)*

The Commission's total assets and deferred outflows of resources increased by $213.0 million in fiscal year 2020. This 2020 increase is mostly related to an increase in capital assets of $270.0 million. This increase is offset by a decrease in cash and investments of $64.2 million. The increase in capital assets is mostly related to capital asset additions of $652.6 million, offset by $382.1 million of depreciation expense. The decrease in cash and investments is the result of a drop in revenues in the fourth quarter due to the COVID-19 pandemic plus cash defeasances of certain subordinate bonds in May 2020. For additional information, see Note 4, Cash and Investments, Note 5, Capital Assets, and Note 7, Debt.

The Commission's total assets and deferred outflows of resources increased by $589.9 million in fiscal year 2019. This 2019 increase is mostly related to increases in current investments of $335.7 million and noncurrent investments of $287.2 million. The increase in total investments is primarily due to unspent proceeds related to Oil Franchise Tax Senior and Mainline Senior bond issuances. For additional information, see Note 4, Cash and Investments, and Note 7, Debt.

Total liabilities and deferred inflows of resources increased by $661.9 million in fiscal year 2020 and by $1,193.4 million in fiscal year 2019. The increases for both fiscal year 2020 and fiscal year 2019 were mainly related to the issuance of senior debt and subordinate debt. In addition, in fiscal year 2019, due to pending litigation, the Commission accrued scheduled payments to PennDOT in accordance with Act 44, Act 89, and the Amended Funding Agreement. See Note 7, Debt, for additional information regarding the new issuances of debt. Please refer to Note 9, Commitments and Contingencies, of the financial statements and to the Events That Will Impact Financial Position section of this MD&A for additional information regarding Act 44, Act 89 and the Amended Funding Agreement between the Commission and PennDOT.

Financial Analysis *(continued)*

Comparative Condensed Statements of Revenues, Expenses, and Changes in Net Position

	Year ended May 31		
	2020	**2019**	**2018**
		(In Thousands)	
Operating			
Operating revenues	$ 1,283,783	$ 1,336,605	$ 1,201,274
Cost of services	(533,931)	(509,753)	(494,742)
Depreciation	(382,088)	(384,104)	(379,401)
Operating income	367,764	442,748	327,131
Nonoperating revenues (expenses)			
Investment earnings	90,345	83,072	18,809
Other nonoperating revenues	22,693	22,572	22,303
Act 44 payments to PennDOT	(450,000)	(450,000)	(450,000)
Capital assets transferred to Commonwealth	(294)	(162,982)	-
Interest and bond expense	(652,901)	(620,584)	(566,137)
Nonoperating expenses, net	(990,157)	(1,127,922)	(975,025)
Loss before capital contributions	(622,393)	(685,174)	(647,894)
Capital contributions	173,486	229,386	207,804
Decrease in net position	(448,907)	(455,788)	(440,090)
Net position at beginning of year, before restatement	(6,242,241)	(5,638,762)	(5,198,672)
Cumulative effect of change in accounting principle	-	(147,691)	-
Net position at beginning of year, as restated	(6,242,241)	(5,786,453)	(5,198,672)
Net position at end of year	$ (6,691,148)	$ (6,242,241)	$ (5,638,762)

For the fiscal years ended May 31, 2020 and 2019, operating and nonoperating revenues totaled $1,396.8 million and $1,442.3 million, respectively, while operating and nonoperating expenses totaled $2,019.2 million and $2,127.4 million, respectively.

Total operating and nonoperating revenues for fiscal year 2020 were $45.5 million or 3.2% lower than fiscal year 2019. This decrease in revenue was the result of the drastic decrease in traffic due to the COVID-19 pandemic. Vehicle transactions during the fourth quarter of fiscal year 2020 decreased by more than 45.0% compared to the same period of the prior year. The decrease in revenue from this traffic decline was offset with the January 2020 toll increase of 6.0% for cash, E-ZPass and Toll By Plate customers, as well as the full year impact of the January 2019 toll increase of 6.0% for cash, E-ZPass and Toll By Plate customers. Fiscal year 2020 total vehicle transactions were down approximately 11.3% compared to fiscal year 2019.

Financial Analysis *(continued)*

Comparative Condensed Statements of Revenues, Expenses, and Changes in Net Position *(continued)*

Total operating and nonoperating revenues for fiscal year 2019 were $199.9 million, or 16.1% higher than fiscal year 2018. This increase in revenue was mainly related to an $130.4 million increase in net fare revenues resulting from a January 2019 toll increase of 6.0% for cash, E-ZPass and Toll By Plate customers, as well as the full year impact of the January 2018 toll increase of 6.0% for both cash and E-ZPass customers. Total traffic volumes were also up slightly, 2.0%, in fiscal year 2019 compared to fiscal year 2018. In addition, investment earnings increased $64.3 million due to a positive change in fair value of fixed-income investments, which was the result of decreasing U.S. Treasury rates during fiscal year 2019.

Total operating and nonoperating expenses for fiscal year 2020 were $108.2 million lower than fiscal year 2019, primarily due to a decrease in capital assets transferred to the Commonwealth of $162.7 million.

Total operating and nonoperating expenses for fiscal year 2019 were $237.1 million higher than fiscal year 2018, primarily due to an increase in capital assets transferred to the Commonwealth of $163.0 million. In addition, interest and bond expenses increased $54.4 million related to the increase in debt (see Note 2, Debt).

Capital contributions decreased by $55.9 million in fiscal year 2020 primarily due to a $47.9 million decrease in Federal reimbursements and an $8.0 million reduction in Oil Company Franchise Tax revenues. Capital contributions increased by $21.6 million in fiscal year 2019 primarily due to a $22.4 million increase in Federal reimbursements (see Note 2).

Capital Assets and Debt Administration

Capital Assets

Capital assets consist of land and intangible assets (right-of-way easements), buildings, improvements, equipment, infrastructure, and assets under construction. Infrastructure assets are typically items that are immovable such as highways, bridges and tunnels. The Commission's investment in capital assets as of May 31, 2020 amounted to $13.0 billion of gross asset value with accumulated depreciation of $6.6 billion, leaving a net book value of $6.4 billion. The net book value of capital assets as of May 31, 2019 was $6.1 billion. Capital assets represented 65.9% and 64.5% of the Commission's total assets and deferred outflows of resources as of May 31, 2020 and 2019, respectively.

Assets under construction at the end of fiscal year 2020 were $1,788.7 million, which was $298.5 million more than in fiscal year 2019. Assets under construction at the end of fiscal year 2019 were $1,490.2 million, which was $27.5 million less than in fiscal year 2018. In fiscal year 2020, $322.3 million of constructed capital assets were completed, which was $340.5 million less than the $662.8 million of constructed capital assets completed in fiscal year 2019. In addition to constructed capital assets, the Commission had capital asset additions of approximately $31.7

Financial Analysis *(continued)*

Capital Assets and Debt Administration *(continued)*

Capital Assets (continued)

million and $35.3 million in fiscal years 2020 and 2019, respectively. In fiscal years 2020 and 2019, these additions related to purchases and capital contributions.

A high priority for the Commission is the ongoing full depth roadway total reconstruction of the east/west Turnpike Mainline and Northeast Extension. This work includes the reconstruction and widening of the roadway, the widening of the median, replacement of both mainline and overhead bridges as well as many safety enhancements. To date, approximately 144 miles of total reconstruction have been completed. Currently, approximately seven miles are in construction and approximately 82 miles are in design. Also, the Commission completed six miles of brand new roadway and 51 miles of roadway resurfacing during fiscal year 2020, helping to maintain a quality-riding surface with a Turnpike System-wide median IRI (International Roughness Index) of 71, which is rated as good. The Commission also completed additional cashless tolling conversions at two different locations on the system and one service plaza truck parking expansion.

The Commission constructed five new bridges, completely replaced six aging original bridges with new bridges, redecked or rehabilitated another eight bridges, painted four bridges, constructed one new culvert and extended another five culverts. Of the Commission's bridges, 2.3% are rated structurally deficient which is below the national average of 6.8%. All 26 bridges currently rated structurally deficient are either in construction or design for rehabilitation.

The Commission also constructed one new noise wall and three new retaining walls in fiscal year 2020.

Facility projects continue to focus on environmental and safety compliance, and on the maintenance and repair of existing buildings including HVAC, electrical and plumbing systems based on deficiencies identified during facility condition assessments. The construction for a new Southern Beltway Maintenance Facility is currently underway and is scheduled to be completed in November 2020. The design for the Eastern Training Facility is scheduled to be completed in September 2020 with construction to begin in the late fall of 2020. In addition, the Devault Maintenance Facility Reconstruction is currently under design and is slated for construction in the spring of 2021.

Through collaboration with the Department of General Services and other Commonwealth agencies, the Commission has implemented a utility bill management system, "EnergyCap," to provide effective utility bill data collection and analytics for electricity and natural gas utility usage at Commission facilities, and to facilitate energy procurement activities that reduce energy costs. The Commission continues to utilize alternative fuels such as the public CNG Fueling Station at New Stanton Service Plaza and electric vehicle (EV) charging stations at Oakmont, New Stanton, Bowmansville, Peter J. Camiel and King of Prussia service plazas.

Financial Analysis *(continued)*

Capital Assets and Debt Administration *(continued)*

Capital Assets (continued)

The Mon/Fayette Expressway is open to traffic from the Pennsylvania/West Virginia line to PA 51 in Jefferson Hills Borough, a distance of 53 miles. The preliminary design for the remainder of the Mon/Fayette Expressway project, extending from PA Route 51 to Interstate Route 376 in Pittsburgh, has been completed. The current estimates to complete the final 14 miles of the Mon/Fayette Expressway to Interstate Route 376 are in excess of $2.0 billion. Limited funding provided through Act 89 will be used to advance this project.

The Southern Beltway is a series of three independent projects that extend from the Mon/Fayette Expressway near Finleyville to Interstate 376 (I-376) at the Pittsburgh International Airport. One project constructed as part of the Southern Beltway, a six-mile section of toll road in Allegheny County that connects I-376 to U.S. Route 22 (U.S. 22), is in operation. The project from U.S. 22 to Interstate 79 (I-79) has started construction with expected completion in late 2021. The project from I-79 to Mon/Fayette Expressway is currently in the final design phase. When completed, the entire Southern Beltway will utilize cashless tolling.

The Commission has no legal obligation to complete the unfinished portions of the Mon/Fayette Expressway and Southern Beltway projects at this time.

The Commission completed the first of three phases of its Pennsylvania Turnpike/I-95 Interchange Project in September 2018. The main objectives of the Interchange Project are to improve the linkage between I-95 and the Turnpike Mainline to create continuity in the interstate system, relieve congestion on local roads which are currently used by travelers to make the connection between I-95 and the Turnpike Mainline, create additional capacity on the Turnpike Mainline and I-95 to accommodate the transfer of traffic from the local roadway system, and improve travel times through the interchange area.

The first phase of the Interchange Project included preparatory work and construction of a portion of the interchange between I-95 and the Turnpike Mainline, including northbound I-95 to the eastbound Turnpike Mainline and westbound Turnpike Mainline to southbound I-95. This phase included construction of a new mainline toll plaza and a cashless tolling plaza westbound, which opened in January 2016. This first phase of the Interchange Project was completed and open to traffic in September 2018. The portion of the Turnpike Mainline from the Interchange Project eastward to the Delaware River Bridge in Bucks County has been redesignated as Interstate 95. The second phase of the Interchange Project will include the completion of the reconstruction and widening of the remaining interchange connectors. The third phase will be the construction of a new wider bridge over the Delaware River, replacing the existing bridge. Funding for construction of the first phase was included in the Capital Plan. Funding for the second and third phases is not included in the Capital Plan.

The above paragraphs describe the changes in capital assets occurring during the fiscal years ended May 31, 2020 and 2019. Please refer to the capital assets section in the notes to the financial statements (Note 5) for schedules summarizing changes in capital assets.

Financial Analysis *(continued)*

Capital Assets and Debt Administration *(continued)*

Debt Administration – Mainline

In June 2018, the Commission issued $182,455,000 2018 Series A-1 Senior Revenue Bonds at a variable rate with a maturity date of December 1, 2023. The 2018 Series A-1 Senior Revenue Bonds were issued primarily for the current refunding of the December 1, 2018 maturity of the Commission's 2013 Series A Senior Revenue Bonds ($76,075,000); the current refunding of the December 1, 2018 maturity of the Commission's 2014 Series B-1 Senior Revenue Bonds ($65,000,000); the current refunding of the December 1, 2018 maturity of the Commission's 2016 Series A-2 Senior Revenue Bonds ($40,590,000); and for paying the costs of issuing the 2018 Series A-1 Senior Revenue Bonds.

In June 2018, the Commission issued $307,935,000 2018 Series A-2 Senior Revenue Bonds at a fixed rate with a maturity date of December 1, 2048. The 2018 Series A-2 Senior Revenue Bonds were issued to finance the cost of various capital expenditures set forth in the Commission's Ten-Year Capital Plan, including but not limited to the reconstruction of roadbed and roadway, the widening, replacing and redecking of certain bridges and/or rehabilitation of certain interchanges and paying the costs of issuing the 2018 Series A-2 Senior Revenue Bonds.

In November 2018, the Commission issued $141,200,000 2018 Series B Senior Revenue Bonds at a variable rate with a maturity date of December 1, 2023. The 2018 Series B Senior Revenue Bonds were issued primarily for the current refunding of the December 1, 2020 maturity of the Commission's 2017 Series B-1 Senior Revenue Bonds ($40,000,000), which were issued as a Direct Placement; the current refunding of the December 1, 2021 maturity of the Commission's 2017 Series B-2 Senior Revenue Bonds ($100,320,000) which were issued as a Direct Placement; and paying the costs of issuing the 2018 Series B Senior Revenue Bonds.

In November 2018, the Commission issued, as a Direct Borrowing, $45,000,000 2018 EB-5 Loan (Second Tranche) at a fixed rate with a maturity date of November 13, 2023. The Commission is borrowing this money to fund a portion of the costs of certain capital projects included in the Commission's current Ten-Year Capital Plan and for paying the costs of issuing the 2018 EB-5 Loan.

In February 2019, the Commission issued $84,365,000 2019 First Series Senior Revenue Bonds at a fixed rate with a maturity date of December 1, 2033. The 2019 First Series Senior Revenue Bond were issued primarily for the current refunding of the Commission's 2017 Series C Senior Revenue Bonds ($103,330,000), which were issued as a Direct Placement, and paying the costs of issuing the 2019 First Series Senior Revenue Bonds.

In May 2019, the Commission cash defeased the December 1, 2021 maturity of the Commission's 2012 Series A Senior Revenue Bonds ($4,525,000).

In May 2019, the Commission cash defeased the December 1, 2021 maturity of the Commission's 2011 Series A Senior Revenue Bonds ($16,725,000).

Financial Analysis *(continued)*

Capital Assets and Debt Administration *(continued)*

Debt Administration – Mainline (continued)

In June 2019, the Commission issued $139,815,000 of 2019 Second Series Senior Revenue Bonds at a variable rate with a maturity date of December 1, 2038. The 2019 Second Series Senior Revenue Bonds were issued to refund a portion of the 2013 Series B Senior Revenue Bonds ($100,000,000), 2014 Series B-1 Senior Revenue Bonds ($39,150,000), and to pay the cost of issuing the 2019 Second Series Senior Revenue Bonds.

In June 2019, the Commission issued $722,970,000 of 2019 Series A Subordinate Revenue Bonds at a fixed rate with a maturity date of December 1, 2049. The 2019 Series A Subordinate Revenue Bonds were issued primarily to finance a portion of the cost of making payments to PennDOT in accordance with Act 44 and Act 89 and paying the cost of issuing the 2019 Series A Subordinate Revenue Bonds.

In August 2019, the Commission issued $341,325,000 of 2019 Series A Senior Revenue Bonds at a fixed rate with a maturity date of December 1, 2049. The 2019 Series A Senior Revenue Bonds were issued to finance the cost of various capital expenditures set forth in the Commission's Ten-Year Capital Plan, including but not limited to the reconstruction of roadbed and roadway, the widening, replacing and redecking of certain bridges and/or rehabilitation of certain interchanges and paying the costs of issuing the 2019 Series A Senior Revenue Bonds.

In September 2019, the Commission issued $179,815,000 of the 2019 Forward Delivery Series Senior Revenue Bonds at a fixed rate with a maturity date of December 1, 2025. The 2019 Forward Delivery Series Senior Revenue Bonds were issued primarily for the current refunding of the 2009 Series B Senior Revenue Bonds ($190,080,000) and to pay the cost of issuing the 2019 Forward Delivery Series Senior Revenue Bonds.

In November 2019, the Commission issued, as a Direct Borrowing, $52,000,000 2019 EB-5 Loan (Third Tranche) at a fixed rate with a maturity date of November 5, 2024. The Commission is borrowing this money to fund a portion of the costs of certain capital projects included in the Commission's current Ten-Year Capital Plan and for paying the costs of issuing the 2019 EB-5 Loan.

In November 2019, the Commission issued $86,730,000 of 2019 First Series Subordinate Revenue Refunding Bonds (Federally Taxable) at a fixed rate with a maturity date of December 1, 2042. The 2019 First Series Subordinate Revenue Refunding Bonds were issued to provide funds for refunding a portion of the Commission's 2010 Series C-1 Subordinate Revenue Bonds ($1,540,000), 2011 Series B Subordinate Revenue Bonds ($40,130,000), 2012 Series A Subordinate Revenue Bonds ($25,910,000), 2012 Series B Subordinate Revenue Bonds ($12,685,000) and for paying the cost of issuing the 2019 First Series Subordinate Revenue Refunding Bonds.

Financial Analysis *(continued)*

Capital Assets and Debt Administration *(continued)*

Debt Administration – Mainline (continued)

In November 2019, the Commission issued $151,130,000 of 2019 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds (Federally Taxable) at a fixed rate with a maturity date of December 1, 2043. The 2019 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds were issued to provide funds for refunding a portion of the Commission's 2010 Series B-1 Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($13,780,000), 2011 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($23,340,000), 2012 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($28,610,000), 2012 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($35,270,000), and 2013 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($39,765,000) and for paying the cost of issuing the 2019 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds.

In January 2020, the Commission issued, as a Direct Borrowing, $36,500,000 2020 EB-5 Loan (Fourth Tranche) at a fixed rate with a maturity date of January 21, 2025. The Commission is borrowing this money to fund a portion of the costs of certain capital projects included in the Commission's current Ten-Year Capital Plan and for paying the costs of issuing the 2020 EB-5 Loan.

In January 2020, the Commission issued $234,320,000 of 2020 First Series Senior Revenue Bonds (Federally Taxable) at a fixed rate with a maturity date of December 1, 2043. The 2020 First Series Senior Revenue Bonds were issued to refund a portion of the 2012 Series A Senior Revenue Bonds ($99,380,000), 2013 Series C Senior Revenue Bonds ($115,580,000), and to pay the cost of issuing the 2020 First Series Senior Revenue Bonds.

In February 2020, the Commission issued $134,310,000 of 2020 First Series Subordinate Revenue Refunding Bonds (Federally Taxable) at a fixed rate with a maturity date of December 1, 2043. The 2020 First Series Subordinate Revenue Refunding Bonds were issued to provide funds for refunding a portion of the Commission's 2010 Series B-1 Subordinate Revenue Bonds ($11,285,000), 2011 Series B Subordinate Revenue Bonds ($3,820,000), 2012 Series A Subordinate Revenue Bonds ($29,555,000), 2012 Series B Subordinate Revenue Bonds ($29,240,000), 2013 Series A Subordinate Revenue Bonds ($28,555,000), 2013 Series B-1 Subordinate Revenue Bonds ($18,200,000), 2013 Series B-3 Subordinate Revenue Bonds ($10,215,000) and for paying the cost of issuing the 2020 First Series Subordinate Revenue Refunding Bonds.

Financial Analysis *(continued)*

Capital Assets and Debt Administration *(continued)*

Debt Administration – Mainline (continued)

In February of 2020, the Commission issued $92,750,000 of 2020 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds (Federally Taxable) at a fixed rate with a maturity of December 1, 2043. The 2020 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds were issued to provide funds for refunding a portion of the Commission's 2010 Series B-1 Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($8,790,000), 2011 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($25,000), 2012 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($1,805,000), 2012 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($15,230,000), 2013 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($20,330,000), 2013 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($38,080,000) and for paying the cost of issuing the 2020 First Series Motor License Fund-Enhanced Subordinate Revenue Refunding Bonds.

In May 2020, the Commission cash defeased the June 1, 2020 maturity of the Commission's 2008 Series B Subordinate Revenue Bonds ($7,595,000), 2016 First Series Subordinate Revenue Refunding Bonds ($42,020,000), and 2017 Series B-2 Subordinate Revenue Bonds ($210,000).

Debt Administration – Oil Franchise Tax

In June 2018, the Commission issued $231,385,000 2018 Series A Oil Franchise Tax Senior Revenue Bonds at a fixed rate with a maturity date of December 1, 2048. The 2018 Series A Oil Franchise Tax Senior Revenue Bonds were issued to finance the costs of various capital expenditures for the Turnpike System as set forth in the Commission's current or any prior Independently Funded Capital Plan, including but not limited to, the funding of capital expenditures related to the Southern Beltway or the Mon-Fayette Expressway and for paying the costs of issuing the 2018 Series A Oil Franchise Tax Senior Revenue Bonds.

In June 2018, the Commission issued $210,480,000 2018 Series B Oil Franchise Tax Subordinate Revenue Bonds at a fixed rate with a maturity date of December 1, 2048. The 2018 Series B Oil Franchise Tax Subordinate Revenue Bonds were issued to provide funds to finance the costs of capital expenditures related to the Southern Beltway or the Mon-Fayette Expressway, funding necessary reserves or similar funds to the extent required for such financing and for paying the costs of issuing the 2018 Series B Oil Franchise Tax Subordinate Revenue Bonds.

Debt Administration – Motor License Registration Fee

In March 2019, the Commission cash defeased the July 15, 2030 maturity of the Commission's 2005 A Motor License Registration Fee Revenue Bonds ($9,000,000).

Financial Analysis *(continued)*

Capital Assets and Debt Administration (continued)

The preceding paragraphs describe debt activity occurring during the fiscal years ended May 31, 2020 and 2019. Please refer to the debt and commitments and contingencies notes to the financial statements (Notes 7 and 9) for more detailed schedules and descriptions of long-term debt and swap activity.

Events That Will Impact Financial Position

On July 18, 2007, Act 44 was enacted, creating a "public-public partnership" between the Commission and PennDOT to provide funding for roads, bridges and transit throughout the Commonwealth. Subsequently, in order to, among other things, effectuate the provisions of Act 44 requiring the Commission to make substantial annual payments to PennDOT, as described below, the Commission and PennDOT entered into a Lease and Funding Agreement (the Act 44 Funding Agreement), incorporating many of the terms of Act 44. The term of the Act 44 Funding Agreement is fifty (50) years from October 14, 2007, its effective date.

The Act 44 Funding Agreement also granted the Commission the option to lease the portion of Interstate 80 (I-80) located in the Commonwealth from PennDOT upon, among other things, the approval of the Federal Highway Administration (FHWA) of the conversion of such portion into a toll road (the Conversion). The Conversion was not approved by FHWA and neither the Commission nor PennDOT appealed the decision. The Commission did not exercise its option to lease such portion of I-80, and the period during which the Commission could exercise its option under the Act 44 Funding Agreement lapsed on October 14, 2010 without the Commission effectuating the Conversion or having the ability to do so in the future. Under existing law, including Act 89, all legal, financial and operational responsibility for I-80 remains with PennDOT.

Pursuant to Act 44 and the Act 44 Funding Agreement, because the Conversion did not occur, the Commission was obligated to make scheduled annual payments of $450.0 million to PennDOT through 2057, payable in equal quarterly installments, with $200.0 million of the scheduled annual payment supporting road and bridge projects and $250.0 million supporting transit projects throughout the Commonwealth. See the following paragraphs for subsequent changes to such annual payments.

Events That Will Impact Financial Position *(continued)*

On November 25, 2013, Act 89 was enacted providing substantial revisions to the Commission's transportation funding obligations under Act 44 and authorized the Commission and PennDOT to immediately amend the Act 44 Funding Agreement to reflect the statutory provisions of Act 89. On April 4, 2014, the Commission and PennDOT executed Amendment Number One to the Lease and Funding Agreement (the *Act 89 Amendment* and together with the Act 44 Funding Agreement, the *Original Amended Funding Agreement*). In accordance with Act 89 and the Original Amended Funding Agreement, the Commission's aggregate annual payment to PennDOT for fiscal year 2014 through fiscal year 2022 is $450.0 million and, in accordance with Act 89, the Commission must pay at least $30.0 million of such amount from current revenues with the remainder expected to be funded by bonds issued under the Subordinate Revenue Indenture. Commencing in fiscal year 2023 through the term of the Amended Funding Agreement, the Commission's aggregate annual payment to PennDOT is $50.0 million, which amount shall be paid from then current revenues of the Commission. Since 2017, by policy, the Commission has been providing $50.0 million from current revenues to fund a portion of its annual payment to PennDOT. The Amended Funding Agreement terminates on October 14, 2057.

On July 31, 2018, the Commission and PennDOT executed Amendment Number Two to the Lease and Funding Agreement (the *Amendment* and together with the Original Amended Funding Agreement, the *Amended Funding Agreement*). Pursuant to the terms of the Amendment, the Commission and PennDOT agreed to extend the due date for the Commission's July 31, 2018 Annual Base Payment of $50.0 million and Annual Additional Payment of $62.5 million to October 31, 2018 or such later date in fiscal year ending June 30, 2019 as agreed to by the Commission and PennDOT. Further, the Commission and PennDOT agreed that the due date for any subsequent Annual Base Payment and Annual Additional Payment in the fiscal year ending June 30, 2019 could also be extended to any later date, not later than June 30, 2019, as agreed to by the Commission and PennDOT. By letter agreement from the Commission to PennDOT dated April 22, 2019, PennDOT confirmed and acknowledged that the due date for the Commission's July 31, 2018, October 31, 2018, January 31, 2019 and April 30, 2019 Annual Base Payments and Annual Additional Payments was extended to June 28, 2019 or such later date, not later than June 30, 2019, as the parties mutually agreed. On June 27, 2019, the Commission paid PennDOT $450.0 million, which represented the Commission's fiscal year 2019 Act 44 and Act 89 funding obligation.

The provisions of Act 44 and the Amended Funding Agreement require that the Commission provide a financial plan to the Secretary of the Budget of the Commonwealth on or before June 1 of each year that describes the Commission's proposed operating and capital expenditures, borrowings, liquidity and other financial management covenants and policies, estimated toll rates and all other revenue and expenditures for the ensuing fiscal year. Act 44 provides that the financial plan shall demonstrate that the operation of the Commission can reasonably be anticipated to result in having sufficient funds to make payments due to PennDOT pursuant to the Amended Funding Agreement and Act 44 during the ensuing and future fiscal years. It is important to note that the financial plan does not cover the funding needs for the Mon/Fayette or the Southern Beltway projects.

Events That Will Impact Financial Position *(continued)*

On June 1, 2020, the Commission submitted its financial plan for fiscal year 2021 (the Financial Plan). The Financial Plan incorporates the Commission's adopted Ten-Year Capital Plan, which provides for approximately $5.8 billion, net of federal reimbursements, in capital spending over the coming decade. The Ten-Year Capital Plan authorizes the Commission to undertake a number of capital improvements and to pursue new initiatives to maintain and improve the Turnpike System ensuring that it remains in a state of good repair. The Financial Plan indicates that in fiscal year 2020 the Commission was able to meet all of its financial covenants and obligations under Act 44 and Act 89 and progressed with its Ten-Year Capital Plan. Given the ongoing and adverse effects the COVID-19 pandemic is causing with both the national and state economies, the Commission plans to enhance the cost containment and efficiency measures it implemented within the past few years. Since mid-March 2020, the Commission has taken several steps to try and mitigate the impact of the COVID-19 pandemic. Specifically, the Commission has: 1) instituted a hiring freeze for both management and union positions; 2) reduced its capital spending by 25.0% to include Turnpike System protection projects only; 3) offered an early retirement program to management employees; 4) cut operating expenses; 5) implemented a work from home policy where feasible; 6) eliminated cash collection and in person contact in toll lanes; 7) delayed Act 44 payments until June 30, 2021 at the latest; and 8) lowered projected Fiscal Year 2021 debt service by $160.0 million through three cash defeasances (one relating to Senior Revenue Bonds and two relating to Subordinate Revenue Bonds); the final two defeasances are anticipated to occur on December 1, 2020. In response to the continuing adverse impacts of the pandemic and its resulting change in safe operating procedures, the Commissioners unanimously approved a measure on June 2, 2020 to lay off approximately 500 employees, primarily fare collection-related employees, effective June 18, 2020. The Commission will continue permanent Cashless Tolling operations. Additional measures include an anticipated increase of the planned January 2021 toll increase from 5.0% to 6.0% and would include an additional 45.0% increase for Toll By Plate customers on the ticket system and the Mon-Fayette Expressway. The proposed additional increase for Toll By Plate customers is necessary to mitigate the loss of revenue due to unpaid Toll By Plate transactions. The Commission also anticipates reducing the annual growth of its operating budget from the planned 4.0% annual level to 2.0% annually for Fiscal Years 2021-2023. With these adjustments and together with future toll increases, the Commission is expected to meet its financial covenants, Act 44 and Act 89 obligations, and capital needs during fiscal year 2021.

Events That Will Impact Financial Position *(continued)*

The Financial Plan for fiscal year 2021 reflects data contained in CDM Smith's Bring-down letter, dated May 29, 2020 (May 2020 Bring-down Letter) which can be found on the Commission's website. The Financial Plan for fiscal year 2021 along with the May 2020 Bring-down Letter include a downward revision to estimated toll revenue and traffic versus that which was contained in CDM Smith's 2018 Traffic and Revenue Forecast together with the bring-down letter dated April 2019 (a copy of which can be found on the Commission's website). As a result of COVID-19 pandemic mitigation efforts, CDM Smith was forecasting a 14.2% decline in the total number of fiscal year 2021 transactions and an 8.2% decrease in fiscal year 2021 annual net toll revenues versus estimates contained in the Financial Plan for fiscal year 2020. One assumption of the fiscal year 2021 Financial Plan was that the Commission would implement a toll increase in October 2020. However, because of the impacts of the COVID-19 pandemic, the Commission decided to delay the toll increase. As noted in the previous paragraph, the increase was approved for January 2021. Based on this delay in implementing the toll increase, a 10.6% decrease in net toll revenues versus estimates contained in the Financial Plan for fiscal year 2020 is now forecasted. The PTC will continue to monitor traffic transactions and at present, it is anticipated that the Commission will request a six-month update (December 2020) from CDM Smith to the May 2020 Bring-down Letter.

Fiscal year 2021 operating expenses are projected to be $426.0 million, which is 1.4% lower than the prior year budgeted amount of $432.0 million. The Financial Plan assumes the Commission will implement three years of below average growth (2.0%) in its annual operating budget to achieve its financial planning goals. After fiscal year 2023, the Financial Plan assumes the Commission will continue with controlled growth of 4.0% annual increases in operating expenses. Where possible, the Commission is actively managing its operations to limit the rate of growth in those operating costs directly under its control. However, significant portions (26.1%) of the Commission's operating budget are beyond its ability to control. These external cost drivers include the Commission's pension expense related to the State Employees Retirement System (SERS) and the Commission's projected expense related to the Pennsylvania State Police. With respect to specific operating expenses that are under the control of the Commission, such costs are projected to decrease nearly 1.0% in fiscal year 2021, while the Commission's Pennsylvania State Police expense is estimated to increase 4.5% ($2.5 million).

The Financial Plan also continues to include more conservative debt structuring assumptions, first included in the fiscal year 2017 Financial Plan, to reduce the Commission's interest costs. These include assuming 30-year terms versus 40-year terms to amortize principal more quickly, eliminating the planned use of capital appreciation bonds and other deferred interest products in the future, and assuming a portion of future debt issuances are based on level debt service assumptions rather than on escalating debt service. Finally, the Financial Plan maintains debt service coverage ratios for all toll revenue supported debt above policy level constraints.

Events That Will Impact Financial Position *(continued)*

The Financial Plan concludes that the Commission will continue to meet all of its indenture covenants and all of its other obligations through fiscal year 2057. However, as a forward-looking report, the Financial Plan makes certain assumptions, including future toll increases, to reach its conclusion that the financial covenants, Act 44 and Act 89 obligations and capital needs will be met beyond fiscal year 2021. Key among these assumptions is the Commission's ability to raise all tolls throughout the Turnpike System. The Financial Plan reflects the full year effects of the January 2020 toll increase and the partial year impacts of the originally proposed October 2020 toll increase. On July 21, 2020, the Commissioners voted unanimously to adopt a January 2021 toll increase of 6.0% along with the implementation of an additional 45.0% increase for Toll By Plate use on the ticket system and the Mon-Fayette Expressway, also effective in January 2021. The net effect of delaying the planned toll increase from October 2020 to the Commission's traditional January (2021) implementation date is an estimated $35.0 million decrease in the fiscal year 2021 estimated toll revenues.

The Financial Plan assumes the $450.0 million reduced level of funding obligations required by Act 44 and Act 89 through fiscal year 2022 and the $50.0 million funding level from fiscal year 2023 through fiscal year 2057. No assurances can be made by the Commission with respect to the assumptions made or conclusions reached in the Financial Plan. A complete copy of the Financial Plan is available on the Commission's website.

The preceding paragraphs provide a brief overview of Act 44 and Act 89 and their requirements. Please refer to the commitments and contingencies section in the Notes to the Financial Statements (Note 9) for additional information regarding the Commission's commitments under the Amended Funding Agreement. See also Note 15 for Subsequent Events. Furthermore, legislation may be introduced that could affect the Commission and its obligations pursuant to Act 44 and Act 89. However, the Commission cannot predict what other legislation may be considered by the General Assembly during the 2020-2021 or future legislative sessions or if any other proposals or initiatives may lead to the adoption of legislation that may affect the Commission.

Litigation

On March 15, 2018, several individuals, entities and associations involved in or related to the commercial trucking industry (the Trucking Plaintiffs) filed a class action lawsuit against the Commission, several individuals in their individual capacity and in their official capacity related to the Commission, an individual in her individual capacity and in her official capacity as Chair of the Commission and as Secretary of Transportation, and Governor Wolf, in both his individual and official capacity (the Defendants). The litigation was captioned *Owner Operator Independent Drivers Association, Inc. et al. v. Pennsylvania Turnpike Commission et al.*, No. 1:18-cv-00608-SHR (United States District Court for the Middle District of Pennsylvania) (the Lawsuit). The Trucking Plaintiffs alleged that Act 44, as amended by Act 89 (Act 44/89), violated the Commerce Clause and the right to travel under the U.S. Constitution, either facially or as applied, because the Commission improperly imposes Turnpike tolls beyond that which is necessary for the operation and maintenance of the Turnpike System and that the Commission expends toll revenues for purposes other than the operation and maintenance of the Turnpike System.

Events That Will Impact Financial Position *(continued)*

Litigation (continued)

The Lawsuit sought, among other things, the following injunctive remedies: (1) a permanent injunction enjoining the Commission from issuing any further bonds or incurring any additional debt for the purpose of making Act 44/89 payments; and (2) a permanent injunction prohibiting the Commission from using toll revenues to make payments on outstanding bonds issued to meet Act 44/89 obligations. Moreover, the lawsuit sought certain monetary damages including a refund of a portion of certain tolls allegedly imposed upon the Trucking Plaintiffs' use of the Turnpike System in excess of what was reasonably necessary to pay for the cost of operating and maintaining the Turnpike System, together with any legally applicable interest and other compensation.

The Commission along with all of the other Defendants vigorously defended Act 44/89 and the propriety of the Commission's imposition and use of the Turnpike toll revenues in court.

On April 4, 2019, Judge Yvette Kane of the United States District Court for the Middle District of Pennsylvania (the District Court) issued a decision in which the District Court determined that tolls assessed by the Commission do not unduly burden interstate commerce or interfere with the constitutional right to travel and the Trucking Plaintiffs' complaint failed to state a claim upon which relief may be granted for violations of the dormant Commerce Clause or the constitutional right to travel. Accordingly, the District Court granted the Defendants' motions to dismiss the Trucking Plaintiffs' complaint. On August 13, 2019, the United States Court of Appeals for the Third Circuit affirmed the decision of the District Court, and subsequently denied the Trucking Plaintiffs' petition both for a panel rehearing and an en banc rehearing.

On December 11, 2019, the Trucking Plaintiffs filed a petition for a writ of certiorari in the United States Supreme Court (the Supreme Court) asking the Supreme Court to review the decision of the Third Circuit. On January 27, 2020, the Supreme Court denied the Trucking Plaintiffs' petition for a writ of certiorari asking the Supreme Court to review the decision of the Third Circuit. *Owner Operator Independent Drivers Association, Inc. et al. v. Pennsylvania Turnpike Commission et al.,* cert. denied *(U.S. Jan 27, 2020) (No. 19-762).* This denial by the Supreme Court left undisturbed the favorable decision of the Third Circuit. The Trucking Plaintiffs did not file a petition for rehearing, as permitted by the Supreme Court rules, and the period to file such a petition expired on February 21, 2020. Thus, the class action lawsuit has concluded favorably to the Commission.

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Statements of Net Position
May 31, 2020 and 2019
(in thousands)

	2020	2019
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES		
Current assets		
Cash and cash equivalents	$ 198,564	$ 192,784
Investments	78,655	93,666
Accounts receivable - net of allowance of $229.6 million and $167.1 million as of May 31, 2020 and 2019, respectively	65,631	78,619
Accrued interest receivable	2,066	1,712
Inventories	24,685	19,290
Restricted current assets		
Cash and cash equivalents	707,766	807,132
Investments	341,586	521,567
Accounts receivable	3,180	11,047
Accrued interest receivable	15,049	3,538
Total current assets	1,437,182	1,729,355
Noncurrent assets		
Investments		
Investments	354,491	363,526
Investments restricted	865,449	631,999
Total investments	1,219,940	995,525
Capital assets not being depreciated		
Land and intangibles	425,643	405,643
Assets under construction	1,788,685	1,490,161
Capital assets being depreciated		
Buildings	983,739	981,115
Improvements other than buildings	151,066	150,306
Equipment	706,803	642,785
Infrastructure	8,946,265	9,044,067
Total capital assets before accumulated depreciation	13,002,201	12,714,077
Less: Accumulated depreciation	6,592,200	6,574,079
Total capital assets after accumulated depreciation	6,410,001	6,139,998
Other assets		
Prepaid bond insurance costs	5,875	4,212
Other assets	26,646	29,611
Total other assets	32,521	33,823
Total noncurrent assets	7,662,462	7,169,346
Total assets	9,099,644	8,898,701
Deferred outflows of resources from hedging derivatives	217,154	126,520
Deferred outflows of resources from refunding bonds	343,723	371,837
Deferred outflows of resources from pensions	37,837	76,692
Deferred outflows of resources from OPEB	34,446	46,056
Total deferred outflows of resources	633,160	621,105
Total assets and deferred outflows of resources	$ 9,732,804	$ 9,519,806

The accompanying notes are an integral part of these financial statements.

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Statements of Net Position *(continued)*
May 31, 2020 and 2019
(in thousands)

	2020	2019
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES		
Current liabilities		
Accounts payable and accrued liabilities	$ 517,240	$ 515,097
Act 44 and 89 payment due to PennDOT	-	450,000
Current portion of debt	573,880	325,205
Unearned Income	90,369	77,632
Total current liabilities	1,181,489	1,367,934
Noncurrent liabilities		
Debt, less current portion, net of unamortized premium of $1,143.1 million and $1,074.7 million in 2020 and 2019, respectively	14,383,020	13,591,404
Net pension liability	329,189	385,821
Net OPEB liability	1,845	12,934
Other noncurrent liabilities	355,661	250,097
Total noncurrent liabilities	15,069,715	14,240,256
Total liabilities	16,251,204	15,608,190
Deferred inflows of resources from service concession arrangements	106,450	115,266
Deferred inflows of resources from refunding bonds	11,634	5,845
Deferred inflows of resources from pensions	42,492	21,531
Deferred inflows of resources from OPEB	12,172	11,215
Total deferred inflows of resources	172,748	153,857
Total liabilities and deferred inflows of resources	16,423,952	15,762,047
NET POSITION		
Net investment in capital assets	(903,089)	(623,209)
Restricted for construction purposes	411,313	331,065
Restricted for debt service	42,619	51,536
Unrestricted	(6,241,991)	(6,001,633)
Total net position	$ (6,691,148)	$ (6,242,241)

The accompanying notes are an integral part of these financial statements.

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Statements of Revenues, Expenses, and Changes in Net Position
Years Ended May 31, 2020 and 2019
(in thousands)

	2020	2019
Operating revenues		
Fares - net of discounts of $9.8 million and $8.4 million for the years ended May 31, 2020 and 2019, respectively	$ 1,279,740	$ 1,327,031
Other	4,043	9,574
Total operating revenues	1,283,783	1,336,605
Operating expenses		
Cost of services	533,931	509,753
Depreciation	382,088	384,104
Total operating expenses	916,019	893,857
Operating income	367,764	442,748
Nonoperating revenues (expenses)		
Investment earnings	90,345	83,072
Other nonoperating revenues	22,693	22,572
Act 44 and Act 89 payments to PennDOT	(450,000)	(450,000)
Capital assets transferred to the Commonwealth	(294)	(162,982)
Interest and bond expense	(652,901)	(620,584)
Nonoperating expenses, net	(990,157)	(1,127,922)
Loss before capital contributions	(622,393)	(685,174)
Capital contributions	173,486	229,386
Decrease in net position	(448,907)	(455,788)
Net position at beginning of year, before restatement	(6,242,241)	(5,638,762)
Cumulative effect of change in accounting principle	-	(147,691)
Net position at beginning of year, as restated	(6,242,241)	(5,786,453)
Net position at end of year	$ (6,691,148)	$ (6,242,241)

The accompanying notes are an integral part of these financial statements.

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Statements of Cash Flows
Years Ended May 31, 2020 and 2019
(in thousands)

	2020	2019
CASH FLOWS FROM OPERATING ACTIVITIES		
Cash received from customer tolls and deposits	$ 1,275,558	$ 1,315,498
Cash payments for goods and services	(354,160)	(365,027)
Cash payments to employees	(161,761)	(173,267)
Cash received from other operating activities	16,572	18,605
Net cash provided by operating activities	776,209	795,809
CASH FLOWS FROM INVESTING ACTIVITIES		
Proceeds from sales and maturities of investments	4,179,110	5,035,883
Interest received on investments	35,659	31,302
Purchase of investments	(4,150,842)	(5,617,870)
Net cash provided by (used in) investing activities	63,927	(550,685)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES		
Capital grants received from other governments	5,845	59,858
Proceeds from Motor License Registration fees	28,000	28,000
Proceeds from Oil Company Franchise Tax	141,665	141,594
Construction and acquisition of capital assets	(659,425)	(662,544)
Proceeds from sale of capital assets	2,057	1,449
Payments for bond and swap expenses	(5,118)	(7,329)
Payments for cash defeasances	-	(34,505)
Payments for debt refundings	(574,829)	(425,315)
Payments for debt maturities	(109,150)	(104,280)
Interest paid on debt	(330,711)	(313,500)
Interest subsidy from Build America Bonds	10,533	20,998
Swap suspension payments received	2,443	6,825
Proceeds from debt issuances	1,073,553	1,325,956
Net cash (used in) provided by capital and related financing activities	(415,137)	37,207
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES		
Cash payments to PennDOT	(900,000)	-
Payments for bond and swap expenses	(8,636)	-
Payments for cash defeasances	(51,164)	-
Payments for debt refundings	(481,197)	-
Payments for debt maturities	(76,905)	(120,085)
Interest paid on debt	(285,859)	(278,337)
Proceeds from debt issuances	1,285,176	-
Net cash used in noncapital financing activities	(518,585)	(398,422)
Decrease in cash and cash equivalents	(93,586)	(116,091)
Cash and cash equivalents at beginning of year	999,916	1,116,007
Cash and cash equivalents at end of year	$ 906,330	$ 999,916

The accompanying notes are an integral part of these financial statements.

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Statements of Cash Flows *(continued)*
Years Ended May 31, 2020 and 2019
(in thousands)

	2020	2019
Reconciliation of operating income to net cash provided by (used in) operating activities		
Operating income	$ 367,764	$ 442,748
Adjustments to reconcile operating income to net cash provided by operating activities		
Depreciation	382,088	384,104
Change in operating assets and liabilities		
Accounts receivable	12,989	(10,114)
Inventories	(5,395)	(1,894)
Other assets	(7)	22
Deferred outflows of resources from pensions	38,855	(29,990)
Deferred outflows of resources from OPEB	11,610	(17,885)
Accounts payable and accrued liabilities	12,652	5,137
Net pension liability	(56,632)	55,825
Net OPEB liability	(11,089)	(28,796)
Other noncurrent liabilities	1,456	(1,307)
Deferred inflows of resources from pensions	20,961	(13,256)
Deferred inflows of resources from OPEB	957	11,215
Net cash provided by operating activities	$ 776,209	$ 795,809
Reconciliation of cash and cash equivalents to the statements of net position		
Cash and cash equivalents	$ 198,564	$ 192,784
Restricted cash and cash equivalents	707,766	807,132
Total cash and cash equivalents	$ 906,330	$ 999,916

Noncash Investing, Capital and Related Financing and Noncapital Financing Activities

The Commission recorded a net increase of $50.7 million and a net increase of $44.1 million in the fair value of its investments not reported as cash equivalents for the years ended May 31, 2020 and 2019, respectively.

The Commission recorded $57.7 million and $56.6 million for the amortization of bond premiums for the years ended May 31, 2020 and 2019, respectively.

The accompanying notes are an integral part of these financial statements.

Noncash Investing, Capital and Related Financing and Noncapital Financing Activities *(continued)*

As indicated in Note 7, the Commission refunded and cash defeased various bonds in both fiscal years 2020 and 2019. The fiscal year 2020 refundings and cash defeasances resulted in a $19.1 million reclassification from bond premiums (discounts) to deferred outflows of resources from refunding bonds and a $41.7 million reclassification from bond premiums (discounts) to deferred inflows of resources from refundings. The fiscal year 2019 refundings and cash defeasances resulted in a $1.2 million reclassification from bond premiums (discounts) to deferred outflows of resources from refunding bonds and a $0.6 million reclassification from bond premiums (discounts) to deferred inflows of resources from refundings. Additionally, the Commission recorded $40.7 million and $45.3 million in expenses for amortization of deferred outflows/inflows of resources from refunding bonds for the years ended May 31, 2020 and 2019, respectively.

The Commission recorded $0.3 million and $0.6 million in expenses for amortization of prepaid bond insurance costs for the years ended May 31, 2020 and 2019, respectively.

The Commission recorded an interest expense reduction of $3.4 million and $3.0 million for the years ended May 31, 2020 and 2019, respectively, related to GASB Statement No. 53 entries.

The Commission recognized total capital contributions of $173.5 million for the fiscal year ended May 31, 2020. Cash received of $175.5 million for fiscal year ended May 31, 2020 is reported in the capital and related financing activities of this statement. The $2.0 million difference between capital contributions and cash received is the result of a $7.8 million decrease in receivables related to these capital contributions and a $5.8 million noncash capital contribution related to capital assets provided by service plaza operators. The Commission recognized total capital contributions of $229.4 million for the fiscal year ended May 31, 2019. Cash received of $229.5 million for the fiscal year ended May 31, 2019 is reported in the capital and related financing activities of this statement. The $0.1 million difference between capital contributions and cash received is the result of a $5.9 million decrease in receivables related to these capital contributions and a $5.8 million noncash capital contribution related to capital assets provided by service plaza operators. The Commission entered into agreements with a food and fuel provider to totally reconstruct the service plazas; the service plaza operators provide the capital for the reconstruction in exchange for lower rental rates. See Note 2 for further discussion on capital contributions and Note 6 for further discussion on the service plazas.

During fiscal year 2020, the Commission transferred land with a book value of $0.3 million to the Pennsylvania Game Commission. The Commission did not transfer any capital assets to the Pennsylvania Game Commission during the fiscal year ended May 31, 2019.

The Commission constructed ramps to connect the Turnpike Mainline with I-95 as part of its I-95 Interchange Project (see the MD&A section of these financial statements for further discussion on this project). The ownership, of these ramp assets, was transferred to PennDOT when the project was completed and open to traffic in September 2018. The net book value of the ramp assets transferred to PennDOT during the fiscal year ended May 31, 2019 was $163.0 million. The Commission did not transfer any capital assets to PennDOT during the fiscal year ended May 31, 2020.

The accompanying notes are an integral part of these financial statements.

NOTE 1 FINANCIAL REPORTING ENTITY

Generally accepted accounting principles require government financial statements to include the primary government and its component units. Component units of a governmental entity are legally separate entities for which the primary government is considered to be financially accountable and for which the nature and significance of their relationship with the primary government are such that exclusion would cause the combined financial statements to be misleading. The primary government is considered to be financially accountable if it appoints a majority of an organization's governing body and is able to impose its will on that organization or there is a potential for the organization to provide specific financial benefits to or impose specific financial burdens on the primary government.

The Pennsylvania Turnpike Commission (the Commission) was created as an instrumentality of the Commonwealth of Pennsylvania (Commonwealth) on May 21, 1937, with powers to construct, operate, and maintain the Turnpike System and to issue Turnpike revenue bonds, repayable solely from tolls and other Commission revenues. The Commission is considered a component unit of the Commonwealth.

Based on the application of the criteria set forth by the Governmental Accounting Standards Board (GASB), the Commission has determined that it has no component units based on its review of GASB Statements No. 14, *The Financial Reporting Entity*, No. 39, *Determining Whether Certain Organizations are Component Units – an amendment of GASB Statement No. 14*, No. 61, *The Financial Reporting Entity: Omnibus – an amendment of GASB Statements No. 14 and No. 34*, and No. 80, *Blending Requirements for Certain Component Units – an amendment of GASB Statement No. 14*.

The Commission is composed of five members, one of whom is the Secretary of Transportation. The others are appointed by the Governor with the approval of two-thirds of the Senate.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The financial statements of the Commission have been prepared in conformity with accounting principles generally accepted in the United States of America (GAAP) as applied to government units. The GASB is the accepted standard-setting body for establishing governmental accounting and financial reporting principles. The more significant of the Commission's accounting policies are described in the following paragraphs:

<u>Basis of Accounting</u>

The Commission's basic financial statements are presented on the accrual basis of accounting.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Reclassifications

Certain amounts presented in the prior period have been reclassified to conform to the current year financial statement presentation.

Cash Equivalents

For purposes of the statements of cash flows, the Commission considers all highly liquid debt investment securities that mature within three months of acquisition to be cash equivalents.

Investments

Investments are stated at fair value with the exception of the following: money market investments are reported at cost which does not materially differ from fair value, certain nonparticipating contracts such as repurchase agreements and other agreements structured as repurchase agreements are reported at cost which does not materially differ from fair value and guaranteed investment contracts are stated at contract value. The Commission categorizes its fair value measurements within the fair value hierarchy established by GAAP. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs. See Note 4 for further discussion.

Accounts Receivable

Accounts receivable consist primarily of toll revenue receivables from customers and other E-ZPass agencies, fee revenue receivables from customers and reimbursement receivables from other governments. A reserve for uncollectible accounts receivable is established based on specific identification and historical experience.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Capital Assets

Capital assets consist of land and intangible assets (right-of-way easements), buildings, improvements, equipment, infrastructure, and assets under construction. Infrastructure assets are typically items that are immovable such as highways, bridges, and tunnels. Capital assets are stated at cost. Donated capital assets and capital assets received in a service concession arrangement are measured at acquisition value. Acquisitions of capital assets valued at $15,000 or greater are capitalized. Depreciation is computed using the straight-line method over the estimated useful lives of the assets. Intangible assets have an indefinite life and, thus, are not depreciated. The following lives are used:

Buildings	10 – 45 years
Improvements other than buildings	15 – 20 years
Equipment	3 – 40 years
Infrastructure	10 – 50 years

Inventories

Inventories are valued at average cost.

Debt Premium/Discount and Prepaid Insurance Costs

Debt premium/discount is being amortized using the effective interest rate method over the varying terms of the bonds issued. Prepaid bond insurance costs (incurred through bond issuances) are being amortized using the straight-line method over the varying terms of the bonds issued.

Unearned Income

Unearned income is primarily related to E-ZPass customer deposits. E-ZPass customers of the Commission are required to deposit funds in advance of anticipated travel. Since this money is collected prior to the customers' travel and revenue recognition, it is recorded as unearned income. The Commission also has unearned income related to microwave tower leases. The Commission had total unearned income of $90.9 million and $78.3 million for fiscal years ended May 31, 2020 and 2019, respectively. Unearned income recorded as current liabilities was $90.4 million and $77.6 million for the fiscal years ended May 31, 2020 and 2019, respectively. Unearned income recorded as other noncurrent liabilities was $0.5 million and $0.7 million for the fiscal years ended May 31, 2020 and 2019, respectively.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Accounting Estimates

The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual amounts may differ from those estimates.

Pensions

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Pennsylvania State Employees' Retirement System (SERS) and additions to / deductions from SERS' fiduciary net position have been determined on the same basis as they are reported by SERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Postemployment Benefits Other Than Pensions (OPEB)

For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the fiduciary net position of the Pennsylvania Turnpike Commission's Other Postemployment Welfare Plan Program (the Plan) and additions to / deductions from the Plan's fiduciary net position have been determined on the same basis as they are reported by the Plan. For this purpose, the Plan recognizes benefit payments when due and payable in accordance with the benefit terms. Investments are reported at fair value, except for money market investments, which are reported at cost.

Deferred Outflows/Inflows of Resources

The Statements of Net Position report separate sections for deferred outflows and deferred inflows of resources. These separate financial statement elements represent a consumption or acquisition of net position that applies to a future period(s) and so will not be recognized as an outflow or inflow of resources (expense/revenue) until then. The Commission has five items that qualify for reporting in these categories: deferred outflows from its hedging derivative instruments, deferred inflows from its service concession arrangements, deferred outflows/inflows from refunding bonds, deferred outflows/inflows related to pensions and deferred outflows/inflows related to other postemployment benefits.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Deferred Outflows/Inflows of Resources *(continued)*

The deferred outflows of resources related to hedging derivative instruments represent the cumulative change in their fair values. Deferred inflows from the Commission's service concession arrangements represent unamortized capital contributions from service plaza operators and the present value of minimum guaranteed rent payments. Deferred outflows/inflows from refundings are the result of differences in the carrying value of refunded debt and its reacquisition price. This amount is deferred and amortized over the shorter of the life of the refunded or refunding debt. Deferred outflows/inflows of resources related to pensions are described further in Note 8. The components of deferred outflows of resources and deferred inflows of resources, other than the difference between the projected and actual earnings on investments, are amortized into pension expense over a closed period, which reflects the weighted average remaining service life of all SERS members beginning the year in which the deferred amount occurs (current year). The annual difference between the projected and actual earnings on SERS investments is amortized over a five-year closed period beginning the year in which the difference occurs (current year). Deferred outflows/inflows of resources related to OPEB are described further in Note 11. Investment (gains)/losses are recognized in OPEB expense over a period of five years; economic/demographic (gains)/losses and assumption changes or inputs are recognized over the average remaining service life for all active and inactive members.

Net Position

GASB Statement No. 63 requires the classification of net position into three components – net investment in capital assets; restricted; and unrestricted. These classifications are defined as follows:

Net Investment in Capital Assets – This component of net position consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets. Deferred outflows of resources and deferred inflows of resources that are attributable to the acquisition, construction, or improvement of those assets or related debt are included.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Net Position *(continued)*

Restricted – This component of net position consists of restricted assets and deferred outflows of resources reduced by liabilities and deferred inflows of resources related to those assets. The restrictions would be imposed by:

- External parties such as creditors, grantors and contributors,
- Laws or regulations of other governments, or
- Restrictions imposed by law through constitutional provisions or enabling legislation.

Unrestricted – This component of net position consists of the net amount of the assets, deferred outflows of resources, liabilities, and deferred inflows of resources that are not included in the determination of net investment in capital assets or the restricted component of net position.

Operating Revenues

Revenues associated with operations of the Turnpike System are considered operating revenues. The principal operating revenues of the Commission are fare revenues from customers. Other operating revenues include service station, restaurant, property and other rental income, as well as revenue from various sponsorship agreements. Also included are electronic toll collection fees related to E-ZPass and Toll By Plate programs, as well as bad debt expense.

Fare Revenues

Fare revenues are recognized when vehicles exit the Turnpike System. For fiscal years 2020 and 2019, approximately 86.8% and 82.5%, respectively, of the fare revenues were realized through electronic toll collection. For fiscal years 2020 and 2019, approximately 13.2% and 17.5%, respectively, of the fare revenues were realized through cash or credit card collection.

During fiscal year 2016, the Commission implemented Toll By Plate (TBP), a license plate tolling system for customers without a valid E-ZPass. The TBP program offers cashless, nonstop travel at tolling points throughout the Turnpike System. This system utilizes high speed cameras over the roadway that capture license plate images as vehicles pass through the tolling point. The registered owner of the vehicle then receives a flat rate invoice in the mail. For fiscal years 2020 and 2019, approximately 2.8% and 1.1%, respectively, of the fare revenues were realized through TBP, which are included as a part of electronic toll collection.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Operating Revenues *(continued)*

Fare Revenues (continued)

Effective March 16, 2020, due to the COVID-19 pandemic, the Commission implemented all-electronic tolling across the system. With existing cameras on the entry lanes, the Commission was able to utilize the TBP system at the remaining tolling points.

Operating Expenses

Operating expenses relate directly to operating and maintaining the Turnpike System. The principal operating expenses of the Commission are cost of services and depreciation. Other expenses are considered nonoperating expenses.

Cost of Services

Cost of services includes wages and salaries, benefits, utilities, fuels, professional fees and services, PA State Police services, and purchased goods, including materials and supplies.

Utilization of Resources

When both restricted and unrestricted resources are available for use, it is the Commission's policy to use restricted resources first and then unrestricted resources as needed.

Nonoperating Revenues (Expenses)

Nonoperating revenues include net investment earnings and other miscellaneous revenues not associated with the operations of the Turnpike System. Nonoperating expenses include: Act 44 and Act 89 payments to PennDOT, capital assets transferred to the Commonwealth, interest and bond expenses, and other miscellaneous expenses not associated with the operations of the Turnpike System.

Act 44 and Act 89 Payments to PennDOT

The Commission and PennDOT entered into a Lease and Funding Agreement, as amended, as required under the terms of Act 44 and Act 89. See Note 9 for more information regarding Act 44 and Act 89.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Nonoperating Revenues (Expenses) *(continued)*

Capital Assets Transferred to the Commonwealth of Pennsylvania

During the fiscal year ended May 31, 2020, the Commission transferred land to the Pennsylvania Game Commission for impacts to grassland habitats resulting from highway projects. The book value of the land transferred was $0.3 million. The Commission did not transfer any capital assets to the Pennsylvania Game Commission during the fiscal year ended May 31, 2019.

The Commission constructed ramps to connect the Turnpike Mainline with I-95 as part of its I-95 Interchange Project (see the MD&A for further discussion on this project). The ownership, of these ramp assets, was transferred to PennDOT when the project was completed and open to traffic in September 2018. The net book value of the ramp assets transferred to PennDOT during the fiscal year ended May 31, 2019 was $163.0 million. The Commission did not transfer any capital assets to PennDOT during the fiscal year ended May 31, 2020.

Capital Contributions

Capital contributions include: Oil Company Franchise Tax revenues, Motor License Registration Fee revenues, grants from other governments for reimbursement of capital costs for various highway construction projects, capital assets received from other third parties and amortization of deferred inflows of resources for service concession agreements.

Oil Company Franchise Tax Revenues

The Commission receives 14% of the additional 55 mills of the Commonwealth's Oil Company Franchise Tax revenues pursuant to Act 26 established in 1991. The revenues totaled $133.8 million and $141.8 million for the fiscal years ended May 31, 2020 and 2019, respectively. These revenues are kept in a separate fund as required by the applicable bond indenture.

Motor License Registration Fee Revenues

The Commission received $28.0 million in registration fee revenue during each of the fiscal years ended May 31, 2020 and 2019 from the Commonwealth's Motor License Fund. These revenues are kept in a separate fund as required by the applicable bond indenture.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Capital Contributions *(continued)*

Reimbursements from Other Governments

The Commission receives grants from other governments for reimbursement of costs for various highway construction projects. During the fiscal years ended May 31, 2020 and 2019, the Commission recognized \$5.8 million and \$53.7 million, respectively, as capital contributions from the other governments. During each of the fiscal years 2020 and 2019, all of the reimbursements were received from the Federal government.

Other Capital Contributions

The Commission entered into contracts with a food and a fuel provider to totally reconstruct the service plazas. The service plaza operators provide the capital for the reconstruction in exchange for lower rental rates. The Commission recognized capital contribution revenues of \$5.8 million related to these agreements for each of the fiscal years ended May 31, 2020 and 2019. See Note 6 for further discussion on service plazas.

Adoption of Accounting Pronouncements

In June 2015, the GASB issued Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. Statement No. 75 addresses accounting and financial reporting for OPEB that is provided to the employees of state and local governmental employers. Statement No. 75 establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources, and expenses. The Commission adopted Statement No. 75 in these financial statements for its fiscal year ended May 31, 2019. It was not practical to determine the fiscal year 2018 beginning balance amounts of all deferred inflows of resources and all deferred outflows of resources related to OPEB, except for contributions made subsequent to the measurement date. The Commission recorded the cumulative effect of applying this statement as a restatement of beginning net position as of June 1, 2018 (the beginning of the financial statement period). Net position as of June 1, 2018 was decreased by \$146.8 million.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Adoption of Accounting Pronouncements *(continued)*

Additionally, SERS adopted Statement No. 75 for its fiscal year ended December 31, 2018 and was required to record its proportionate share of net OPEB liability. This restatement resulted in a reduction in SERS net position restricted for pensions as of January 1, 2018 (beginning of its fiscal year). The Commission recorded its proportionate share of this adjustment, as a restatement of beginning net position as of June 1, 2018 (the beginning of the financial statement period). Net position as of June 1, 2018 was decreased by $0.9 million.

In total, net position as of June 1, 2018 was decreased by $147.7 million. The effect on beginning balances for fiscal year 2018 was as follows:

Description	May 31, 2018 as Previously Reported	Beginning Balance Restatement	June 1, 2018 as Restated
		(in Thousands) *[Debits / (Credits)]*	
Statement of Net Position			
OPEB asset	$ 133,248	$ (133,248)	$ -
Deferred outflows of resources from OPEB	-	28,171	28,171
Net OPEB liability	-	(41,730)	(41,730)
GASB 75 effect on net pension liability	-	(884)	(884)
Net position	5,638,762	147,691	5,786,453

See the additional disclosures in Note 11 and the Required Supplementary Information as required by this Statement.

In November 2016, the GASB issued Statement No. 83, *Certain Asset Retirement Obligations*. The Commission adopted this Statement for its fiscal year ended May 31, 2019. The adoption of this Statement had no impact on the Commission's financial statements for fiscal year ending May 31, 2019.

In March 2017, the GASB issued Statement No. 85, *Omnibus 2017*. The Commission adopted this Statement for its fiscal year ended May 31, 2019. Statement No. 85 addresses a variety of topics including issues related to blending component units, goodwill, fair value measurement and application, and postemployment benefits (pensions and other postemployment benefits [OPEB]). See the Required Supplementary Information section for disclosures required by this statement.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Adoption of Accounting Pronouncements *(continued)*

In April 2018, the GASB issued Statement No. 88, *Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements*. The Commission adopted Statement No. 88 for its fiscal year ended May 31, 2019. See the updated disclosures in Note 7.

In June 2018, the GASB issued Statement No. 89, *Accounting for Interest Cost Incurred Before the End of a Construction Period*. The Commission adopted Statement No. 89 for its fiscal year ended May 31, 2019 on a prospective basis; therefore, no interest was capitalized in fiscal year 2019.

In May 2020, the GASB issued Statement No. 95, *Postponement of the Effective Dates of Certain Authoritative Guidance*. In accordance with the guidance, the Commission adopted Statement No. 95 immediately. The effective dates of the Accounting Pronouncements Not Yet Adopted have been updated as applicable.

Accounting Pronouncements Not Yet Adopted

In January 2017, the GASB issued Statement No. 84, *Fiduciary Activities*. The Commission is required to adopt Statement No. 84 for the fiscal year ending May 31, 2021.

In June 2017, the GASB issued Statement No. 87, *Leases*. The Commission is required to adopt Statement No. 87 for the fiscal year ending May 31, 2023.

In August 2018, the GASB issued Statement No. 90, *Majority Equity Interest – An Amendment of GASB Statements No. 14 and No. 61*. The Commission is required to adopt Statement No. 90 for the fiscal year ending May 31, 2021.

In May 2019, the GASB issued Statement No. 91, *Conduit Debt Obligations*. The Commission is required to adopt Statement No. 91 for the fiscal year ending May 31, 2023.

In January 2020, the GASB issued Statement No. 92, *Omnibus 2020*. The Commission is required to adopt Statement No. 92 for the fiscal year ending May 31, 2023.

In March 2020, the GASB issued Statement No. 93, *Replacement of Interbank Offered Rates*. The Commission is required to adopt Statement No. 93 for the fiscal year ending May 31, 2022.

In March 2020, the GASB issued Statement No. 94, *Public-Private and Public-Public Partnerships and Availability Payment Arrangements*. The Commission is required to adopt Statement No. 94 for the fiscal year ending May 31, 2024.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

<u>Accounting Pronouncements Not Yet Adopted</u> *(continued)*

In May 2020, the GASB issued Statement No. 96, *Subscription-Based Information Technology Arrangements*. The Commission is required to adopt Statement No. 96 for the fiscal year ending May 31, 2024.

In June 2020, the GASB issued Statement No. 97, *Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans – An Amendment of GASB Statements No. 14 and No. 84, and a Supersession of GASB Statement No. 32*. The Commission is required to adopt Statement No. 97 for the fiscal year ending May 31, 2023.

The Commission has not yet completed the various analyses required to estimate the financial statement impact of these new pronouncements.

NOTE 3 INDENTURE REQUIREMENTS AND RESTRICTIONS

The Commission's debt has been issued under the provisions of five separate Trust Indentures (collectively referred to as Indentures):

- A Senior Trust Indenture dated July 1, 1986, which was amended and restated as of March 1, 2001, as supplemented, between the Commission and U.S. Bank, N.A., as successor Trustee;
- An Oil Franchise Tax Trust Indenture, dated August 1, 1998, as supplemented, between the Commission and U.S. Bank, N.A., as successor Trustee;
- A Registration Fee Revenue Trust Indenture, dated August 1, 2005 between the Commission and U.S. Bank, N.A., as successor Trustee;
- A Subordinate Trust Indenture dated April 1, 2008, as supplemented, between the Commission and Wells Fargo Bank, N.A., as successor Trustee; and
- A Special Obligation Trust Indenture, dated September 1, 2014, between the Commission and U.S. Bank, N.A., as successor Trustee.

Accordingly, certain activities of the Commission are restricted by these Indentures.

NOTE 4 CASH AND INVESTMENTS

Following is a summary of cash and cash equivalents and investments by type:

	May 31, 2020	May 31, 2019
	(In Thousands)	
Cash and cash equivalent and investment types		
U.S. Treasuries	$ 1,316,725	$ 1,108,290
GNMA mortgages	1,168	1,339
Government agency securities	73,030	123,131
Municipal bonds	39,518	44,958
Corporate obligations	204,816	321,174
Total investment securities	1,635,257	1,598,892
Investment derivatives	4,924	11,866
Cash and cash equivalents	906,330	999,916
Total cash and cash equivalents and investments	$ 2,546,511	$ 2,610,674

Cash and Cash Equivalents

Cash and cash equivalents are held in various financial institutions. Cash and cash equivalents are comprised of demand deposits, money market funds and other highly liquid investments that mature within three months of acquisition. The demand deposits are secured under Pennsylvania Act 72 which secures public deposits in excess of the FDIC insurance limits. Cash equivalents consist of permitted investments in accordance with the Indentures as noted under cash equivalents and investment securities.

The following summary presents the Commission’s cash and cash equivalents:

	Bank Balance	Book Balance
	(In Thousands)	
May 31, 2020		
Demand deposits	$ 30,186	$ 32,494
Money market funds	809,903	809,903
Cash equivalents	63,933	63,933
Total cash and cash equivalents	$ 904,022	$ 906,330
May 31, 2019		
Demand deposits	$ 24,128	$ 24,678
Money market funds	860,659	860,659
Cash equivalents	114,579	114,579
Total cash and cash equivalents	$ 999,366	$ 999,916

NOTE 4 CASH AND INVESTMENTS *(continued)*

Cash Equivalents and Investment Securities

Following is a description of the valuation methodologies used for investment securities measured at fair value.

- For the fiscal years ended May 31, 2020 and 2019, U.S. Treasuries of $1,316.7 million and $1,108.3 million, respectively, categorized as Level 1 are valued using quoted market prices.

- For the fiscal years ended May 31, 2020 and 2019, GNMA mortgages of $1.2 million and $1.3 million, respectively, categorized as Level 2 are valued using models based on spreads of comparable securities.

- For the fiscal years ended May 31, 2020 and 2019, government agency securities of $73.0 million and $123.1 million, respectively, categorized as Level 2 are valued using various market and industry inputs. Callable agency-issued debt securities are valued by benchmarking model-derived prices to quoted market prices and trade data for identical or comparable securities. The fair value of agency mortgage pass-through pool securities is model-driven based on spreads of a comparable security. Collateralized mortgage obligations are valued using quoted market prices and trade data adjusted by subsequent changes in related indices for identical or comparable securities.

- For the fiscal years ended May 31, 2020 and 2019, municipal bonds of $39.5 million and $45.0 million, respectively, categorized as Level 2 are valued using recently executed transactions, market price quotations and pricing models that factor in, where applicable, interest rates, bond or credit default swap spreads and volatility.

- For the fiscal years ended May 31, 2020 and 2019, total corporate obligations were $204.8 million and $321.2 million, respectively. Of the May 31, 2020 and 2019 amounts, $18.2 million is a guaranteed investment contract which is valued at the contract value. The remaining $186.6 million and $303.0 million as of May 31, 2020 and 2019, respectively, categorized as Level 2 are valued using recently executed transactions, market price quotations (where observable), bond spreads, credit default swap spreads, at the money volatility and/or volatility skew obtained from independent external parties, such as vendors and brokers adjusted for any basis difference between cash and derivative instruments. The spread data used are for the same maturity as the bond.

- For the fiscal years ended May 31, 2020 and 2019, investment derivatives of $4.9 million and $11.9 million, respectively, categorized as Level 2 are valued using discounted future net cash flows, mid-market values, nonperformance risk and bid/offer spreads. See Note 9 for further discussion.

NOTE 4 CASH AND INVESTMENTS *(continued)*

Cash Equivalents and Investment Securities *(continued)*

The Indentures (as listed in Note 3) permit investments in obligations of, or are guaranteed by, the United States of America, its agencies, and its instrumentalities (United States Government obligations); certificates of deposit issued by institutions insured by the FDIC or fully collateralized with United States Government obligations; investment agreements with certain financial institutions; commercial paper and asset-backed securities rated in the highest category by applicable rating agencies; money market funds and auction rate certificates rated in one of the two highest categories by applicable rating agencies; corporate bonds and medium term notes with a minimum rating of “AA-”; investments in bonds or notes issued by any state or municipality which are rated by Moody’s Investors Service (Moody’s), Standard & Poor’s Ratings Group (S&P) and Fitch Investors Service (Fitch) in one of their two highest rating categories; and repurchase agreements with banks or primary government dealers reporting to the Federal Reserve Bank of New York collateralized with obligations of, or guaranteed by, the United States of America.

The Commission has an investment policy that defines guidelines and operational factors governing the investment of financial assets. The policy generally has the same restrictions regarding permitted investments as the Indentures. Permitted investments include:

- U.S. Treasury Bills, Notes, Bonds, Strips;
- Time Deposits issued by a banking association organized and doing business under the laws of the United States of America or of any state that may have a combined capital and surplus of at least $50.0 million;
- Certificates of Deposit that are fully collateralized and issued by a bank, savings and loan or trust company organized under the laws of the United States or any state thereof;
- Investment Agreements with a bank, a bank holding company or a financial institution that has outstanding long-term indebtedness rated “AA” or better by at least two of the three rating agencies (S&P, Moody’s and Fitch);
- Obligations of any federal agencies which obligations are backed by the full faith and credit of the United States of America;
- Senior debt obligations rated a minimum “AA” by S&P and “Aa2” by Moody’s issued by the following government-sponsored enterprises: Federal Home Loan Bank, Federal Farm Credit Bank, Federal Home Loan Mortgage Corporation and Federal National Mortgage Association;

NOTE 4 CASH AND INVESTMENTS *(continued)*

Cash Equivalents and Investment Securities *(continued)*

- Mortgage-backed securities issued by an approved federal agency and collateralized mortgage obligations so long as such securities are rated a minimum of “Aa2” by Moody’s and “AA” by S&P;

- Debt obligations of any state or local government entity, whether for itself, or as a conduit issuer, provided that the securities are rated in the “Aa/AA” category by at least two of S&P, Moody’s and Fitch and do not have a rating from any of S&P, Moody’s and Fitch below the “Aa/AA” category (without regard to subcategories of ratings), and provided that if a short-term rating is provided for the securities that they are rated in the top tier by at least two of the three of S&P (“A1” or better), Moody’s (“VMIG1” or “P1”), and Fitch (“F1”) and do not have a rating from any of the three rating agencies below such levels;

- Commercial paper rated by at least two of S&P, Moody’s and Fitch and not less than “A-1/P-1/F-1” by S&P, Moody’s and Fitch, respectively;

- Corporate bonds rated “Aa3/AA-” or better by Moody’s and S&P;

- Asset-backed securities rated “AAA” by Moody’s and S&P;

- Repurchase agreements with banks or primary government dealers reporting to the Federal Reserve Bank of New York, collateralized by investments with a minimum 102% valuation in securities of U.S. Treasury bills, notes, bonds, strips, or obligations of any federal agencies or senior debt obligations described above; and

- Share or Certificates in any short-term investment fund that invests not less than 90% of its assets in obligations of U.S. Treasury bills, notes, bonds, strips or time deposits.

All investment ratings shall be based on security ratings at the time of purchase. The portfolio’s average credit quality should be rated “Aa3/AA-” or better by Moody’s/S&P. Investments are generally purchased with the intent of holding to maturity with flexibility to restructure and rebalance portfolio holdings to manage risk and take advantage of market opportunities. The investment policy imposes the following additional limitations:

- Investments in any single federal agency, not carrying the full faith and credit of the U.S. Government, are limited to 35% of the portfolio.

- Investments in certificates of deposit and investment agreements in total are limited to 30% of the portfolio.

NOTE 4 CASH AND INVESTMENTS *(continued)*

Cash Equivalents and Investment Securities *(continued)*

- Combined exposure to commercial paper, corporate bonds, and asset-backed securities is limited to 35% of the total portfolio.
- Investments in any single issuer (excluding U.S. Treasury and federal agencies) are limited to 5% of the portfolio.

The Commission's Investment Policy also limits investments to those issues expected to mature within five years at the time of purchase, taking into consideration call, put, prepayment, or other features that may impact maturity. Similarly, the weighted average life of mortgages and asset-backed securities may not be more than 5 years. As of May 31, 2020, the Commission did not hold any securities that were not in compliance with the Investment Policy guidelines. As of May 31, 2019, the Commission held one municipal bond security with a market value of $14.1 million, which had a maturity greater than five years. This security was purchased prior to the Commission's adoption of an Investment Policy.

Credit Risk

The Commission's exposure to credit risk for investment securities is as follows:

	Quality Rating as of May 31, 2020					
Investment Type	**AAA**	**AA**	**A**	**A-1**	**Below A**	**Total**
			(In Thousands)			
Government agency securities	$ 5,754	$ 67,276	$ -	$ -	$ -	$ 73,030
Municipal bonds	13,734	8,191	16,098	1,495	-	39,518
Corporate obligations	36,854	132,028	20,978	14,876	80	204,816
	$ 56,342	$ 207,495	$ 37,076	$ 16,371	$ 80	$ 317,364

	Quality Rating as of May 31, 2019					
Investment Type	**AAA**	**AA**	**A**	**A-1**	**Below A**	**Total**
			(In Thousands)			
Government agency securities	$ 118,316	$ 4,815	$ -	$ -	$ -	$ 123,131
Municipal bonds	6,340	20,743	17,875	-	-	44,958
Corporate obligations	71,872	182,816	13,980	52,275	231	321,174
	$ 196,528	$ 208,374	$ 31,855	$ 52,275	$ 231	$ 489,263

Concentration of Credit Risk

Investments guaranteed by the full faith of the U.S. Government, such as U.S. Treasuries and GNMA mortgages, are not considered to have credit risk and do not require disclosure of credit quality.

As of May 31, 2020 and 2019, the Commission did not have any investments of more than 5% of its consolidated portfolio.

NOTE 4 CASH AND INVESTMENTS *(continued)*

Interest Rate Risk

The effective duration of the Commission's investments, by type, was as follows:

	As of May 31, 2020	
Investment Type	**Fair Value**	**Effective Duration**
	(In Thousands)	*(In Years)*
U.S. Treasuries	$ 1,316,725	2.7168
GNMA mortgages	1,168	4.2897
Government agency securities	73,030	0.6905
Municipal bonds	39,518	2.3269
Corporate obligations	204,816	1.1416
Total investment securities	$ 1,635,257	

	As of May 31, 2019	
Investment Type	**Fair Value**	**Effective Duration**
	(In Thousands)	*(In Years)*
U.S. Treasuries	$ 1,108,290	2.2121
GNMA mortgages	1,339	4.2896
Government agency securities	123,131	0.6851
Municipal bonds	44,958	2.5456
Corporate obligations	321,174	1.1399
Total investment securities	$ 1,598,892	

Custodial Credit Risk

For deposits and investments, custodial credit risk is the risk that in the event of the failure of the counterparty, the Commission will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. As of May 31, 2020 and 2019, $29.7 million and $23.6 million, respectively, of the Commission's demand deposits were exposed to custodial credit risk, as they were uninsured and collateralized with securities held by an agent of the pledging financial institution but not in the Commission's name. None of the Commission's investments were exposed to custodial credit risk as of May 31, 2020 or 2019.

NOTE 4 CASH AND INVESTMENTS *(continued)*

Investment Derivatives

Following is a summary of the Commission's investment derivatives as of May 31, 2020:

**	Notional Amount *(Thousands)*	Weighted Avg. Mat. *(Years)*	Effective Date	Maturity Date	Terms	Fair Value *(Thousands)*	Counterparty	Credit Ratings Moody's/ S&P's/Fitch
A	*Terminated on 06/27/19 and 07/02/19*							
	$ 112,000				Pay SIFMA, receive 63% of 1-month LIBOR + 20 bps	$ (137)	JPMorgan Chase Bank	Aa2/A+/AA
	48,000					(58)	Bank of New York Mellon	Aa2/AA-/AA
B	160,000	9.1	8/14/2003	12/1/2032		(195)		
	80,000				Pay 67% of 1-month LIBOR, receive 60.15% of the 10 year maturity of the USD-ISDA Swap rate	1,943	JPMorgan Chase Bank	Aa2/A+/AA
	80,000					1,969	Royal Bank of Canada	Aa2/AA-/AA
C	160,000	9.0	9/19/2006	11/15/2032		3,912		
D	115,810	11.8	6/1/2010	6/1/2039	Pay SIFMA, receive 99.68% of 3-month LIBOR	566	Goldman Sachs MMDP	Aa2/AA-/NR
E	115,810	11.8	6/1/2010	6/1/2039	Pay SIFMA, receive 99.80% of 3-month LIBOR	641	Deutsche Bank	A3/BBB+/BBB
						$ 4,924		

1-month LIBOR was 0.18250% as of May 31, 2020.
3-month LIBOR was 0.34400% as of May 31, 2020.
10-year maturity of the USD-ISDA swap rate was 0.657% as of May 31, 2020.
SIFMA was 0.14% as of May 31, 2020.

** Letters are used as references in Note 9 (Commitments and Contingencies).

NOTE 4 CASH AND INVESTMENTS *(continued)*

Investment Derivatives *(continued)*

Following is a summary of the Commission's investment derivatives as of May 31, 2019:

**	Notional Amount *(Thousands)*	Weighted Avg. Mat. *(Years)*	Effective Date	Maturity Date	Terms	Fair Value *(Thousands)*	Counterparty	Credit Ratings Moody's/ S&P's/Fitch
	$ 60,384	6.1				$ 449	JPMorgan Chase Bank	Aa2/A+/AA
	60,384	6.1			Pay 67% of 1-month LIBOR, receive 60.08% of the 10 year maturity of the USD-ISDA Swap Rate	454	Merrill Lynch CS*	A2/A-/A+
	60,384	6.1				449	PNC Bank	A2/A/A+
	75,478	6.1				569	Bank of New York Mellon	Aa2/AA-/AA
A	256,630		7/1/2007	12/1/2030		1,921		
	112,000				Pay SIFMA, receive 63% of 1-month LIBOR + 20 bps	(1,034)	JPMorgan Chase Bank	Aa2/A+/AA
	48,000					(442)	Bank of New York Mellon	Aa2/AA-/AA
B	160,000	10.1	8/14/2003	12/1/2032		(1,476)		
	80,000				Pay 67% of 1-month LIBOR, receive 60.15% of the 10 year maturity of the USD-ISDA Swap rate	1,003	JPMorgan Chase Bank	Aa2/A+/AA
	80,000					1,018	Royal Bank of Canada	Aa2/AA-/AA
C	160,000	10.0	9/19/2006	11/15/2032		2,021		
D	115,810	12.8	6/1/2010	6/1/2039	Pay SIFMA, receive 99.68% of 3-month LIBOR	4,403	Goldman Sachs MMDP	Aa2/AA-/NR
E	115,810	12.8	6/1/2010	6/1/2039	Pay SIFMA, receive 99.80% of 3-month LIBOR	4,997	Deutsche Bank	A3/BBB+/BBB+
						$ 11,866		

1-month LIBOR was 2.43050% as of May 31, 2019.
3-month LIBOR was 2.50250% as of May 31, 2019.
10-year maturity of the USD-ISDA swap rate was 2.124% as of May 31, 2019.
SIFMA was 1.42% as of May 31, 2019.

* On November 15, 2012, the Commission executed an amendment to the swap agreements to include Merrill Lynch Derivative Products as guarantor. Merrill Lynch Derivative Products credit ratings were Aa3/AA/NR (Moody's/S&P/Fitch) as of May 31, 2019.
** Letters are used as references in Note 9 (Commitments and Contingencies).

See Note 9 for additional disclosures regarding derivative instruments, including a rollforward from the prior-year balances.

NOTE 5 CAPITAL ASSETS

Summaries of changes to capital assets for the years ended May 31, 2020 and 2019 are as follows:

	Balance May 31, 2019	Additions	Transfers (In Thousands)	Reductions	Balance May 31, 2020
Capital assets not being depreciated (cost)					
Land and intangibles	$ 405,643	$ 20,420	$ -	$ 420	$ 425,643
Assets under construction	1,490,161	620,870	(322,346)	-	1,788,685
Total capital assets not being depreciated	1,895,804	641,290	(322,346)	420	2,214,328
Capital assets being depreciated (cost)					
Buildings	981,115	-	2,624	-	983,739
Improvements other than buildings	150,306	-	760	-	151,066
Equipment	642,785	11,273	64,253	11,508	706,803
Infrastructure	9,044,067	-	254,709	352,511	8,946,265
Total capital assets being depreciated	10,818,273	11,273	322,346	364,019	10,787,873
Less accumulated depreciation for					
Buildings	435,971	23,078	-	-	459,049
Improvements other than buildings	83,828	6,198	-	-	90,026
Equipment	539,630	39,826	-	11,457	567,999
Infrastructure	5,514,650	312,986	-	352,510	5,475,126
Total accumulated depreciation	6,574,079	382,088	-	363,967	6,592,200
Total capital assets being depreciated, net	4,244,194	(370,815)	322,346	52	4,195,673
Total capital assets	$ 6,139,998	$ 270,475	$ -	$ 472	$ 6,410,001

	Balance May 31, 2018	Additions	Transfers (In Thousands)	Reductions	Balance May 31, 2019
Capital assets not being depreciated (cost)					
Land and intangibles	$ 380,837	$ 25,178	$ -	$ 372	$ 405,643
Assets under construction	1,517,692	635,288	(662,819)	-	1,490,161
Total capital assets not being depreciated	1,898,529	660,466	(662,819)	372	1,895,804
Capital assets being depreciated (cost)					
Buildings	980,744	-	9,839	9,468	981,115
Improvements other than buildings	124,960	-	32,988	7,642	150,306
Equipment	621,430	10,119	14,297	3,061	642,785
Infrastructure	8,809,493	-	605,695	371,121	9,044,067
Total capital assets being depreciated	10,536,627	10,119	662,819	391,292	10,818,273
Less accumulated depreciation for					
Buildings	422,553	22,886	-	9,468	435,971
Improvements other than buildings	86,916	4,555	-	7,643	83,828
Equipment	514,325	28,240	-	2,935	539,630
Infrastructure	5,394,366	328,423	-	208,139	5,514,650
Total accumulated depreciation	6,418,160	384,104	-	228,185	6,574,079
Total capital assets being depreciated, net	4,118,467	(373,985)	662,819	163,107	4,244,194
Total capital assets	$ 6,016,996	$ 286,481	$ -	$ 163,479	$ 6,139,998

NOTE 6 SERVICE CONCESSION ARRANGEMENTS

There are 17 service plazas along the Turnpike System providing gasoline and diesel fuel, other automotive supplies and services, and restaurant services. The Commission has entered into long term service plaza redevelopment agreements with HMSHost Restaurants, LLC and Sunoco Retail LLC to design, reconstruct, finance, operate and maintain all of the service plazas. During fiscal year 2018, the agreement with Sunoco Retail LLC was assigned to 7-Eleven, Inc. All terms of the contract remained the same. The Commission has no responsibility for maintaining the service plazas under the agreements. The Commission maintains the ability to approve and/or modify the services that the operators can provide and the rates that can be charged. The service plaza operators are compensated by the users of the services and share a portion of the revenue with the Commission as rental payments. Upon completion of construction, the reconstructed assets are recognized by the Commission. The current contracts with HMSHost Restaurants, LLC and 7-Eleven, Inc. expire on August 25, 2036 and January 31, 2022, respectively. 7-Eleven Inc.'s lease may be extended for three additional five-year periods. The first extension shall be at the discretion of 7-Eleven Inc., and the second and third extensions shall be mutually agreed to by both parties.

As of May 31, 2020, the Commission had capitalized $125.4 million in capital assets representing all 17 service plazas that had fully completed construction and recorded deferred inflows of resources of $79.9 million related to these assets in accordance with GASB Statement No. 60. Also, as of May 31, 2020 and in accordance with GASB Statement No. 60, the Commission recognized a receivable and deferred inflow of resources in the amount of $26.6 million for the present value of guaranteed minimum rent payments. Due to the COVID-19 pandemic, in a letter dated April 8, 2020, the Commission waived the payment of minimum annual rent as set forth in the lease agreement for calendar year 2020. The receivable and deferred inflow of resources have been adjusted for this waiver.

As of May 31, 2019, the Commission had capitalized $125.4 million in capital assets representing all 17 service plazas that had fully completed construction and recorded deferred inflows of resources of $85.7 million related to these assets in accordance with GASB Statement No. 60. Also, as of May 31, 2019 and in accordance with GASB Statement No. 60, the Commission recognized a receivable and deferred inflow of resources in the amount of $29.6 million for the present value of guaranteed minimum rent payments scheduled to begin upon completion of all construction. Since the final service plaza was completed at the end of fiscal year 2018, guaranteed minimum rental payment requirements began in fiscal year 2019.

NOTE 7 DEBT

Following is a summary of debt outstanding:

	May 31, 2020	May 31, 2019
	(In Thousands)	
Mainline Senior Debt		
Mainline Senior Bonds		
2009 Series A Build America Bonds: Issued $275,000 in July 2009 at 6.105%, due in varying installments through June 1, 2039. Interest paid each June 1 and December 1.	$ 275,000	$ 275,000
2009 Series B: Issued $375,010 in December 2009 at 3.00% to 5.00%, due in varying installments through December 1, 2025. Interest paid each June 1 and December 1. Fully refunded in December 2019.	-	232,325
2010 Series B Build America Bonds: Issued $600,000 in September 2010 at 5.5%, due in varying installments through December 1, 2049. Interest paid each June 1 and December 1.	600,000	600,000
2011 Series A: Issued $68,660 in April 2011 at 4.00% to 5.00% due in varying installments through December 1, 2023. Interest paid each June 1 and December 1. Partially defeased in May 2019.	51,935	51,935
2012 Series A: Issued $200,215 in July 2012 at 3.00% to 5.00%, due in varying installments through December 1, 2042. Interest paid each June 1 and December 1. Partially refunded in October 2017, December 2017 and January 2020. Partially defeased in May 2019.	19,730	123,255
2013 Series B: Issued $265,155 in July 2013 at a variable rate (based on SIFMA + .40% to 1.27%, reset weekly, paid the 1st of each month). Due in varying installments through December 1, 2020. Partially refunded in June 2015 and June 2019.	100,000	200,000
2013 Series C: Issued $222,935 in August 2013 at 3.00% to 5.50%, due in varying installments through December 1, 2043. Interest paid each June 1 and December 1. Partially refunded in October 2017, December 2017 and January 2020.	48,135	164,850
2014 Series A: Issued $236,115 in April 2014 at 4.00% to 5.00%, due in varying installments through December 1, 2044. Interest paid each June 1 and December 1. Partially refunded in October 2017.	231,905	231,970
2014 Series B-1: Issued $444,280 in May 2014 at a variable rate (based on SIFMA + .05% to .98%, reset weekly, paid the 1st of each month). Due in varying installments through December 1, 2021. Partially refunded in June 2015, June 2016, October 2017, July 2018 and June 2019.	250,000	289,150
2014 Series Refunding: Issued $239,620 in November 2014 at 5.00%, due in varying installments through December 1, 2034. Interest paid each June 1 and December 1.	239,620	239,620
2014 Series C: Issued $294,225 in December 2014 at 2.25% to 5.00%, due in varying installments through December 1, 2044. Interest paid each June 1 and December 1. Partially refunded in October 2017.	284,200	285,950
2015 Series A-1: Issued $385,095 in June 2015 at 4.00% to 5.00%, due in varying installments through December 1, 2045. Interest paid each June 1 and December 1.	385,095	385,095
2015 Series A-2: Issued $115,635 in June 2015 at a variable rate (based on SIFMA + .15% to .90%, reset weekly, paid the 1st of each month). Due in varying installments through December 1, 2021.	25,000	50,000
2015 Series B: Issued $304,005 in December 2015 at 2.50% to 5.00%, due in varying installments through December 1, 2045. Interest paid each June 1 and December 1.	302,810	303,645
2016 Series A-1: Issued $447,850 in June 2016 at 3.00% to 5.00% due in varying installments through December 1, 2046. Interest is paid each June 1 and December 1.	447,850	447,850
2017 Series A-1: Issued $365,895 in October 2017 at 3.00% to 5.00% due in varying installments through December 1, 2047. Interest is paid each June 1 and December 1.	354,205	360,130
2017 Series A-2 Refunding: Issued $133,060 in October 2017 at 5.00% due in varying installments through December 1, 2030. Interest is paid each June 1 and December 1.	133,060	133,060
2018 Series A-1: Issued $182,455 in June 2018 at a variable rate (based on SIFMA + .35% to .60%, reset weekly, paid the 1st of each month). Due in varying installments through December 1, 2023.	182,455	182,455
2018 Series A-2: Issued $307,935 in June 2018 at 5% due in varying installments through December 1, 2048. Interest is paid each June 1 and December 1.	307,935	307,935
2018 Series B: Issued $141,200 in November 2018 at a variable rate (based on SIFMA + .50% to .70 %, reset weekly, paid the 1st of each month). Due in varying installments through December 1, 2023.	141,200	141,200
2019 First Series: Issued $84,365 in February 2019 at 5% due in varying installments through December 1, 2033. Interest is paid each June 1 and December 1.	84,365	84,365
2019 Second Series: Issued $139,815 in June 2019 at a variable rate (determined by the Remarketing Agent in accordance with the procedures detailed in the Bond Official Statement, paid the 1st of each month). Due in one installment on December 1, 2038.	139,815	-
2019 Series A: Issued $341,325 in August 2019 at 2.00% to 5.00% due in varying installments through December 1, 2049. Interest is paid each June 1 and December 1.	341,325	-
2019 Forward Delivery Series: Issued $179,815 in September 2019 at 5.00% due in varying installments through December 1, 2025. Interest is paid each June 1 and December 1.	179,815	-
2020 First Series: Issued $234,320 in January 2020 at 1.81% to 3.44% due in varying installments through December 1, 2043. Interest is paid each June 1 and December 1.	234,320	-
Total Mainline Senior Bonds	5,359,775	5,089,790

NOTE 7 DEBT *(continued)*

Following is a summary of debt outstanding: *(continued)*

	May 31, 2020	May 31, 2019
	(In Thousands)	
Mainline Senior Direct Placements & Direct Borrowings		
2016 EB-5 Loan (1st-3rd Tranches): Issued $150,000 in March 2016 at 2.00% due on March 18, 2021. Interest is paid each June 1 and December 1.	$ 150,000	$ 150,000
2016 EB-5 Loan (4th Tranche): Issued $50,000 in May 2016 at 2.00%, due on May 12, 2021. Interest is paid each June 1 and December 1.	50,000	50,000
2018 EB-5 Loan (1st Tranche): Issued $50,000 in February 2018 at 2.00% due on February 21, 2023. Interest is paid each June 1 and December 1.	50,000	50,000
2018 EB-5 Loan (2nd Tranche): Issued $45,000 in November 2018 at 2.00% due on November 13, 2023. Interest is paid each June 1 and December 1.	45,000	45,000
2019 EB-5 Loan (3rd Tranche): Issued $52,000 in November 2019 at 2.00% due on November 5, 2024. Interest is paid each June 1 and December 1.	52,000	-
2020 EB-5 Loan (4th Tranche): Issued $36,500 in January 2020 at 2.00% due on January 21, 2025. Interest is paid each June 1 and December 1.	36,500	-
Total Mainline Senior Direct Placements & Direct Borrowings	383,500	295,000
Total Mainline Senior Debt	5,743,275	5,384,790
Mainline Subordinate Debt (consisting of Subordinate Revenue Debt and Motor License Fund-Enhanced Subordinate Special Revenue Debt)		
Mainline Subordinate Revenue Debt		
Mainline Subordinate Bonds		
2008 Sub-Series A-2 Subordinate Revenue (Federally Taxable): Issued $68,290 in April 2008 at 3.74% to 6.41%, due in varying installments through June 1, 2022. Interest paid each June 1 and December 1. Partially refunded in October 2016.	-	5,835
2008 Sub-Series B-1, B-2 Subordinate Revenue (B-2 Federally Taxable): Issued $233,905 in July 2008 at 5.00% to 7.47%, due in varying installments through June 1, 2036. Interest paid each June 1 and December 1. Sub-series B-1 was partially refunded in February 2016, April 2016, and final refunding in June 2016. Sub-series B-2 was partially refunded in October 2016 and fully defeased in May 2020.	-	14,640
2009 Series A Subordinate Revenue: Issued $308,035 in January 2009 at 3.00% to 5.00%, due in varying installments through June 1, 2039. Interest paid each June 1 and December 1. Partially refunded in February 2016, April 2016, June 2016, October 2016, May 2017 and July 2017.	-	7,120
2009 Series B Subordinate Revenue: Issued $856,735 in July 2009 at 3.00% to 5.75%, due in varying installments through June 1, 2039. Interest paid each June 1 and December 1. Partially refunded in February 2016, April 2016, June 2016, October 2016 and July 2017.	-	23,065
2009 Series C Subordinate Revenue: Issued $99,998 in July 2009 at 6.25%, due in varying installments through June 1, 2033. Interest compounded semi-annually until June 1, 2016, thereafter paid each June 1 and December 1. Series C issued as Capital Appreciation Bonds (CABs). Compounded interest to be paid at maturity or earlier redemption.	152,355	152,355
2009 Series D Subordinate Revenue: Issued $324,745 in October 2009 at 4.00% to 5.50%, due in varying installments through December 1, 2041. Interest paid each June 1 and December 1. Partially refunded in February 2016, June 2016, October 2016, and May 2017.	-	4,560
2009 Series E Subordinate Revenue: Issued $200,005 in October 2009 at 6.00% to 6.375%, due in varying installments through December 1, 2038. Interest compounded semi-annually until December 1, 2017, thereafter paid each June 1 and December 1. Series E issued as CABs. The compounded interest to be paid at maturity or earlier redemption.	329,975	329,975
2010 Sub-Series B-1, B-2 Subordinate Revenue: Issued $273,526 in July 2010 at 5.00%. Sub-Series B-1 due in varying installments through December 1, 2037. Sub-Series B-2 issued as convertible CABs. Interest compounded semi-annually until December 1, 2015, thereafter paid each June 1 and December 1. Compounded interest paid at maturity or earlier redemption. Sub-Series B-1 was partially refunded in June 2016, November 2017 and final refunding in March 2020. Sub-Series B-2 was partially refunded in June 2016 and October 2016 and final refunding in July 2017.	-	11,285

NOTE 7 DEBT *(continued)*

Following is a summary of debt outstanding: *(continued)*

	May 31, 2020	May 31, 2019
	(In Thousands)	
2010 Sub-Series C-1, C-2, C-3 Subordinate Revenue: Issued $138,916 in October 2010 at 4.25% to 5.45%. Sub-Series C-1 due in varying installments through December 1, 2040. Sub-Series C-2 issued as convertible CABs. Interest compounded semi-annually until December 1, 2015, thereafter paid each June 1 and December 1. Compound interest paid at maturity or earlier redemption. Sub Series C-3 issued as CABs with interest paid at maturity or earlier redemption. Sub-series C-2 partially refunded in June 2016, July 2017 and final refunding in November 2017. Sub-Series C-1 partially refunded in December 2017 and final refunding in November 2019.	$ 24,291	$ 24,735
2011 Series B Subordinate Revenue: Issued $126,740 in October 2011 at 2.00% to 5.25%, due in varying installments through December 1, 2041. Interest paid each June 1 and December 1. Partially refunded in December 2017, November 2019 and February 2020.	15,050	62,680
2012 Series A Subordinate Revenue: Issued $123,545 in April 2012 at 3.00% to 5.00%, due in varying installments through December 1, 2042. Interest paid each June 1 and December 1. Partially refunded in July 2017, December 2017, November 2019 and February 2020.	12,770	71,740
2012 Series B Subordinate Revenue: Issued $121,065 in October 2012 at 2.00% to 5.00%, due in varying installments through December 1, 2042. Interest paid each June 1 and December 1. Partially refunded in December 2017, November 2019 and February 2020.	55,170	100,720
2013 Series A Subordinate Revenue: Issued $71,702 in April 2013 at 3.125% to 5.00%, due in varying installments through December 1, 2043. Sub-Series A-1 Serial bond interest paid each June 1 and December 1. Sub-Series A-1 Term bond interest paid each June 1 and December 1. Sub-Series A-2 issued as convertible CABs. Interest to be compounded semi-annually until December 1, 2018, thereafter paid each June 1 and December 1. Partially refunded February 2020.	52,965	82,845
2013 Sub-Series B-1, B-2, B-3 Subordinate Revenue: Issued $108,708 in October 2013 at 2.00% to 6.10%, due in varying installments through December 1, 2043. Sub-Series B-1 interest paid each June 1 and December 1. Sub-Series B-2 issued as convertible CABs. Interest to be compounded semi-annually until December 1, 2028, thereafter paid each June 1 and December 1. Compound interest paid at maturity or earlier redemption. Sub-Series B-3 interest paid each June 1 and December 1. Sub-Series B-3 partially refunded in December 2017 and final refunding in February 2020. Sub Series B-1 partially refunded in February 2020.	83,452	110,788
2014 Sub-Series A-1, A-2, A-3 Subordinate Revenue: Issued $148,300 in April 2014 at 2.00% to 5.44%, due in varying installments through December 1, 2043. Sub-Series A-1 interest paid each June 1 and December 1. Sub-Series A-2 issued as convertible CABs. Interest to be compounded semi-annually until June 1, 2024, thereafter paid each June 1 and December 1. Compound interest paid at maturity or earlier redemption. Sub-Series B-3 issued as CABs with interest paid at maturity or earlier redemption.	157,452	156,742
2014 Series B Subordinate Revenue: Issued $201,395 in October 2014 at 5.00% to 5.25% due in varying installments through December 1, 2044. Interest paid each June 1 and December 1.	201,395	201,395
2015 Series A-1 Subordinate Revenue: Issued $209,010 in April 2015 at 3.00% to 5.25% due in varying installments through December 1, 2045. Interest is paid each June 1 and December 1.	209,010	209,010
2015 Series B Subordinate Revenue: Issued $192,215 in October 2015 at 4.00% to 5.00% due in varying installments through December 1, 2045. Interest is paid each June 1 and December 1. Partially refunded in July 2017, November 2017 and December 2017.	131,070	131,160
2016 First Series Subordinate Revenue Refunding: Issued $360,990 in February 2016 at 3.00% to 5.00% due in varying installments through June 1, 2038. Interest is paid each June 1 and December 1. Partially defeased in May 2020.	313,210	360,560
2016 Series A-1 Subordinate Revenue: Issued $203,700 in April 2016 at 3.00% to 5.00% due in varying installments through December 1, 2046. Interest is paid each June 1 and December 1.	203,700	203,700
2016 Series A-2 Subordinate Revenue: Issued $185,455 in April 2016 at 5.00% due in varying installments through June 1, 2033. Interest is paid each June 1 and December 1.	185,455	185,455
2016 Second Series Subordinate Revenue Refunding: Issued $649,545 in June 2016 at 3.00% to 5.00% due in varying installments through June 1, 2039. Interest is paid each June 1 and December 1.	649,545	649,545
2016 Third Series Sub-Series A Subordinate Revenue Refunding: Issued $255,455 in October 2016 at 3.375% to 5.00% due in varying installments through December 1, 2041. Interest is paid each June 1 and December 1.	255,455	255,455
2016 Third Series Sub-Series B Subordinate Revenue Refunding (Federally Taxable): Issued $75,755 in October 2016 at 1.175% to 2.928% due in varying installments through December 1, 2025. Interest is paid each June 1 and December 1.	69,660	71,720

NOTE 7 DEBT *(continued)*

Following is a summary of debt outstanding: *(continued)*

	May 31, 2020	May 31, 2019
	(In Thousands)	
2017 Series A Subordinate Revenue: Issued $284,275 in January 2017 at 4.00% to 5.50% due in varying installments through December 1, 2046. Interest is paid each June 1 and December 1.	$ 284,275	$ 284,275
2017 Series B-1 Subordinate Revenue: Issued $379,115 in July 2017 at 5.00% To 5.25%. Due in varying installments through June 1, 2047. Interest paid each June 1 and December 1.	379,115	379,115
2017 Series B-2 Subordinate Revenue: Issued $371,395 in July 2017 at 4.00% to 5.00%. Due in varying installments through June 1, 2039. Interest paid each June 1 and December 1. Partially defeased in May 2020.	370,795	371,205
2017 Second Series Subordinate Revenue Refunding: Issued $150,425 in November 2017 at 5.00%. Due in varying installments through December 1, 2037. Interest paid each June 1 and December 1.	150,425	150,425
2017 Third Series Subordinate Revenue Refunding: Issued $143,585 in December 2017 at 4.00% to 5.00%. Due in varying installments through December 1, 2040. Interest paid each June 1 and December 1.	143,585	143,585
2019 Series A Subordinate Revenue: Issued $722,970 in June 2019 at 4.00% to 5.00%. Due in varying installments through December 1, 2049. Interest paid each June 1 and December 1.	722,970	-
2019 First Series Subordinate Revenue Refunding (Federally Taxable): Issued $86,730 in November 2019 at 2.16% to 3.78%. Due in varying installments through December 1, 2042. Interest paid each June 1 and December 1.	86,730	-
2020 First Series Subordinate Revenue Refunding (Federally Taxable): Issued $134,310 in February 2020 at 1.81% to 3.45%. Due in varying installments through December 1, 2043. Interest paid each June 1 and December 1.	134,310	-
Total Mainline Subordinate Bonds	5,374,185	4,755,690
Mainline Subordinate Direct Placements & Direct Borrowings		
2017 First Series Subordinate Revenue Refunding: Issued $291,850 in May 2017 at a variable rate (based on SIFMA + .60% reset weekly, paid the 1st of each month commencing on June 1, 2017). Due in varying installments through December 1, 2041.	291,850	291,850
Total Mainline Subordinate Direct Placements & Direct Borrowings	291,850	291,850
Total Mainline Subordinate Debt	5,666,035	5,047,540
Motor License Fund-Enhanced Subordinate Special Revenue Debt		
2010 Sub-Series A-1, A-2, A-3 Motor License Fund-Enhanced Subordinate Special Revenue: Issued $187,816 in July 2010 at 4.50% to 5.50%. Sub-Series A-1 due in varying installments through December 1, 2038. Interest paid each June 1 and December 1. Sub-Series A-2 issued as convertible CABs. Interest compounded semi-annually until December 1, 2015, thereafter paid each June 1 and December 1. Compound interest paid at maturity or earlier redemption. Sub-Series A-3 issued as CABs. Compounded interest to be paid at maturity or earlier redemption. Sub-Series A-2 was partially refunded in October 2016 and final refunding in November 2017. Sub-Series A-1 was partially refunded in November 2017 and final refunding in December 2017.	43,483	41,263
2010 Sub-Series B-1, B-2, B-3 Motor License Fund-Enhanced Subordinate Special Revenue: Issued $105,299 in October 2010 at 3.95% to 5.125%, due in varying installments through December 1, 2040. Sub-Series B-1 interest paid each June 1 and December 1. Sub-Series B-2 issued as convertible CABs. Interest compounded semi-annually until December 1, 2015, thereafter paid each June 1 and December 1. Compound interest paid at maturity or earlier redemption. Sub-Series B-3 issued as CABs with interest paid at maturity or earlier redemption. Sub-Series B-2 was partially refunded in October 2016 and July 2017 and final refunding in November 2017. Sub-Series B-1 was partially refunded in December 2017, November 2019 and fully refunded in February 2020.	24,945	46,467
2011 at 3.00% to 5.00%, due in varying installments through December 1, 2041. Interest paid each June 1 and December 1. Partially refunded in July 2017, November 2017, December 2017, November 2019 and February 2020.	4,930	29,560
2012 Series A Motor License Fund-Enhanced Subordinate Special Revenue: Issued $94,935 in April 2012 at 2.00% to 5.00%, due in varying installments through December 1, 2042. Interest paid each June 1 and December 1. Partially refunded in July 2017, November 2017, December 2017, November 2019 and February 2020.	4,855	36,260
2012 Series B Motor License Fund-Enhanced Subordinate Special Revenue: Issued $92,780 in October 2012 at 3.00% to 5.00%, due in varying installments through December 1, 2042. Interest paid each June 1 and December 1. Partially refunded in July 2017 and December 2017, November 2019 and February 2020.	17,965	69,495
2013 Series A Motor License Fund-Enhanced Subordinate Special Revenue: Issued $92,465 in April 2013 at 3.00% to 5.00%, due in varying installments through December 1, 2043. Interest paid each June 1 and December 1. Partially refunded in July 2017, November 2017, December 2017, November 2019 and February 2020.	7,585	69,105

NOTE 7 DEBT *(continued)*

Following is a summary of debt outstanding: *(continued)*

	May 31, 2020	May 31, 2019
	(In Thousands)	
2013 Sub-Series B-1, B-2, B-3 Motor License Fund-Enhanced Subordinate Special Revenue: Issued $101,731 in October 2013 at 2.00% to 5.875%, due in varying installments through December 1, 2043. Sub-Series B-1 interest paid each June 1 and December 1. Sub-Series B-2 issued as convertible CABs. Interest to be compounded semi-annually until December 1, 2028, thereafter paid each June 1 and December 1. Compound interest paid at maturity or earlier redemption. Sub-Series B-3 interest paid each June 1 and December 1. Partially refunded in July 2017, November 2017, December 2017 and February 2020.	$ 46,129	$ 83,691
2014 Series A Motor License Fund-Enhanced Subordinate Special Revenue: Issued $59,740 in April 2014 at 4.50% to 4.90%, due in varying installments through December 1, 2044. Series A were issued as convertible CABs. Interest to be compounded semi-annually until December 1, 2021, thereafter paid each June 1 and December 1. Compound interest paid at maturity or earlier redemption.	79,231	75,640
2016 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding: Issued $79,865 in October 2016 at 5.00% due in varying installments through December 1, 2036. Interest is paid each June 1 and December 1.	79,865	79,865
2017 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding: Issued $45,390 in July 2017 at 5.00%, due in varying installments through June 1, 2028. Interest due each June 1 and December 1.	45,390	45,390
2017 Second Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding: Issued $243,675 in November 2017 at 5.00%, due in varying installments through December 1, 2041. Interest due each June 1 and December 1.	243,675	243,675
2017 Third Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding: Issued $164,240 in December 2017 at 4.00% to 5.00%, due in varying installments through December 1, 2040. Interest due each June 1 and December 1.	164,240	164,240
2019 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding (Federally Taxable): Issued $151,130 in November 2019 at 2.01% to 3.58%, due in varying installments through December 1, 2043. Interest due each June 1 and December 1.	151,130	-
2020 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding (Federally Taxable): Issued $92,750 in February 2020 at 1.76% to 3.25%, due in varying installments through December 1, 2043. Interest due each June 1 and December 1.	92,750	-
Total Motor License Fund-Enhanced Subordinate Special Revenue Debt	1,006,173	984,651
Total Mainline Subordinate Debt (consisting of Subordinate Revenue Debt and Motor License Fund-Enhanced Subordinate Special Revenue Debt)	6,672,208	6,032,191
Total Mainline Senior and Subordinate Debt	12,415,483	11,416,981
Oil Franchise Tax Senior Debt		
2009 Series A, B, C Oil Franchise Tax Revenue: Issued $164,181 in October 2009. Series A issued at 2.00% to 5.85%, due in varying installments through December 1, 2023. Series B (Build America Bonds, Issuer Subsidy, Federally Taxable) issued at 5.85%, due in varying installments through December 1, 2037. Interest paid each June 1 and December 1. Series C issued as CABs at 5.30%. Interest on the CABs is deferred until maturity on December 1, 2039. Sub-Series A-2 partially refunded in September 2016.	159,173	159,413
2013 Series A Oil Franchise Tax Revenue Refunding: Issued $27,785 in October 2013 at 2.50% to 5.00%, due in varying installments through December 1, 2024. Interest paid each June 1 and December 1.	23,120	23,120
2016 Series A Oil Franchise Tax Revenue Refunding: Issued $198,595 in September 2016 at 4.00% to 5.00% due in varying installments through December 1, 2032. Interest paid each June 1 and December 1.	171,105	180,640
2018 Series A Oil Franchise Tax Revenue : Issued $231,385 in June 2018 at 5.00% to 5.25% due in varying installments through December 1, 2048. Interest paid each June 1 and December 1.	231,385	231,385
Total Oil Franchise Tax Senior Debt	584,783	594,558

NOTE 7 DEBT *(continued)*

Following is a summary of debt outstanding: *(continued)*

	May 31, 2020	May 31, 2019
	(In Thousands)	
Oil Franchise Tax Subordinate Debt		
2009 Series D, E Subordinate Oil Franchise Tax Revenue: Issued $134,065 in October 2009. Series D issued at 2.00% to 5.00%, due in varying installments through December 1, 2027. Series E (Build America Bonds, Issuer Subsidy, Federally Taxable) issued at 6.378%, due in varying installments through December 1, 2037. Sub-Series D-2 partially refunded in September 2016.	$ 123,045	$ 124,075
2013 Series B Subordinate Oil Franchise Tax Revenue: Issued $32,035 in October 2013 at 2.00% and 5.00%, due in varying installments through December 1, 2025. Interest paid each June 1 and December 1.	24,215	24,215
2016 Series B Subordinate Oil Franchise Tax Revenue Refunding: Issued $115,395 in September 2016 at 4.00% to 5.00% due in varying installments through December 1, 2032. Interest paid each June 1 and December 1.	95,925	102,725
2018 Series B Subordinate Oil Franchise Tax Revenue : Issued $210,480 in June 2018 at 5.00% to 5.25% due in varying installments through December 1, 2048. Interest paid each June 1 and December 1.	210,480	210,480
Total Oil Franchise Tax Subordinate Debt	453,665	461,495
Total Oil Franchise Tax Senior and Subordinate Debt	1,038,448	1,056,053
Motor License Registration Fee Debt		
Motor License Registration Fee Bonds		
2005 Series A: Issued $234,135 in August 2005 at 3.25% to 5.25%, due in varying installments through July 15, 2030. Interest paid each January 15 and July 15. Partially defeased in March 2019.	128,400	137,470
Total Motor License Registration Fee Bonds	128,400	137,470
Motor License Registration Fee Direct Placement & Direct Borrowings		
2005 Series B, C, D: Issued $231,425 in August 2005 and remarketed in October 2015 with a direct placement at a variable rate (based on 70% of 1-month LIBOR + .85%, reset monthly, paid the 15th of each month), due in varying installments through July 15, 2041.	231,425	231,425
Total Motor License Registration Fee Direct Placement & Direct Borrowings	231,425	231,425
Total Motor License Registration Fee Debt Payable	359,825	368,895
Total Debt Payable	13,813,756	12,841,929
Unamortized premium/discount	1,143,144	1,074,680
Total debt, net of unamortized premium/discount	14,956,900	13,916,609
Less: Current portion	573,880	325,205
Debt, noncurrent portion	$ 14,383,020	$ 13,591,404

As of May 31, 2020, the Commission had $906,775 in outstanding Direct Placements and Direct Borrowings.
SIFMA was 0.14% on May 31, 2020
1-month LIBOR was 0.18250% on May 31, 2020

As of May 31, 2019, the Commission had $818,275 in outstanding Direct Placements and Direct Borrowings.
SIFMA was 1.42% on May 31, 2019
1-month LIBOR was 2.43050% on May 31, 2019

NOTE 7 DEBT *(continued)*

The tables below summarize the total additions and total reductions in debt during fiscal years 2020 and 2019. Additions are the result of new debt issuances and bond accretion related to capital appreciation bonds. Reductions are the result of principal payments and bond refundings / defeasances.

	Balance at May 31, 2019	Additions	Reductions (In Thousands)	Balance at May 31, 2020	Due Within One Year
Mainline debt					
Mainline bonds	$ 10,830,131	$ 2,098,182	$ 1,188,180	$ 11,740,133	$ 345,615
Mainline direct placements & borrowings	586,850	88,500	-	675,350	200,000
Total Mainline debt	11,416,981	2,186,682	1,188,180	12,415,483	545,615
Oil Franchise Tax debt					
Oil Franchise Tax bonds	1,056,053	1,375	18,980	1,038,448	18,720
Total Oil Franchise Tax debt	1,056,053	1,375	18,980	1,038,448	18,720
Motor License Registration Fee debt					
Motor License Registration Fee bonds	137,470	-	9,070	128,400	9,545
Motor License Registration Fee direct placements and borrowings	231,425	-	-	231,425	-
Total Motor License Registration Fee debt	368,895	-	9,070	359,825	9,545
	12,841,929	2,188,057	1,216,230	13,813,756	573,880
Premium (discount), net	1,074,680	187,064	118,600	1,143,144	-
Totals	$ 13,916,609	$ 2,375,121	$ 1,334,830	$ 14,956,900	$ 573,880

	Balance at May 31, 2018	Additions	Reductions (In Thousands)	Balance at May 31, 2019	Due Within One Year
Mainline debt					
Mainline bonds	$ 10,499,280	$ 731,346	$ 400,495	$ 10,830,131	$ 297,155
Mainline direct placements & borrowings	785,500	45,000	243,650	586,850	-
Total Mainline debt	11,284,780	776,346	644,145	11,416,981	297,155
Oil Franchise Tax debt					
Oil Franchise Tax bonds	631,054	443,169	18,170	1,056,053	18,980
Total Oil Franchise Tax debt	631,054	443,169	18,170	1,056,053	18,980
Motor License Registration Fee debt					
Motor License Registration Fee bonds	155,085	-	17,615	137,470	9,070
Motor License Registration Fee direct placements and borrowings	231,425	-	-	231,425	-
Total Motor License Registration Fee debt	386,510	-	17,615	368,895	9,070
	12,302,344	1,219,515	679,930	12,841,929	325,205
Premium (discount), net	1,009,927	123,136	58,383	1,074,680	-
Totals	$ 13,312,271	$ 1,342,651	$ 738,313	$ 13,916,609	$ 325,205

NOTE 7 DEBT *(continued)*

Debt service requirements subsequent to May 31, 2020 related to all sections of debt are as follows:

	Bonds			Direct Borrowings and Direct Placements			Total Debt		
Year Ending May 31	Principal Maturities	Interest	Total	Principal Maturities	Interest	Total	Principal Maturities	Interest	Total
					(In Thousands)				
2021	$ 373,880	$ 581,013	$ 954,893	$ 200,000	$ 13,455	$ 213,455	$ 573,880	$ 594,468	$ 1,168,348
2022	477,910	573,184	1,051,094	-	8,223	8,223	477,910	581,407	1,059,317
2023	253,065	567,110	820,175	50,000	8,445	58,445	303,065	575,555	878,620
2024	458,470	554,464	1,012,934	45,000	7,188	52,188	503,470	561,652	1,065,122
2025	286,666	544,491	831,157	88,500	6,348	94,848	375,166	550,839	926,005
2026-2030	1,661,328	2,529,717	4,191,045	-	22,771	22,771	1,661,328	2,552,488	4,213,816
2031-2035	2,392,080	2,063,350	4,455,430	71,650	21,083	92,733	2,463,730	2,084,433	4,548,163
2036-2040	3,104,174	1,464,597	4,568,771	199,075	14,470	213,545	3,303,249	1,479,067	4,782,316
2041-2045	2,638,963	764,042	3,403,005	252,550	1,583	254,133	2,891,513	765,625	3,657,138
2046-2050	1,260,445	154,469	1,414,914	-	-	-	1,260,445	154,469	1,414,914
	$12,906,981	$ 9,796,437	$ 22,703,418	$ 906,775	$ 103,566	$ 1,010,341	$ 13,813,756	$ 9,900,003	$ 23,713,759

The Commission's purpose for issuing debt is as follows:

- Mainline Senior Debt is issued for the purpose of financing the costs of various capital projects in the Commission's Ten-Year Capital Plan and for refunding outstanding Mainline Senior Debt.

  In fiscal year 2020, the Commission issued $983,775,000 of Mainline Senior Debt; $429,825,000 was issued to finance the costs of various capital projects, and $553,950,000 was issued to refund outstanding Mainline Senior Debt.

  In fiscal year 2019, the Commission issued $760,955,000 of Mainline Senior Debt; $352,935,000 was issued to finance the costs of various capital projects, and $408,020,000 was issued to refund outstanding Mainline Senior Debt.

- Mainline Subordinate Debt is issued for the purpose of financing a portion of the costs of making payments to the Pennsylvania Department of Transportation in accordance with Act 44 and Act 89 and for refunding outstanding Subordinate Debt. See Note 9 for additional information regarding Act 44 and Act 89.

  In fiscal year 2020, the Commission issued $1,187,890,000 of Mainline Subordinate Debt; $722,970,000 was issued to finance the costs of Act 44 and Act 89, and $464,920,000 was issued to refund outstanding Mainline Subordinate Debt.

  The Commission did not issue any Mainline Subordinate Debt in fiscal year 2019.

NOTE 7 DEBT *(continued)*

- Oil Franchise Tax Debt and Motor License Registration Fee Debt are issued for the purpose of financing the costs of capital expenditures related to the Mon/Fayette and Southern Beltway expansion projects and to refund outstanding Oil Franchise Tax Debt and Motor License Registration Fee Debt.

  The Commission did not issue any Oil Franchise Tax Debt or Motor License Registration Fee Debt in fiscal year 2020.

  In fiscal year 2019, the Commission issued $441,865,000 of Oil Franchise Tax Debt to finance the costs of capital expenditures related to the Mon/Fayette and Southern Beltway expansion projects. The Commission did not issue any Motor License Registration Fee Debt in fiscal year 2019.

The issuance of new debt is conducted in accordance with the terms of the applicable Trust Indenture and approval of the Commissioners.

<u>Mainline Debt Requirements and Recent Activity</u>

The Amended and Restated Trust Indenture of 2001 requires that tolls be adequate to provide funds to cover current expenses and (1) provide funds in an amount not less than the greater of 130% of the maximum principal and interest requirements for the succeeding year, or (2) 100% of the maximum principal and interest payments for the next fiscal year plus the amount required for maintenance of the Turnpike System as determined by the Commission's Consulting Engineer. If any deficiencies occur, the Commission is obligated to raise tolls accordingly.

As disclosed in Note 3, the Commission's Trust Indentures impose certain restrictions and requirements. The Commission's Trust Indenture for the Turnpike Subordinate Revenue Bonds requires that the Commission establish and maintain schedules of tolls for traffic over the Turnpike System as required by the Senior Indenture, and in addition, the amount paid into the General Reserve Fund of the Senior Indenture in each fiscal year and for each Commission Payment, will be at least sufficient to provide funds in an amount not less than: (1) 115% of the Annual Debt Service for each fiscal year on account of all outstanding Revenue Bonds and Revenue Bonds Parity Obligations; (2) 100% of the Annual Debt Service for such fiscal year on account of all Outstanding Guaranteed Bonds, Guaranteed Bonds Parity Obligations and Subordinated Indebtedness; and (3) any payment by the Commission required by the Subordinate Indenture for restoring a deficiency in the Debt Service Fund within an 18-month period.

The Commission's Mainline Senior Debt (including Direct Placements and Borrowings) contains a provision that in an unresolved event of default and following a vote of the bondholders, outstanding amounts become immediately due if the Commission is unable to make payment.

NOTE 7 DEBT *(continued)*

Mainline Debt Requirements and Recent Activity *(continued)*

In fiscal year 2013, the Commission entered into a loan agreement to borrow up to $200.0 million in four tranches of up to $50.0 million each through the Immigrant Investor Program (known as the EB-5 visa program) administered by the U.S. Citizenship and Immigration Services. The Commission is borrowing this money to fund a portion of the I-95 Interchange Project. Such debt is issued under the Senior Indenture on parity with the Turnpike Revenue Bonds. As of May 31, 2020, and 2019, the Commission has borrowed all $200.0 million under the agreement.

In fiscal year 2017, the Commission entered into a second loan agreement to borrow, over a possible eight-year period, up to $800.0 million in 16 tranches of up to $50.0 million each through the EB-5 visa program. The Commission is borrowing this money to fund a portion of the costs of certain capital projects included in the Commission’s current Ten-Year Capital Plan. Such debt, if borrowed, would be issued under the Senior Indenture on parity with the Turnpike Revenue Bonds. The outstanding principal related to these EB-5 borrowings was $183.5 million and $95.0 million as of May 31, 2020 and 2019, respectively.

NOTE 7 DEBT *(continued)*

Mainline Debt Requirements and Recent Activity *(continued)*

Under the Commonwealth's Act 44 of 2007 (Act 44), the Commission may issue up to $5.0 billion of Special Revenue Bonds guaranteed by the Commonwealth's Motor License Fund. The Special Revenue Bonds authorized by Act 44 are subject to various limitations, including, among others, the following: the aggregate amount of such Special Revenue Bonds is limited to $5.0 billion; no more than $600.0 million of Special Revenue Bonds may be issued in any calendar year; debt service on the Special Revenue Bonds shall be payable from any available funds of the Commission, but are additionally secured by amounts payable from the Commonwealth's Motor License Fund which is required to pay any debt service shortfall. All Special Revenue Bond debt service payments are subordinate obligations of the Commission payable solely from certain money in, or periodically released from, the General Reserve Fund after meeting all other Commission requirements pursuant to any financial documents, financial covenants, insurance policies, liquidity policies or agreements in effect at the Commission. Pursuant to the Commonwealth's Act 89 of 2013, Special Revenue Bonds may not be issued by the Commission to fund any portion of its annual payment obligation to PennDOT after July 1, 2014, although Special Revenue Refunding Bonds may be issued. The outstanding principal related to these Special Revenue Bonds was $1,006.2 million and $984.7 million as of May 31, 2020 and 2019, respectively. The commitment of the Commonwealth's Motor License Fund to provide additional security to pay any Special Revenue Bond debt service shortfall shall continue until the retirement or defeasance of any Special Revenue Bonds or until October 13, 2057, whichever is sooner. To date, the Commission has made all required Special Revenue Bond debt service payments. No funds have been drawn or requested from the Commonwealth's Motor License Fund for Special Revenue Bond debt service during the current reporting period or any prior reporting periods. In the event that the Commonwealth's Motor License Fund would be required to make a Special Revenue Bond debt service payment, a provision of the Amended Lease and Funding Agreement, executed between the Commission and PennDOT, requires the Commission to reimburse the Motor License Fund for any Special Revenue Bond debt service payments plus interest accruing to the date of the Commission's failure to pay the debt service. The obligation of the Commission to reimburse the Motor License Fund for any Special Revenue Bond debt service payment is a subordinate obligation of the Commission and is payable only from amounts, if any, in the Commission's General Reserve Fund as permitted by any Commission financing documents, financial covenants, insurance policies, liquidity policies or agreements in effect at the Commission.

NOTE 7 DEBT *(continued)*

Mainline Debt Requirements and Recent Activity *(continued)*

In June 2018, the Commission issued $182,455,000 2018 Series A-1 Senior Revenue Bonds at a variable rate with a maturity date of December 1, 2023. The 2018 Series A-1 Senior Revenue Bonds were issued primarily for the current refunding of the December 1, 2018 maturity of the Commission's 2013 Series A Senior Revenue Bonds ($76,075,000), the current refunding of the December 1, 2018 maturity of the Commission's 2014 Series B-1 Senior Revenue Bonds ($65,000,000), the current refunding of the December 1, 2018 maturity of the Commission's 2016 Series A-2 Senior Revenue Bonds ($40,590,000) and for paying the costs of issuing the 2018 Series A-1 Senior Revenue Bonds.

In June 2018, the Commission issued $307,935,000 2018 Series A-2 Senior Revenue Bonds at a fixed rate with a maturity date of December 1, 2048. The 2018 Series A-2 Senior Revenue Bonds were issued to finance the cost of various capital expenditures set forth in the Commission's Ten-Year Capital Plan, including but not limited to, the reconstruction of roadbed and roadway, the widening, replacing and redecking of certain bridges and/or rehabilitation of certain interchanges and for paying the costs of issuing the 2018 Series A-2 Senior Revenue Bonds.

In November 2018, the Commission issued $141,200,000 2018 Series B Senior Revenue Bonds at a variable rate with a maturity date of December 1, 2023. The 2018 Series B Senior Revenue Bonds were issued primarily for the current refunding of the December 1, 2020 maturity of the Commission's 2017 Series B-1 Senior Revenue Bonds ($40,000,000) which were issued as a Direct Placement; the current refunding of the December 1, 2021 maturity of the Commission's 2017 Series B-2 Senior Revenue Bonds ($100,320,000), which were issued as a Direct Placement; and for paying the costs of issuing the 2018 Series B Senior Revenue Bonds.

In November 2018, the Commission issued, as a Direct Borrowing, $45,000,000 2018 EB-5 Loan (Second Tranche) at a fixed rate with a maturity date of November 13, 2023. The Commission is borrowing this money to fund a portion of the costs of certain capital projects included in the Commission's current Ten-Year Capital Plan and for paying the costs of issuing the 2018 EB-5 Loan.

In February 2019, the Commission issued $84,365,000 2019 First Series Senior Revenue Bonds at a fixed rate with a maturity date of December 1, 2033. The 2019 First Series Senior Revenue Bond were issued primarily for the current refunding of the Commission's 2017 Series C Senior Revenue Bonds ($103,330,000), which were issued as a Direct Placement, and for paying the costs of issuing the 2019 First Series Senior Revenue Bonds. The current refunding of 2017 Series C Senior Revenue Bonds allowed the Commission to reduce its debt service by approximately $8.6 million. The transaction resulted in an economic gain of $3.4 million.

NOTE 7 DEBT *(continued)*

Mainline Debt Requirements and Recent Activity *(continued)*

In May 2019, the Commission cash defeased the December 1, 2021 maturity of the Commission's 2012 Series A Senior Revenue Bonds ($4,525,000). This cash defeasance of the 2012 Series A Senior Revenue Bonds allowed the Commission to reduce its debt service by approximately $5.2 million. The transaction resulted in an economic gain of $0.3 million.

In May 2019, the Commission cash defeased the December 1, 2021 maturity of the Commission's 2011 Series A Senior Revenue Bonds ($16,725,000). This cash defeasance of the 2011 Series A Senior Revenue Bonds allowed the Commission to reduce its debt service by approximately $19.2 million. The transaction resulted in an economic gain of $1.0 million.

In June 2019, the Commission issued $139,815,000 of 2019 Second Series Senior Revenue Bonds at a variable rate with a maturity date of December 1, 2038. The 2019 Second Series Senior Revenue Bonds were issued to refund a portion of the 2013 Series B Senior Revenue Bonds ($100,000,000), 2014 Series B-1 Senior Revenue Bonds ($39,150,000), and for paying the costs of issuing the 2019 Second Series Senior Revenue Bonds.

In June 2019, the Commission issued $722,970,000 of 2019 Series A Subordinate Revenue Bonds at a fixed rate with a maturity date of December 1, 2049. The 2019 Series A Subordinate Revenue Bonds were issued primarily to finance a portion of the cost of making payments to PennDOT in accordance with Act 44 and Act 89 and for paying the costs of issuing the 2019 Series A Subordinate Revenue Bonds.

In August 2019, the Commission issued $341,325,000 of 2019 Series A Senior Revenue Bonds at a fixed rate with a maturity date of December 1, 2049. The 2019 Series A Senior Revenue Bonds were issued to finance the cost of various capital expenditures set forth in the Commission's Ten-Year Capital Plan, including but not limited to the reconstruction of roadbed and roadway, the widening, replacing and redecking of certain bridges and/or rehabilitation of certain interchanges and for paying the costs of issuing the 2019 Series A Senior Revenue Bonds.

In September 2019, the Commission issued $179,815,000 of the 2019 Forward Delivery Series Senior Revenue Bonds at a fixed rate with a maturity date of December 1, 2025. The 2019 Forward Delivery Series Senior Revenue Bonds were issued primarily for the current refunding of the 2009 Series B Senior Revenue Bonds ($190,080,000) and for paying the costs of issuing the 2019 Forward Delivery Series Senior Revenue Bonds. The current refunding of 2009 Series B Senior Revenue Bonds allowed the Commission to reduce its debt service by approximately $14.8 million. The transaction resulted in an economic gain of $10.7 million.

NOTE 7 DEBT *(continued)*

Mainline Debt Requirements and Recent Activity *(continued)*

In November 2019, the Commission issued, as a Direct Borrowing, $52,000,000 2019 EB-5 Loan (Third Tranche) at a fixed rate with a maturity date of November 5, 2024. The Commission is borrowing this money to fund a portion of the costs of certain capital projects included in the Commission's current Ten-Year Capital Plan and for paying the costs of issuing the 2019 EB-5 Loan.

In November 2019, the Commission issued $86,730,000 of 2019 First Series Subordinate Revenue Refunding Bonds (Federally Taxable) at a fixed rate with a maturity date of December 1, 2042. The 2019 First Series Subordinate Revenue Refunding Bonds were issued to provide funds for refunding a portion of the Commission's 2010 Series C-1 Subordinate Revenue Bonds ($1,540,000), 2011 Series B Subordinate Revenue Bonds ($40,130,000), 2012 Series A Subordinate Revenue Bonds ($25,910,000), 2012 Series B Subordinate Revenue Bonds ($12,685,000) and for paying the costs of issuing the 2019 First Series Subordinate Revenue Refunding Bonds. The advanced refunding of 2010 Series C-1 Subordinate Revenue Bonds, 2011 Series B Subordinate Revenue Bonds, 2012 Series A Subordinate Revenue Bonds, 2012 Series B Subordinate Revenue Bonds, and 2013 Series A Subordinate Revenue Bonds allowed the Commission to reduce its debt service by approximately $12 million. The transaction resulted in an economic gain of $8.4 million.

In November 2019, the Commission issued $151,130,000 of 2019 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds (Federally Taxable) at a fixed rate with a maturity date of December 1, 2043. The 2019 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds were issued to provide funds for refunding a portion of the Commission's 2010 Series B-1 Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($13,780,000), 2011 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($23,340,000), 2012 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($28,610,000), 2012 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($35,270,000), and 2013 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($39,765,000) and for paying the costs of issuing the 2019 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds. The advanced refunding of 2010 Series B-1 Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2011 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2012 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2012 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds, and 2013 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds allowed the Commission to reduce its debt service by approximately $28.1 million. The transaction resulted in an economic gain of $16.7 million.

NOTE 7 DEBT *(continued)*

Mainline Debt Requirements and Recent Activity *(continued)*

In January 2020, the Commission issued, as a Direct Borrowing, $36,500,000 2020 EB-5 Loan (Fourth Tranche) at a fixed rate with a maturity date of January 21, 2025. The Commission is borrowing this money to fund a portion of the costs of certain capital projects included in the Commission's current Ten-Year Capital Plan and for paying the costs of issuing the 2020 EB-5 Loan.

In January 2020, the Commission issued $234,320,000 of 2020 First Series Senior Revenue Bonds (Federally Taxable) at a fixed rate with a maturity date of December 1, 2043. The 2020 First Series Senior Revenue Bonds were issued to refund a portion of the 2012 Series A Senior Revenue Bonds ($99,380,000), 2013 Series C Senior Revenue Bonds ($115,580,000), and for paying the costs of issuing the 2020 First Series Senior Revenue Bonds. The advanced refunding 2012 Series A Senior Revenue Bonds and 2013 Series C Senior Revenue Bonds allowed the Commission to reduce its debt service by approximately $44.5 million. The transaction resulted in an economic gain of $25.7 million.

In February 2020, the Commission issued $134,310,000 of 2020 First Series Subordinate Revenue Refunding Bonds (Federally Taxable) at a fixed rate with a maturity date of December 1, 2043. The 2020 First Series Subordinate Revenue Refunding Bonds were issued to provide funds for refunding a portion of the Commission's 2010 Series B-1 Subordinate Revenue Bonds ($11,285,000), 2011 Series B Subordinate Revenue Bonds ($3,820,000), 2012 Series A Subordinate Revenue Bonds ($29,555,000), 2012 Series B Subordinate Revenue Bonds ($29,240,000), 2013 Series A Subordinate Revenue Bonds ($28,555,000), 2013 Series B-1 Subordinate Revenue Bonds ($18,200,000), 2013 Series B-3 Subordinate Revenue Bonds ($10,215,000) and for paying the costs of issuing the 2020 First Series Subordinate Revenue Refunding Bonds. The current refunding of 2010 Series B-1 Subordinate Revenue Bonds and the advanced refunding of 2011 Series B Subordinate Revenue Bonds, 2012 Series A Subordinate Revenue Bonds, 2012 Series B Subordinate Revenue Bonds, 2013 Series A Subordinate Revenue Bonds, 2013 Series B-1 Subordinate Revenue Bonds, and 2013 Series B-3 Subordinate Revenue Bonds allowed the Commission to reduce its debt service by approximately $32.4 million. The transaction resulted in an economic gain of $13.8 million.

NOTE 7 DEBT *(continued)*

Mainline Debt Requirements and Recent Activity *(continued)*

In February of 2020, the Commission issued $92,750,000 of 2020 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds (Federally Taxable) at a fixed rate with a maturity of December 1, 2043. The 2020 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds were issued to provide funds for refunding a portion of the Commission's 2010 Series B-1 Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($8,790,000), 2011 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($25,000), 2012 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($1,805,000), 2012 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($15,230,000), 2013 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($20,330,000), 2013 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($38,080,000) and for paying the costs of issuing the 2020 First Series Motor License Fund-Enhanced Subordinate Revenue Refunding Bonds. The advanced refunding of 2010 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2011 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2012 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2012 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2013 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds and 2013 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds allowed the Commission to reduce its debt service by approximately $21.7 million. The transaction resulted in an economic gain of $13.7 million.

In May 2020, the Commission cash defeased the June 1, 2020 maturity of the Commission's 2008 Series B Subordinate Revenue Bonds ($7,595,000), 2016 First Series Subordinate Revenue Refunding Bonds ($42,020,000), and 2017 Series B-2 Subordinate Revenue Bonds ($210,000). This cash defeasance of the Subordinate Revenue Bonds allowed the Commission to reduce its debt service by approximately $51.2 million. The transaction resulted in an economic loss of $0.1 million, which essentially represented transaction fees incurred as a result of the cash defeasance.

NOTE 7 DEBT *(continued)*

Mainline Debt Requirements and Recent Activity *(continued)*

Debt service requirements subsequent to May 31, 2020 related to the Mainline debt are as follows:

Year Ending May 31	Bonds Principal Maturities	Bonds Interest	Bonds Total	Direct Borrowings and Direct Placements Principal Maturities	Direct Borrowings and Direct Placements Interest	Direct Borrowings and Direct Placements Total	Total Debt Principal Maturities	Total Debt Interest	Total Debt Total
					(In Thousands)				
2021	$ 345,615	$ 521,074	$ 866,689	$ 200,000	$ 11,062	$ 211,062	$ 545,615	$ 532,136	$ 1,077,751
2022	448,195	514,673	962,868	-	5,830	5,830	448,195	520,503	968,698
2023	220,510	510,099	730,609	50,000	6,052	56,052	270,510	516,151	786,661
2024	424,255	499,102	923,357	45,000	4,788	49,788	469,255	503,890	973,145
2025	250,226	490,862	741,088	88,500	3,955	92,455	338,726	494,817	833,543
2026-2030	1,449,848	2,291,622	3,741,470	-	10,798	10,798	1,449,848	2,302,420	3,752,268
2031-2035	2,194,340	1,876,632	4,070,972	-	10,798	10,798	2,194,340	1,887,430	4,081,770
2036-2040	2,919,271	1,292,674	4,211,945	90,025	9,299	99,324	3,009,296	1,301,973	4,311,269
2041-2045	2,390,938	682,802	3,073,740	201,825	1,227	203,052	2,592,763	684,029	3,276,792
2046-2050	1,096,935	133,250	1,230,185	-	-	-	1,096,935	133,250	1,230,185
	$ 11,740,133	$ 8,812,790	$ 20,552,923	$ 675,350	$ 63,809	$ 739,159	$ 12,415,483	$ 8,876,599	$ 21,292,082

Oil Franchise Tax Debt Requirements and Recent Activity

The Oil Franchise Tax Revenue Bonds are secured by a pledge and assignment by the Commission to the Trustee of: (1) all proceeds from the Commission's allocation of the Commonwealth's Oil Company Franchise Tax; (2) the Commission's right to receive its allocation of the Oil Company Franchise Tax and any portion of the allocation actually received by the Commission; (3) all monies deposited into accounts or funds created by the 1998 Indenture, as supplemented; and, (4) all investment earnings on all monies held in accounts and funds established by the 1998 Indenture.

The 1998 Indenture requires the Commission to petition the General Assembly of the Commonwealth of Pennsylvania for additional funds in the event that the Commission's allocation of the Oil Company Franchise Tax is inadequate to pay maximum principal and interest payments for the succeeding year.

The Commission's Oil Franchise Tax Debt contains a provision that in an unresolved event of default and following a vote of the bondholders, outstanding amounts become immediately due if the Commission is unable to make payment.

In June 2018, the Commission issued $231,385,000 2018 Series A Oil Franchise Tax Senior Revenue Bonds at a fixed rate with a maturity date of December 1, 2048. The 2018 Series A Oil Franchise Tax Senior Revenue Bonds were issued to finance the costs of various capital expenditures for the Turnpike System as set forth in the Commission's current or any prior Independently Funded Capital Plan, including but not limited to, the funding of capital expenditures related to the Southern Beltway or the Mon-Fayette Expressway and for paying the costs of issuing the 2018 Series A Oil Franchise Tax Senior Revenue Bonds.

NOTE 7 DEBT *(continued)*

Oil Franchise Tax Debt Requirements and Recent Activity *(continued)*

In June 2018, the Commission issued $210,480,000 2018 Series B Oil Franchise Tax Subordinate Revenue Bonds at a fixed rate with a maturity date of December 1, 2048. The 2018 Series B Oil Franchise Tax Subordinate Revenue Bonds were issued to provide funds to finance the costs of capital expenditures related to the Southern Beltway or the Mon-Fayette Expressway, funding necessary reserves or similar funds to the extent required for such financing and for paying the costs of issuing the 2018 Series B Oil Franchise Tax Subordinate Revenue Bonds.

Debt service requirements subsequent to May 31, 2020 related to Oil Franchise Tax debt are as follows:

	Bonds			Direct Borrowings and Direct Placements			Total Debt		
Year Ending May 31	Principal Maturities	Interest	Total	Principal Maturities	Interest	Total	Principal Maturities	Interest	Total
					(In Thousands)				
2021	$ 18,720	$ 53,449	$ 72,169	$ -	$ -	$ -	$ 18,720	$ 53,449	$ 72,169
2022	19,670	52,535	72,205	-	-	-	19,670	52,535	72,205
2023	21,980	51,576	73,556	-	-	-	21,980	51,576	73,556
2024	23,090	50,497	73,587	-	-	-	23,090	50,497	73,587
2025	24,725	49,363	74,088	-	-	-	24,725	49,363	74,088
2026-2030	143,010	226,923	369,933	-	-	-	143,010	226,923	369,933
2031-2035	190,815	186,536	377,351	-	-	-	190,815	186,536	377,351
2036-2040	184,903	171,923	356,826	-	-	-	184,903	171,923	356,826
2041-2045	248,025	81,240	329,265	-	-	-	248,025	81,240	329,265
2046-2050	163,510	21,219	184,729	-	-	-	163,510	21,219	184,729
	$ 1,038,448	$ 945,261	$ 1,983,709	$ -	$ -	$ -	$ 1,038,448	$ 945,261	$ 1,983,709

Motor License Registration Fee Debt Requirements and Recent Activity

Pursuant to Section 20 of Act 3, the Commonwealth appropriates $28.0 million of Act 3 revenues to the Commission annually. The $28.0 million is payable to the Commission in the amount of $2.3 million per month. The Motor License Registration Fee Revenue Bonds are secured by a pledge and assignment by the Commission to the Trustee of any receipts, revenues and other moneys received by the Trustee on or after the date of the Indenture from the Commission's allocation of Act 3 revenues and any income earned on any fund or account established pursuant to the Indenture.

The Commission's Motor License Registration Fee Debt (including Direct Placements and Borrowings) contains a provision that in an unresolved event of default and following a vote of the bondholders, outstanding amounts become immediately due if the Commission is unable to make payment.

In July 2018, the Commission executed the First Amendment to Continuing Covenant Agreement and Supplemental Trust Indenture No. 3 relating to modifications of the 2005 Series B, C and D Motor License Registration Fee Revenue Bonds. These amendments modified various terms of the agreement.

NOTE 7 DEBT *(continued)*

Motor License Registration Fee Debt Requirements and Recent Activity *(continued)*

In February 2019, the Commission executed a further restructuring of the 2005 Series B, C and D Motor License Registration Fee Revenue Bonds. This included converting from a LIBOR based calculation to a SIFMA based calculation and remarketing these bonds to another direct purchaser.

In March 2019, the Commission cash defeased the July 15, 2030 maturity of the Commission's 2005 Series A Motor License Registration Fee Revenue Bonds ($9,000,000). The cash defeasance of 2005 Series A Motor License Registration Fee Revenue Bonds allowed the Commission to reduce its debt service by approximately $14.4 million. The transaction resulted in an economic gain of $3.0 million.

Debt service requirements subsequent to May 31, 2020 related to Motor License Registration Fee debt are as follows:

	Bonds			Direct Borrowings and Direct Placements			Total Debt		
Year Ending May 31	Principal Maturities	Interest	Total	Principal Maturities	Interest	Total	Principal Maturities	Interest	Total
					(In Thousands)				
2021	$ 9,545	$ 6,490	$ 16,035	$ -	$ 2,393	$ 2,393	$ 9,545	$ 8,883	$ 18,428
2022	10,045	5,976	16,021	-	2,393	2,393	10,045	8,369	18,414
2023	10,575	5,435	16,010	-	2,393	2,393	10,575	7,828	18,403
2024	11,125	4,865	15,990	-	2,400	2,400	11,125	7,265	18,390
2025	11,715	4,266	15,981	-	2,393	2,393	11,715	6,659	18,374
2026-2030	68,470	11,172	79,642	-	11,973	11,973	68,470	23,145	91,615
2031-2035	6,925	182	7,107	71,650	10,285	81,935	78,575	10,467	89,042
2036-2040	-	-	-	109,050	5,171	114,221	109,050	5,171	114,221
2041-2045	-	-	-	50,725	356	51,081	50,725	356	51,081
	$ 128,400	$ 38,386	$ 166,786	$ 231,425	$ 39,757	$ 271,182	$ 359,825	$ 78,143	$ 437,968

Defeased Bonds

In both the current and prior years, the Commission defeased certain revenue bonds by placing funds in irrevocable trusts to provide for all future debt service payments on the defeased bonds. Accordingly, the trust account assets and the liability for the defeased bonds were not included in the Commission's financial statements. As of May 31, 2020 and 2019, the Commission had $2,199.2 million and $2,968.2 million, respectively, of defeased bonds outstanding.

NOTE 7 DEBT *(continued)*

Arbitrage

The Tax Reform Act of 1986 instituted certain arbitrage restrictions with respect to the issuance of tax-exempt debt bonds after August 31, 1986. Arbitrage regulations deal with the investment of all tax-exempt bond proceeds at an interest yield greater than the interest yield paid to bondholders. Generally, all interest paid to bondholders can be retroactively rendered taxable if rebates are not reported and paid to the Internal Revenue Service (IRS) at least every five years. The arbitrage liability recorded as other noncurrent liabilities is $0.2 million and $0.8 million for the fiscal years ended May 31, 2020 and 2019, respectively.

Swap Payments and Associated Debt

Net swap payments and related debt service requirements related to all sections subsequent to May 31, 2020, assuming current interest rates remain the same for the term of the agreements, are as follows:

	Bonds				Direct Borrowings and Direct Placements				Total Debt			
Year Ending May 31	Principal Maturities	Interest	Hedging	Total	Principal Maturities	Interest	Hedging	Total	Principal Maturities	Interest	Hedging	Total
						(In Thousands)						
2021	$ 225,000	$ 5,261	$ 22,303	$ 252,564	$ -	$ 4,549	$ 16,008	$ 20,557	$ 225,000	$ 9,810	$ 38,311	$ 273,121
2022	259,710	2,818	22,690	285,218	-	4,553	16,007	20,560	259,710	7,371	38,697	305,778
2023	-	1,637	22,648	24,285	-	4,553	14,004	18,557	-	6,190	36,652	42,842
2024	188,945	905	22,603	212,453	-	4,563	14,003	18,566	188,945	5,468	36,606	231,019
2025	-	168	22,134	22,302	-	4,549	14,005	18,554	-	4,717	36,139	40,856
2026-2030	-	839	92,369	93,208	-	22,771	70,024	92,795	-	23,610	162,393	186,003
2031-2035	-	839	50,655	51,494	71,650	21,083	63,391	156,124	71,650	21,922	114,046	207,618
2036-2040	139,815	587	16,913	157,315	199,075	14,470	40,104	253,649	338,890	15,057	57,017	410,964
2041-2045	-	-	3,384	3,384	252,550	1,583	4,012	258,145	252,550	1,583	7,396	261,529
2046-2050	-	-	1,475	1,475	-	-	-	-	-	-	1,475	1,475
2051-2055	-	-	44	44	-	-	-	-	-	-	44	44
	$ 813,470	$ 13,054	$ 277,218	$ 1,103,742	$ 523,275	$ 82,674	$ 251,558	$ 857,507	$ 1,336,745	$ 95,728	$ 528,776	$ 1,961,249

Mainline net swap payments and related debt service requirements subsequent to May 31, 2020 for the 2013 Series B Senior Revenue Bonds, 2014 Series B-1 Senior Revenue Bonds, 2017 First Series Subordinate Revenue Refunding Bonds (Direct Placement), 2018 Series A-1 Senior Revenue Bonds, 2018 Series B Senior, 2019 First Series Senior Revenue Bonds and 2020 Series A Senior Revenue Bonds (swap payments only - see Note 9 and Note 15 for more information) are as follows:

	Bonds				Direct Borrowings and Direct Placements				Total Debt			
Year Ending May 31	Principal Maturities	Interest	Hedging	Total	Principal Maturities	Interest	Hedging	Total	Principal Maturities	Interest	Hedging	Total
						(In Thousands)						
2021	$ 225,000	$ 5,261	$ 22,303	$ 252,564	$ -	$ 2,156	$ 6,608	$ 8,764	$ 225,000	$ 7,417	$ 28,911	$ 261,328
2022	259,710	2,818	22,690	285,218	-	2,160	6,608	8,768	259,710	4,978	29,298	293,986
2023	-	1,637	22,648	24,285	-	2,160	4,605	6,765	-	3,797	27,253	31,050
2024	188,945	905	22,603	212,453	-	2,163	4,604	6,767	188,945	3,068	27,207	219,220
2025	-	168	22,134	22,302	-	2,156	4,605	6,761	-	2,324	26,739	29,063
2026-2030	-	839	92,369	93,208	-	10,798	23,027	33,825	-	11,637	115,396	127,033
2031-2035	-	839	50,655	51,494	-	10,798	23,026	33,824	-	11,637	73,681	85,318
2036-2040	139,815	587	16,913	157,315	90,025	9,299	19,821	119,145	229,840	9,886	36,734	276,460
2041-2045	-	-	3,384	3,384	201,825	1,227	2,616	205,668	201,825	1,227	6,000	209,052
2046-2050	-	-	1,475	1,475	-	-	-	-	-	-	1,475	1,475
2051-2055	-	-	44	44	-	-	-	-	-	-	44	44
	$ 813,470	$ 13,054	$ 277,218	$ 1,103,742	$ 291,850	$ 42,917	$ 95,520	$ 430,287	$ 1,105,320	$ 55,971	$ 372,738	$ 1,534,029

NOTE 7 DEBT *(continued)*

Swap Payments and Associated Debt *(continued)*

Motor License net swap payments and related debt service requirements subsequent to May 31, 2020 for the 2005 Series B, C, and D Motor License Registration Fee Bonds (Direct Placement) are as follows:

	Bonds				Direct Borrowings and Direct Placements				Total Debt			
Year Ending May 31	Principal Maturities	Interest	Hedging	Total	Principal Maturities	Interest	Hedging	Total	Principal Maturities	Interest	Hedging	Total
						(In Thousands)						
2021	$ -	$ -	$ -	$ -	$ -	$ 2,393	$ 9,400	$ 11,793	$ -	$ 2,393	$ 9,400	$ 11,793
2022	-	-	-	-	-	2,393	9,399	11,792	-	2,393	9,399	11,792
2023	-	-	-	-	-	2,393	9,399	11,792	-	2,393	9,399	11,792
2024	-	-	-	-	-	2,400	9,399	11,799	-	2,400	9,399	11,799
2025	-	-	-	-	-	2,393	9,400	11,793	-	2,393	9,400	11,793
2026-2030	-	-	-	-	-	11,973	46,997	58,970	-	11,973	46,997	58,970
2031-2035	-	-	-	-	71,650	10,285	40,365	122,300	71,650	10,285	40,365	122,300
2036-2040	-	-	-	-	109,050	5,171	20,283	134,504	109,050	5,171	20,283	134,504
2041-2045	-	-	-	-	50,725	356	1,396	52,477	50,725	356	1,396	52,477
	$ -	$ -	$ -	$ -	$ 231,425	$ 39,757	$ 156,038	$ 427,220	$ 231,425	$ 39,757	$ 156,038	$ 427,220

As rates vary, variable rate bond interest payments and net swap payments will vary.

NOTE 8 RETIREMENT BENEFITS

General Information about the Pension Plan

Plan Description

Pennsylvania State Employees' Retirement System (SERS) is the administrator of two mandatory-participation retirement plans: the Defined Benefit Plan and the Defined Contribution Plan (investment plan). The Defined Benefit Plan is a cost-sharing multiple-employer plan, for which the assets are held in the State Employees' Retirement Fund (pension fund). The investment plan was established by Act 2017-5; the law also established two new side-by-side hybrid defined benefit/defined contribution options and a new defined contribution only option. Assets in the investment plan are held in individual member investment accounts. Both the pension fund and investment plan were established to provide retirement benefits for employees of state government and certain independent agencies. Membership in SERS is mandatory for most Commission (and other state) employees. Additionally, most employees, who first enter SERS membership on or after January 1, 2019 are required to participate in one of the new investment plan options that were established under Act 2017-5 and became effective on this date. Article II of the Commonwealth's constitution assigns the authority to establish and amend the benefit provision of the plan to the General Assembly. Separately issued financial statements for SERS can be obtained at www.sers.pa.gov.

NOTE 8 RETIREMENT BENEFITS *(continued)*

General Information about the Pension Plan *(continued)*

Benefits Provided

SERS provides retirement, death, and disability benefits. Member retirement benefits of the pension plan are determined by taking years of credited service multiplied by final average salary multiplied by 2.0% multiplied by class of service multiplier. Commission employees participate in one of the following class of service categories: Class A, Class AA, Class A3, Class A4, Class A5 or Class A6. Class A5 and Class A6 became effective January 1, 2019. These classes are considered part of the Hybrid Plan as they include participation in both the pension fund and the investment plan. Employees are also eligible to elect participation solely in the investment plan, under the 401(a) DC class of service. According to the State Employees' Retirement Code (SERC), all obligations of SERS will be assumed by the Commonwealth should SERS terminate.

Contributions

Section 5507 of the SERC (71 Pa. C.S. §5507) requires that all SERS participating employers make contributions to the pension fund on behalf of all active members and annuitants necessary to fund the liabilities and provide the annuity reserves required to pay benefits. Section 5806 of the SERC (71 Pa. C.S. §5806) requires that all SERS-participating employers make contributions to the investment plan that shall be credited to the active participant's individual investment account. SERS funding policy, as set by the State Employees' Retirement Board (SERB), provides for periodic active member contributions at statutory rates for both the pension fund and investment plan. The SERS funding policy also provides for periodic employer contributions at actuarially determined rates based on SERS funding valuation, expressed as a percentage of annual retirement covered payroll, such that they, along with employee contributions and an actuarially determined rate of investment return, are adequate to accumulate assets to pay benefits when due. The Commission's retirement contribution, as a percentage of covered payroll, by class is as follows:

Year Ended June 30	Class A	Class AA	Class A3	Class A4	Class A5*	Class A6*	401(a) DC*
2020	28.84%	36.04%	24.92%	24.92%	19.18%	19.18%	19.12%
2019	27.71%	34.63%	23.94%	23.94%	18.42%	18.42%	18.39%
2018	27.55%	34.44%	23.80%	23.80%	N/A	N/A	N/A
2017	23.96%	29.95%	20.70%	20.70%	N/A	N/A	N/A

* *New plans effective January 1, 2019.*

NOTE 8 RETIREMENT BENEFITS *(continued)*

General Information about the Pension Plan *(continued)*

Contributions (continued)

Contributions to the pension fund from the Commission were $37.7 million and $37.8 million for the fiscal years ended May 31, 2020 and 2019, respectively. Contributions to the investment plan from the Commission were $97,900 and $5,900 for the fiscal years ended May 31, 2020 and 2019, respectively. There were $5,000 of forfeitures for the fiscal year ended May 31, 2020 related the investment plan. There were no forfeitures related to the investment plan for the fiscal year ended May 31, 2019.

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

As of May 31, 2020, the Commission reported a liability of $329.2 million for its proportionate share of the net pension liability of the pension fund. The net pension liability was measured as of December 31, 2019, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The Commission's proportion of the net pension liability was based on a projected-contribution method. This methodology applies the most recently calculated contribution rates for Commonwealth fiscal year 2020-2021, from the December 31, 2019 funding valuation, to the expected funding payroll for the allocation of the 2019 amounts. As of December 31, 2019, the Commission's proportionate share of the net pension liability was 1.81%, which was a decrease of 0.04% from its proportion measured as of December 31, 2018.

For the fiscal year ended May 31, 2020, the Commission recognized pension expense of $40.9 million related to the pension fund. For the fiscal year ended May 31, 2020, the Commission recognized pension expense of $98,100 related to the investment plan.

NOTE 8 RETIREMENT BENEFITS *(continued)*

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions *(continued)*

As of May 31, 2020, the Commission reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
	(In Thousands)	
Differences between expected and actual experience	$ 4,105	$ 2,230
Net difference between projected and actual investment earnings on pension plan investments	-	23,477
Changes of assumptions	12,685	-
Differences between employer contributions and proportionate share of contributions	635	177
Changes in proportion	2,160	16,608
Commission contributions subsequent to measurement date	18,252	-
	$ 37,837	$ 42,492

The $18.3 million reported as deferred outflows of resources related to pensions resulting from Commission contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ending May 31, 2021. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized as net increases or (decreases) in pension expense as follows:

Year Ending May 31	
	(in Thousands)
2021	$ (4,220)
2022	(8,109)
2023	503
2024	(11,314)
2025	233

NOTE 8 RETIREMENT BENEFITS *(continued)*

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions *(continued)*

As of May 31, 2019, the Commission reported a liability of $385.8 million for its proportionate share of the net pension liability. The net pension liability was measured as of December 31, 2018, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The Commission's proportion of the net pension liability was based on a projected-contribution method. This methodology applies the most recently calculated contribution rates for Commonwealth fiscal year 2019-2020, from the December 31, 2018 funding valuation, to the expected funding payroll for the allocation of the 2018 amounts. At December 31, 2018, the Commission's proportionate share of the net pension liability was 1.85%, which was a decrease of 0.05% from its proportion measured as of December 31, 2017.

For the fiscal year ended May 31, 2019, the Commission recognized pension expense of $50.4 million related to the pension fund. For the fiscal year ended May 31, 2019, the Commission recognized pension expense of $8,400 related to the investment plan.

As of May 31, 2019, the Commission reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
	(In Thousands)	
Differences between expected and actual experience	$ 5,790	$ 4,181
Net difference between projected and actual investment earnings on pension plan investments	37,538	-
Changes of assumptions	10,279	-
Differences between employer contributions and proportionate share of contributions	592	431
Changes in Commission's proportion	3,960	16,919
Commission contributions subsequent to measurement date	18,533	-
	$ 76,692	$ 21,531

NOTE 8 RETIREMENT BENEFITS *(continued)*

Actuarial Method and Assumptions

Every five years, SERS is required to conduct an actuarial experience study to determine whether the assumptions used in its annual actuarial valuations remain accurate based on current and anticipated demographic trends and economic conditions. The *18th Investigation of Actuarial Experience* study for the period 2011 – 2015 was released in March 2016. The actuary, under oversight of the Pennsylvania State Employees' Retirement Board (SERB), reviewed economic assumptions (such as the assumed future investment returns and salary increases) as well as demographic assumptions (such as employee turnover, retirement, disability, and death rates).

The SERB adopted the actuarial assumptions set forth in the *18th Investigation of Actuarial Experience* at its March 2016 meeting. The study can be viewed at www.SERS.pa.gov.

In addition to the five-year experience study, SERS reviews its investment return assumption in light of economic conditions every year. In June 2019, the SERB approved a reduction in the investment rate of return to 7.125% for the December 31, 2019 valuation from 7.25% for the December 31, 2018 valuation.

The following methods and assumptions were used in the actuarial valuation for the December 31, 2019 and 2018 measurement dates (except as noted in the previous paragraph):

Actuarial cost method	Entry age
Amortization method	Straight-line amortization of investments over five years and amortization of assumption changes and non-investment gains/losses over the average expected remaining service lives of all employees that are provided benefits
Investment rate of return	7.125% net of manager fees including inflation
Projected salary increases	Average of 5.60% with range of 3.70% - 8.90%, including inflation
Asset valuation method	Fair (market) value
Inflation	2.60%
Mortality rate	Projected RP-2000 Mortality Tables adjusted for actual plan experience and future improvement
Cost-of-living adjustments (COLA)	Ad hoc

NOTE 8 RETIREMENT BENEFITS *(continued)*

Actuarial Methods and Assumptions *(continued)*

The long-term expected real rate of return on pension plan investments is determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of manager fees and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's current and target asset allocation as of December 31, 2019 and 2018 are summarized in the following table:

Asset Class	Target Allocation	Long-term Expected Rate of Return
Private Equity	16.00%	7.25%
Global Public Equity	48.00%	5.15%
Real Estate	12.00%	5.26%
Multi-Strategy	10.00%	4.44%
Fixed Income	11.00%	1.26%
Cash	3.00%	-
Total	100.00%	

Discount Rate

The discount rate used to measure the total pension liability was reduced to 7.125% as of December 31, 2019 from 7.25% as of December 31, 2018. The projection of cash flows used to determine the discount rate assumed that employee contributions from pension plan members will be made at the current contribution rate and that contributions from participating employers will be made at actuarially determined rates as set by statute. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current pension plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

NOTE 8 RETIREMENT BENEFITS *(continued)*

Sensitivity of the Commission's Proportionate Share of the Net Pension Liability to Change in the Discount Rate

The following schedules presents the Commission's proportionate share of the 2019 and 2018 net pension liability calculated using the discount rate of 7.125% and 7.25%, respectively. It also shows what the Commission's proportionate share of the net pension liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate:

	1% Decrease to 6.125%	**Current Discount Rate of 7.125%**	**1% Increase to 8.125%**
		(in Thousands)	
Commission's share of the net pension liability as of the 12/31/19 measurement date	$ 418,288	$ 329,189	$ 252,909

	1% Decrease to 6.25%	**Discount Rate of 7.25%**	**1% Increase to 8.25%**
		(in Thousands)	
Commission's share of the net pension liability as of the 12/31/18 measurement date	$ 473,757	$ 385,821	$ 310,465

Pension Plan Fiduciary Net Position

Detailed information about the pension plan's fiduciary net position is available in the separately issued financial statements for SERS.

Payables to the Pension Plan

As of May 31, 2020 and 2019, the Commission reported a $18.3 million and $7.7 million liability, respectively, within accounts payable and accrued liabilities on the Statement of Net Position for the Commission's share of contributions that had not yet been paid to SERS. As of May 31, 2020, $7,800 of the amount payable to SERS was allocated to the investment plan with the remainder allocated to the pension fund. As of May 31, 2019, $2,600 of the amount payable to SERS was allocated to the investment plan with the remainder allocated to the pension fund.

NOTE 9 COMMITMENTS AND CONTINGENCIES

Litigation

On March 15, 2018, several individuals, entities and associations involved in or related to the commercial trucking industry (the Trucking Plaintiffs) filed a class action lawsuit against the Commission, several individuals in their individual capacity and in their official capacity related to the Commission, an individual in her individual capacity and in her official capacity as Chair of the Commission and as Secretary of Transportation, and Governor Wolf, in both his individual and official capacity (the Defendants). The litigation was captioned Owner Operator Independent Drivers Association, Inc. et al. v. Pennsylvania Turnpike Commission et al., No. 1:18-cv-00608-SHR (United States District Court for the Middle District of Pennsylvania) (the Lawsuit). The Trucking Plaintiffs alleged that Act 44, as amended by Act 89 (Act 44/89), violated the Commerce Clause and the right to travel under the U.S. Constitution, either facially or as applied, because the Commission improperly imposes Turnpike tolls beyond that which is necessary for the operation and maintenance of the Turnpike System and that the Commission expends toll revenues for purposes other than the operation and maintenance of the Turnpike System.

The Lawsuit sought, among other things, the following injunctive remedies: (1) a permanent injunction enjoining the Commission from issuing any further bonds or incurring any additional debt for the purpose of making Act 44/89 payments; and (2) a permanent injunction prohibiting the Commission from using toll revenues to make payments on outstanding bonds issued to meet Act 44/89 obligations. Moreover, the lawsuit sought certain monetary damages including a refund of a portion of certain tolls allegedly imposed upon the Trucking Plaintiffs' use of the Turnpike System in excess of what was reasonably necessary to pay for the cost of operating and maintaining the Turnpike System, together with any legally applicable interest and other compensation.

The Commission along with all of the other Defendants vigorously defended Act 44/89 and the propriety of the Commission's imposition and use of the Turnpike toll revenues in court.

On April 4, 2019, Judge Yvette Kane of the United States District Court for the Middle District of Pennsylvania (the District Court) issued a decision in which the District Court determined that tolls assessed by the Commission do not unduly burden interstate commerce or interfere with the constitutional right to travel and the Trucking Plaintiffs' complaint failed to state a claim upon which relief may be granted for violations of the dormant Commerce Clause or the constitutional right to travel. Accordingly, the District Court granted the Defendants' motions to dismiss the Trucking Plaintiffs' complaint. On August 13, 2019, the United States Court of Appeals for the Third Circuit affirmed the decision of the District Court, and subsequently denied the Trucking Plaintiffs' petition both for a panel rehearing and an en banc rehearing.

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Litigation *(continued)*

On December 11, 2019, the Trucking Plaintiffs filed a petition for a writ of certiorari in the United States Supreme Court (the Supreme Court) asking the Supreme Court to review the decision of the Third Circuit. On January 27, 2020, the Supreme Court denied the Trucking Plaintiffs' petition for a writ of certiorari asking the Supreme Court to review the decision of the Third Circuit. Owner Operator Independent Drivers Association, Inc. et al. v. Pennsylvania Turnpike Commission et al., cert. denied (U.S. Jan 27, 2020) (No. 19-762). This denial by the Supreme Court left undisturbed the favorable decision of the Third Circuit. The Trucking Plaintiffs did not file a petition for rehearing, as permitted by the Supreme Court rules, and the period to file such a petition expired on February 21, 2020. Thus, the class action lawsuit has concluded favorably to the Commission.

The Commission is a defendant in a number of other legal proceedings pertaining to matters normally incidental to routine operations. Such litigation includes, but is not limited to, claims asserted against the Commission arising from alleged torts, alleged breaches of contracts, and condemnation proceedings. Tort claims against the Commission are generally barred by sovereign immunity, except as waived by statute. Further, to the extent waived, damages for any loss are limited by sovereign immunity to $250,000 for each person and $1,000,000 for each accident. Based on the current status of these other legal proceedings, it is the opinion of Commission management and counsel that they will not have a material effect on the Commission's financial position.

Act 44 and Act 89

On July 18, 2007, Act 44 was enacted, creating a "public-public partnership" between the Commission and PennDOT to provide funding for roads, bridges and transit throughout the Commonwealth. Subsequently, in order to, among other things, effectuate the provisions of Act 44 requiring the Commission to make substantial annual payments to PennDOT, as described below, the Commission and PennDOT entered into a Lease and Funding Agreement (the Act 44 Funding Agreement), incorporating many of the terms of Act 44. The term of the Funding Agreement is fifty (50) years from October 14, 2007, its effective date.

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Act 44 and Act 89 *(continued)*

The Act 44 Funding Agreement also granted the Commission the option to lease the portion of Interstate 80 (I-80) located in the Commonwealth from PennDOT upon, among other things, the approval of the Federal Highway Administration (FHWA) of the conversion of such portion into a toll road (the Conversion). The Conversion was not approved by FHWA, and neither the Commission nor PennDOT appealed the decision. The Commission did not exercise its option to lease such portion of I-80, and the period during which the Commission could exercise its option under the Act 44 Funding Agreement lapsed on October 14, 2010 without the Commission effectuating the Conversion or having the ability to do so in the future. Under existing law, including Act 89, all legal, financial and operational responsibility for I-80 remains with PennDOT.

Pursuant to Act 44 and the Act 44 Funding Agreement, because the Conversion did not occur, the Commission was obligated to make scheduled annual payments of $450.0 million to PennDOT through 2057, payable in equal quarterly installments, with $200.0 million of the scheduled annual payment supporting road and bridge projects and $250.0 million supporting transit projects throughout the Commonwealth. See the following paragraphs for subsequent changes to such annual payments.

On November 25, 2013, Act 89 was enacted providing substantial revisions to the Commission's transportation funding obligations under Act 44 and authorized the Commission and PennDOT to immediately amend the Act 44 Funding Agreement to reflect the statutory provisions of Act 89. On April 4, 2014, the Commission and PennDOT executed Amendment Number One to the Lease and Funding Agreement (the *Act 89 Amendment* and together with the Act 44 Funding Agreement, the *Original Amended Funding Agreement*). In accordance with Act 89 and the Original Amended Funding Agreement, the Commission's aggregate annual payment to PennDOT for fiscal year 2014 through fiscal year 2022 is $450.0 million and, in accordance with Act 89, the Commission must pay at least $30.0 million of such amount from current revenues with the remainder expected to be funded by bonds issued under the Subordinate Revenue Indenture.

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Act 44 and Act 89 *(continued)*

On July 31, 2018, the Commission and PennDOT executed Amendment Number Two to the Lease and Funding Agreement (the *Amendment* and together with the Original Amended Funding Agreement, the *Amended Funding Agreement*). Pursuant to the terms of the Amendment, the Commission and PennDOT agreed to extend the due date for the Commission's July 31, 2018 Annual Base Payment of $50.0 million and Annual Additional Payment of $62.5 million to October 31, 2018 or such later date in the fiscal year ended June 30, 2019, as agreed to by the Commission and PennDOT. Further, the Commission and PennDOT agreed that the due date for any subsequent Annual Base Payment and Annual Additional Payment in the fiscal year ended June 30, 2019 could also be extended to any later date, not later than June 30, 2019, as agreed to by the Commission and PennDOT. In addition, the Amendment replaced the reference therein to "bondholder, debt holders, or creditors having such status as of the Effective Date" with "current bondholders, debt holders or creditors." Other various terms of the agreement were modified as well.

By letter agreement from the Commission to PennDOT, dated April 22, 2019, PennDOT confirmed and acknowledged that the due date for the Commission's July 31, 2018, October 31, 2018, January 31, 2019 and April 30, 2019 Annual Base Payments and Annual Additional Payments was extended to June 28, 2019 or such later date, not later than June 30, 2019, as the parties mutually agreed.

Commencing in fiscal year 2023 through the term of the Amended Funding Agreement, the Commission's aggregate annual payment to PennDOT is $50.0 million, which amount shall be paid from then current revenues of the Commission. Since 2017, by policy, the Commission has been providing $50.0 million from current revenues to fund a portion of its annual payment to PennDOT. The Amended Funding Agreement terminates on October 14, 2057.

As of May 31, 2019, the Commission accrued $450.0 million for the fiscal year 2019 scheduled payments that were not made to PennDOT during fiscal year 2019. This amount was included in current liabilities at May 31, 2019, and the payment was made on June 27, 2020. All regularly scheduled payments for the fiscal year ended May 31, 2020 were made. For both fiscal years, the amounts are recorded as nonoperating expenses.

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Act 44 and Act 89 *(continued)*

The Commission is required by the terms of the Amended Funding Agreement and Act 44 to fix and adjust tolls at levels that will generate revenues (together with other available moneys) sufficient to pay, among other things, amounts to PennDOT pursuant to the Amended Funding Agreement when due and other obligations of the Commission, and the Commission has covenanted in the Subordinate Indenture to set tolls at a level sufficient to meet its coverage obligations taking into account any additional debt incurred in order to make such payments.

Due to the significance of the quarterly payments under Act 44 and Act 89, the Commission currently does not have excess cash from operations to fully fund its required payments to PennDOT from current revenues. Therefore, the Commission plans to continue to increase toll rates annually and to issue debt through fiscal year 2022 to finance the majority of these payments. There can be no assurance that the Commission will be able to continue to issue debt on terms that are acceptable, or at all, to finance these obligations. The sole and exclusive remedy for the failure to make the required payments to PennDOT under the Amended Funding Agreement is that all actions of the Commission taken by a vote of the Commissioners thereafter must be approved by a unanimous vote of all Commissioners until such time as the payment is made. However, a unanimous vote is not required if it would prevent the Commission from complying with covenants with "current bondholders, debt holders or creditors." These voting procedures have never been used as the Commission has not missed any payments under the Amended Funding Agreement.

Act 44 and Act 89 provide that all required payments under the Amended Funding Agreement or as required by Act 44 or Act 89 shall be subordinate obligations of the Commission payable solely from the General Reserve Fund after meeting all other Commission requirements pursuant to any financial documents, financial covenants, liquidity policies or agreements in effect at the Commission.

Open Purchase Order Commitments

The Commission had open purchase order commitments of approximately $1.2 billion as of each of the fiscal years ended May 31, 2020 and 2019.

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Interest Rate Swaps

The fair value and notional amounts of derivative instruments outstanding as of May 31, 2020 and May 31, 2019, classified by type and the changes in fair value of such derivative instruments for the years then ended as reported in the fiscal year 2020 and 2019 financial statements are as follows:

		Changes in Fair Value		Fair Value at May 31, 2020		
	May 31, 2019	Classification	Amount	Classification	Amount	Notional
			(In Thousands)		*(In Thousands)*	
Cash flow hedges						
Pay-fixed interest rate swap	$ (126,520)	Deferred (outflows)/inflows	$ (90,634)	Noncurrent liabilities	$ (217,154)	$ 1,077,805
Investment derivative instruments						
Basis swaps	11,866	Investment earnings/(losses)	(6,942)	Noncurrent investments	4,924	551,620
Total PTC	$ (114,654)		$ (97,576)		$ (212,230)	

		Changes in Fair Value		Fair Value at May 31, 2019		
	May 31, 2018	Classification	Amount	Classification	Amount	Notional
			(In Thousands)		*(In Thousands)*	
Cash flow hedges						
Pay-fixed interest rate swap	$ (66,430)	Deferred (outflows)/inflows	$ (60,090)	Noncurrent liabilities	$ (126,520)	$ 977,305
Investment derivative instruments						
Basis swaps	11,572	Investment earnings/(losses)	294	Noncurrent investments	11,866	808,250
Total PTC	$ (54,858)		$ (59,796)		$ (114,654)	

Fair Values

As of May 31, 2020 and 2019, the fair values of the Commission's derivative instruments were estimated beginning with the mid-market valuation. The mid-market valuation of the Commission's derivative instruments was estimated using the zero-coupon discounting method. This method calculates the future net settlement payments required by the swap, assuming that the current forward rates implied by the yield curve are the market's best estimate of future spot interest rates. These payments are then discounted using the spot rates implied by the current yield curve for a hypothetical zero-coupon rate bonds due on the date of each future net settlement payments on the swaps.

The fair value under GASB Statement No. 72 is then incorporated into the above described mid-market valuation: 1) the credit risk of either the Commission or its counterparty (for a liability position or asset position, respectively) i.e. nonperformance risk; and 2) the bid/offer spread that would be charged to the Commission in order to transact. As the valuations are based on discounting future net cash flows to a single current amount, the approach being utilized is the income approach. The fair values rely primarily on Level 2 Inputs (observable inputs) – such as LIBOR rates to build the yield curve.

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Interest Rate Swaps *(continued)*

Recent Activity – Cash Flow Hedges

On June 28, 2018, the Commission issued 2018 Series A-1 Variable Rate Senior Revenue Bonds primarily to refund various maturing variable rate bonds. The 2018 Series A-2 Variable Rate Senior Revenue Bonds specifically included refunding the December 1, 2018 maturity of the 2014 Series B-1 Variable Rate Senior Revenue Bonds. As a result, $10.9 million notional amount of the Commission's Mainline SIFMA Fixed Payer swaps associated with those bonds were deemed terminated and are now associated with the 2018 Series A-1 Variable Rate Senior Revenue Bonds. The fair values at the time of deemed termination were a negative $0.2 million with respect to the Goldman Sachs MMDP swap, a negative $0.2 million with respect to the Merrill Lynch CS swap, and a negative $0.2 million with respect to the Morgan Stanley CS swap. These amounts are being amortized until December 1, 2038, which is the final maturity of the swaps.

On November 6, 2018, the Commission issued 2018 Series B Variable Rate Senior Revenue Bonds primarily to refund the outstanding 2017 Series B-1 and B-2 Variable Rate Senior Revenue Bonds (Direct Placement). As a result, the $86.3 million notional amount of the Commission's Mainline LIBOR Fixed Payer swaps associated with the 2017 Series B-2 Variable Rate Senior Revenue Bonds were deemed terminated and are now associated with the 2018 Series B Variable Rate Senior Revenue Bonds. The fair values at the time of deemed termination were $1.1 million with respect to the Bank of America swap, $1.1 million with respect to the Bank of New York Mellow swap, and $2.1 million with respect to the JPMorgan Chase Bank swap. These amounts are being amortized until December 1, 2030, which is the final maturity of the swaps.

On June 4, 2019, the Commission issued 2019 Second Series Senior Revenue Bonds; one purpose was to refund a portion of the Commission's outstanding 2014 Series B-1 Senior Revenue Bonds. As a result, the $39.2 million notional amount of the Commission's Mainline Senior SIFMA Fixed Payer swaps associated with the 2014 Series B-1 Senior Revenue Bonds were deemed terminated and are now associated with the 2019 Second Series Senior Revenue Bonds. The fair values at the time of deemed termination were $1.8 million with respect to the Goldman Sachs MMDP swap, $1.8 million with respect to the Merrill Lynch swap and $1.8 million with respect to the Morgan Stanley swap. These amounts are being amortized until December 1, 2038, which is the final maturity of the swaps.

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Interest Rate Swaps *(continued)*

Recent Activity – Cash Flow Hedges (continued)

On November 18, 2019, the Commission restructured its cancellable LIBOR Fixed Payer swap with Royal Bank of Canada on the Mainline Subordinate credit by delaying the first exercise date on the Commission's par call option from June 1, 2022 to June 1, 2029. In connection with this change, the fixed rate payable by the Commission beginning June 1, 2022 was lowered from 2.5125% to 1.8265%. The mark-to-market value of the swap at the time of the amendment was negative $12.0 million. This amount will be amortized until December 1, 2041, which is the final maturity of the swap.

On January 17, 2020, the Commission entered into a forward-starting cancellable SIFMA Fixed Payer swap, with an effective date of August 20, 2020, with Barclay's on the Mainline Senior credit, in anticipation of hedging a portion of expected new money variable-rate bonds. The 2020 Series A Senior Revenue Bonds were issued on August 20, 2020.

Recent Activity – Investment Derivatives

On June 1, 2018, the reversal of the Mainline SIFMA/LIBOR basis swap with Deutsche Bank expired. As a result, the ongoing cash flows under the transaction resumed. On October 22, 2018, the Commission partially terminated a portion of this Mainline SIFMA/LIBOR basis swap with Deutsche Bank; in exchange for receiving a termination payment of $3.4 million, the periodic cash flows on the swap were suspended until September 1, 2021. The notional amount on this investment derivative was $115.8 million as of each of the fiscal years ended May 31, 2020 and 2019.

On July 2, 2018, the reversals of the Mainline CMS trades with JPMorgan Chase Bank and PNC Bank expired. As a result, the ongoing cash flows under the transaction resumed. The notional amount on both of these investment derivatives was $60.4 million as of May 31, 2019.

On September 1, 2018, the reversal of the Mainline SIFMA/LIBOR basis swap with Goldman Sachs MMDP expired. On October 16, 2018, the Commission partially terminated a portion of this Mainline SIFMA/LIBOR basis swap with Goldman Sachs MMDP; in exchange for receiving a termination payment of $3.4 million, the periodic cash flows on the swap were suspended until September 1, 2021. The notional amount on this investment derivative was $115.8 million as of each of the fiscal years ended May 31, 2020 and 2019.

On November 15, 2018, the Oil Franchise Tax CMS reversal with Wells Fargo matured as scheduled. The notional amount on that investment derivative was $80.0 million as of May 31, 2018.

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Interest Rate Swaps *(continued)*

Recent Activity – Investment Derivatives (continued)

On January 2, 2019, the reversals of the Mainline CMS trades with Bank of New York Mellon and Merrill Lynch CS expired. As a result, the ongoing cash flows under the transactions have resumed. The notional amounts on these investment derivatives were $75.5 million (Bank of New York Mellon) and $60.4 million (Merrill Lynch CS).

On June 27, 2019, the Commission fully terminated its Mainline LIBOR/CMS basis swaps with JPMorgan Chase Bank and PNC Bank in exchange for receiving termination payments totaling $1.1 million. The notional amounts at the time of termination were as follows:

- JPMorgan Chase Bank - $60.4 million
- PNC Bank - $60.4 million

On July 2, 2019, the Commission fully terminated its Mainline LIBOR/CMS basis swaps with Bank of New York Mellon and Merrill Lynch CS in exchange for receiving termination payments totaling $1.3 million. The notional amounts at the time of termination were as follows:

- Bank of New York Mellon - $75.5 million
- Merrill Lynch CS - $60.4 million

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Interest Rate Swaps *(continued)*

Following is a summary of the hedging derivatives in place as of May 31, 2020 and 2019. All items are fixed interest rate swap types. These hedging derivatives contain risks and collateral requirements as described below (in thousands).

As of May 31, 2020:

Objective	Notional Amount	Effective Date	Maturity Date	Terms	Counterparty	Moody's/ S&P/Fitch	Book Fair Value
1. Hedge of changes of cash	$ 57,860	12/20/2013	7/15/2041		Bank of New York Mellon	Aa2/AA-/AA	$ (19,548)
flows on the 2005 Series B, C,	57,845	8/17/2005	7/15/2041	Pay 4.2015%,	JPMorgan Chase Bank	Aa2/A+/AA	(25,836)
D, Bonds	57,860	8/17/2005	7/15/2041	receive SIFMA	Merrill Lynch CS*	A2/A-/A+	(25,843)
	57,860	8/17/2005	7/15/2041		Morgan Stanley CS	A3/BBB+/A	(25,843)
	231,425						(97,070)
2. Hedge of changes of cash	16,944	7/23/2013	12/1/2030	Pay 4.403%,	Bank of America*	Aa2/A+/AA-	(1,960)
flows of 2013 Series B Bonds	33,865	7/23/2013	12/1/2030	receive 67.00%	JPMorgan Chase Bank	Aa2/A+/AA	(3,916)
(formerly 2009 Series C & 2011	16,944	7/23/2013	12/1/2030	of 1-month	Bank of New York Mellon	Aa2/AA-/AA	(1,960)
Series D Bonds)	67,753			LIBOR			(7,836)
3. Hedge of changes of cash	83,333	5/20/2014	12/1/2038		Goldman Sachs MMDP	Aa2/AA-/NR	(20,198)
flows of 2014 Series B-1 Bonds	83,333	5/20/2014	12/1/2038	Pay 4.887%,	Merrill Lynch CS*	A2/A-/A+	(20,206)
(formerly 2008 Series B-1 &	83,334	5/20/2014	12/1/2038	receive SIFMA	Morgan Stanley CS	A3/BBB+/A	(20,195)
2011 Series C Bonds)	250,000						(60,599)
4. Hedge of changes of cash flows on the 2017 Series A Subordinate Bonds	291,850	5/2/2017	12/1/2041	Pay 2.5125%, receive 70.00% of 3-month LIBOR	Royal Bank of Canada	Aa2/AA-/AA	(24,923)
5. Hedge of changes of cash							
flows of 2018 Series A-1 Bonds	3,617	6/28/2018	12/1/2038	Pay 4.887%,	Goldman Sachs MMDP	Aa2/AA-/NR	(670)
(formerly 2014 Series B-1, 2008	3,617	6/28/2018	12/1/2038	receive SIFMA	Merrill Lynch CS*	A2/A-/A+	(669)
Series B-1 & 2011 Series C	3,616	6/28/2018	12/1/2038		Morgan Stanley CS	A3/BBB+/A	(670)
Bonds)	10,850						(2,009)
6. Hedge of changes of cash				Pay 4.403%,			
flows of 2018 Series B Bonds	21,576	11/6/2018	12/1/2030	receive 67.00%	Bank of America*	Aa2/A+/AA-	(2,744)
(formerly 2017 Series B-2, 2016	21,576	11/6/2018	12/1/2030	of 1-month	Bank of New York Mellon	Aa2/AA-/AA	(2,744)
Series A-2, 2014 Series B-2 &	43,125	11/6/2018	12/1/2030	LIBOR	JPMorgan Chase Bank	Aa2/A+/AA	(5,485)
2012 Series B Bonds)	86,277						(10,973)
7. Hedge of changes of cash flow							
on the 2nd Series of 2019	13,050	6/4/2019	12/1/2038	Pay 4.887%,	Goldman Sachs MMDP	Aa2/AA-/NR	(1,493)
(formerly 2014 B-1,	13,050	6/4/2019	12/1/2038	receive SIFMA	Merrill Lynch CS*	A2/A-/A+	(1,493)
formerly2008 B-1 & 2011 C	13,050	6/4/2019	12/1/2038		Morgan Stanley CS	A3/BBB+/A	(1,492)
Bonds)	39,150						(4,478)
8. Hedge of changes of cash flows on the 2020 Series A Bonds (new money)	100,500	8/20/2020	12/1/2050	Pay 1.995%, receive SIFMA	Barclay's	A1/A/A+	(9,266)
Total	$ 1,077,805						$ (217,154)

1-month LIBOR was 0.1825% as of May 31, 2020
3-month LIBOR was 0.3440% as of May 31, 2020
SIFMA was 0.14% as of May 31, 2020

* On November 15, 2012, the Commission executed an amendment to the swap agreements to include Merrill Lynch Derivative Products as guarantor. Merrill Lynch Derivative Products credit ratings were Aa3/AA/NR (Moody's/S&P/Fitch) as of May 31, 2020.

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Interest Rate Swaps *(continued)*

As of May 31, 2019:

Objective	Notional Amount	Effective Date	Maturity Date	Terms	Counterparty	Moody's/ S&P/Fitch	Book Fair Value
1. Hedge of changes of cash	$ 57,860	12/20/2013	7/15/2041		Bank of New York Mellon	Aa2/AA-/AA	$ (12,855)
flows on the 2005 Series B, C,	57,845	8/17/2005	7/15/2041	Pay 4.2015%,	JPMorgan Chase Bank	Aa2/A+/AA	(19,371)
D, Bonds	57,860	8/17/2005	7/15/2041	receive SIFMA	Merrill Lynch CS*	A2/A-/A+	(19,375)
	57,860	8/17/2005	7/15/2041		Morgan Stanley CS	A3/BBB+/A	(19,375)
	231,425						(70,976)
2. Hedge of changes of cash	16,944	7/23/2013	12/1/2030	Pay 4.403%,	Bank of America*	Aa2/A+/AA-	(822)
flows of 2013 Series B Bonds	33,865	7/23/2013	12/1/2030	receive 67.00%	JPMorgan Chase Bank	Aa2/A+/AA	(1,643)
(formerly 2009 Series C & 2011	16,944	7/23/2013	12/1/2030	of 1-month	Bank of New York Mellon	Aa2/AA-/AA	(822)
Series D Bonds)	67,753			LIBOR			(3,287)
3. Hedge of changes of cash	96,383	5/20/2014	12/1/2038		Goldman Sachs MMDP	Aa2/AA-/NR	(13,103)
flows of 2014 Series B-1 Bonds	96,383	5/20/2014	12/1/2038	Pay 4.887%,	Merrill Lynch CS*	A2/A-/A+	(13,113)
(formerly 2008 Series B-1 &	96,384	5/20/2014	12/1/2038	receive SIFMA	Morgan Stanley CS	A3/BBB+/A	(13,100)
2011 Series C Bonds)	289,150						(39,316)
4. Hedge of changes of cash				Pay 2.5125%,			
flows on the 2017 Series A				receive 70.00%			
Subordinate Bonds				of 3-month			
	291,850	5/2/2017	12/1/2041	LIBOR	Royal Bank of Canada	Aa2/AA-/AA	(6,834)
5. Hedge of changes of cash							
flows of 2018 Series A-1 Bonds	3,617	6/28/2018	12/1/2038	Pay 4.887%,	Goldman Sachs MMDP	Aa2/AA-/NR	(280)
(formerly 2014 Series B-1, 2008	3,617	6/28/2018	12/1/2038	receive SIFMA	Merrill Lynch CS*	A2/A-/A+	(280)
Series B-1 & 2011 Series C	3,616	6/28/2018	12/1/2038		Morgan Stanley CS	A3/BBB+/A	(280)
Bonds)	10,850						(840)
6. Hedge of changes of cash				Pay 4.403%,			
flows of 2018 Series B Bonds	21,576	11/6/2018	12/1/2030	receive 67.00%	Bank of America*	Aa2/A+/AA-	(1,317)
(formerly 2017 Series B-2, 2016	21,576	11/6/2018	12/1/2030	of 1-month	Bank of New York Mellon	Aa2/AA-/AA	(1,317)
Series A-2, 2014 Series B-2 &	43,125	11/6/2018	12/1/2030	LIBOR	JPMorgan Chase Bank	Aa2/A+/AA	(2,633)
2012 Series B Bonds)	86,277						(5,267)
Total	$ 977,305						$ (126,520)

1-month LIBOR was 2.43050% as of May 31, 2019
3-month LIBOR was 2.50250% as of May 31, 2019
SIFMA was 1.42% as of May 31, 2019

* On November 15, 2012, the Commission executed an amendment to the swap agreements to include Merrill Lynch Derivative Products as guarantor. Merrill Lynch Derivative Products credit ratings were Aa3/AA/NR (Moody's/S&P/Fitch) as of May 31, 2019.

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Interest Rate Swaps *(continued)*

- ***Credit Risk*** – The Commission is at risk that a counterparty will not fulfill their obligations under the agreement. Specifically, the Commission is exposed to credit risk for hedging derivatives that have positive full values from the counterparty and investment derivatives (see Note 4) that have positive fair values. As of May 31, 2020, the Commission has credit risk exposure with respect to the (C), (D) and (E) investment derivatives listed in Note 4. However, should interest rates change and the fair values of the other swaps become positive, the Commission would have additional credit risk exposure.

  To mitigate the exposure to credit risk, the swap agreements include collateral provisions in the event of downgrades to the swap counterparties' credit ratings along with the values of the swaps exceeding certain thresholds specified in the swap agreement. The Commission's derivative agreements contain netting provisions, under which transactions executed with a single counterparty within a credit are netted to determine collateral amounts. Collateral would be posted with a bank custodian and would be in the form of cash, U.S. Treasury Obligations, or U.S. Government Agency Securities. As of May 31, 2020, the Commission had net credit risk exposure to three counterparties pursuant to the provisions of the respective derivative agreements. One counterparty has posted collateral in the amount of $0.8 million. The other two counterparties were not required to post collateral either due to their credit ratings or because the swap value at year end was below the collateral threshold levels.

- ***Interest Rate Risk*** – The Commission will be exposed to variable interest rates if the swap provider for a variable-to-fixed swap agreement defaults or if a variable-to-fixed swap is terminated.

- ***Market-access Risk*** – The Commission will be exposed to market-access risk for the hedging derivatives 2, 3, 5 and 6 in the summary of hedging derivatives table because the maturity date of these derivatives is longer than the maturity date of the related debt.

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Interest Rate Swaps *(continued)*

- ***Basis Risk*** – The Commission is exposed to basis risk on its basis swaps because the variable-rate payments received by the Commission on these derivative instruments are based on rates other than the interest rates the Commission pays on these derivative instruments. See the investment derivative schedule in Note 4 for the terms of the interest rate swap agreements. The Commission's exposure to basis risk for the swaps listed in Note 4 is as follows:

  (A) – To the extent 67% of 1-month LIBOR exceeds 60.08% of the 10-year maturity of the USD-ISDA Swap Rate *(fiscal year 2019 only)*

  (B) – To the extent SIFMA exceeds 63% of 1-month LIBOR + 20 basis points

  (C) – To the extent 67% of 1-month LIBOR exceeds 60.15% of the 10-year maturity of the USD-ISDA Swap Rate

  (D) – To the extent SIFMA exceeds 99.68% of 3-month LIBOR

  (E) – To the extent SIFMA exceeds 99.80% of 3-month LIBOR

- ***Termination Risk*** – The swap agreements may be terminated due to a number of circumstances and the Commission retains the option to terminate the swaps at any time. If a swap agreement is terminated (by either party), the respective variable-rate bond would no longer carry a synthetic fixed interest rate. Also, if at the time of termination, the swap had a negative fair value, the Commission would be liable to the swap counterparty for a liability equal to the swap's full value. It is generally the Commission's intent at the time of swap execution to maintain the swap transactions for the life of the financing.

- ***Collateral Requirements*** – The Commission's derivative instruments related to its Mainline Turnpike Revenue Bonds require the Commission to post collateral in the form of eligible securities or cash if its senior credit rating falls below specified thresholds. These thresholds vary from agreement to agreement, with most in the "A3" (Moody's) and "A-" (S&P and Fitch) levels. The Commission's Mainline Senior Bond rating was "A1" from Moody's, "A+" from S&P and "A+" from Fitch at May 31, 2020. The Commission's Mainline Subordinate Bond rating was "A3" from Moody's, "A" from S&P and "A-" from Fitch as of May 31, 2020. Based on May 31, 2020 full values, the Commission could be required to post $256.8 million in collateral for its derivate instruments if its ratings fall below the agreement thresholds.

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Interest Rate Swaps *(continued)*

The Commission's derivative instruments related to its Oil Franchise Tax Revenue Bonds require the Commission to post collateral in the form of eligible securities or cash if its credit rating falls below specifies thresholds. These thresholds vary from agreement to agreement, with most in the "A3" (Moody's) and "A-" (S&P and Fitch) levels. The Commission's Oil Franchise Tax Senior Bond rating was "Aa3" from Moody's, "AA-" from S&P and "AA" from Fitch as of May 31, 2020. Based on May 31, 2020 full values, the Commission could be required to post $0.1 million in collateral for its derivative instruments if its ratings fall below the agreements thresholds.

The Commission's derivative instruments related to its Motor License Registration Fee Revenue Bonds require the Commission to post collateral in the form of eligible securities or cash if its credit rating falls below specified thresholds and/or in the event of certain uncured insurer events of default. These thresholds vary from agreement to agreement. The Commission's Motor License Registration Fee Revenue Bond rating was "A1" from Moody's, "A+" from S&P and "AA-" from Fitch as of May 31, 2020. Based on May 31, 2020 full values, the Commission could be required to post $124.0 million in collateral for its derivative instruments if its ratings fall below the agreement thresholds.

NOTE 10 RELATED-PARTY TRANSACTIONS

The Commission incurred charges of $57.9 million and $53.2 million for the fiscal years ended May 31, 2020 and 2019, respectively, primarily related to its use of the Commonwealth's State Police in patrolling the Turnpike System.

In fiscal year 2019, $10.1 million was paid to PennDOT under an Interagency Contribution Agreement to share the costs associated with the design and construction of a replacement bridge to carry Freedom Road (SR 3020) over the Turnpike Mainline. The Commission did not make any payments to PennDOT under this agreement during fiscal year 2020.

NOTE 11 OTHER POSTEMPLOYMENT BENEFITS

<u>Plan Description</u>

The Commission maintains an Other Postemployment Welfare Plan Program (the Plan), for the purpose of providing benefits to eligible retirees and their dependents. The Plan is a single employer, defined benefit plan. The Commission established the Pennsylvania Turnpike Commission Retiree Medical Trust (the Trust) on May 30, 2008 as an irrevocable trust, tax-exempt under the Internal Revenue Code, to provide funding of the Plan's other postemployment benefits (OPEB).

The Trust is administered by the Trustees. PNC Bank serves as custodian of the assets of the Plan. Disbursement of Plan assets are made by the custodian at the direction of the Trustees. The Plan's financial statements are not included in the financial statements of a public employee retirement system. The Plan issues a stand-alone financial report, which can be obtained by contacting the Commission's Accounting & Financial Reporting Department.

Plan benefit provisions and retiree and dependent contribution rates are established and may be amended by the Commission.

Management and Supervisory Union Employees/Retirees

The benefits funded by the Trust include certain postemployment medical, prescription drug, dental and vision benefits to management and supervisory union employees based upon their date of hire and years of service. Eligibility categories include:

- Employees hired before March 1, 2016, who have reached 20 years of service and are under age 60; benefit eligibility changes from 20 to 10 years for retirees 60 years of age or older. The last five years of service must be with the Commission.

- Employees hired on or after March 1, 2016, who have reached 30 years of service and are under age 60; benefit eligibility changes from 30 to 25 years for retirees 60 years of age or older. The last 10 years of service must be with the Commission. (Some current and previous Commonwealth employees hired on or after this date would be grandfathered under the first eligibility category.)

The same coverage is provided to surviving spouses or domestic partners and dependents of management and supervisory union retirees who retired on or after March 1, 2001. Surviving spouses or domestic partners of retirees who retired prior to March 1, 2001 may purchase medical coverage at the group rate and dependents are offered coverage under COBRA. Medicare Part B premiums are paid by the retiree, spouse or dependent if age 65 or over, or under age 65 and disabled.

NOTE 11 OTHER POSTEMPLOYMENT BENEFITS *(continued)*

Plan Description *(continued)*

Non-Supervisory Union Employees/Retirees

The benefits also include certain postemployment medical and prescription drug benefits to non-supervisory union employees who have satisfied the age and/or Credited Service eligibility requirements in the applicable collective bargaining agreement. Credited Service is defined as one year of service earned when an employee works 1,650 hours or more in a calendar year. Eligibility categories include:

- For Local 30 professionals who were hired prior to January 1, 2011 and Local 250 and 77 employees who were hired prior to January 27, 2016, the earlier of completion of 20 years of credited service or the later of attainment of age 60 and completion of 10 years of credited service. The last five years of credited service must be with the Commission.

- For Local 30 professionals who were hired on or after January 1, 2011 and Local 250 and 77 employees who were hired on or after January 27, 2016, the earlier of completion of 30 years of credited service or the later of attainment of age 60 and completion of 25 years of credited service. The last 10 years of credited service must be with the Commission. (Some current and previous Commonwealth employees hired on or after this date for Local 30 professionals would be grandfathered under the first eligibility category.)

The same coverage is provided to spouses or domestic partners and dependents of eligible non-supervisory union retirees until the death of the retiree. Surviving spouses or domestic partners are required to contribute the full cost of coverage and dependents are offered coverage under COBRA.

Employees Covered by Benefit Terms

As of May 31, 2019 (the measurement date), the following employees were covered by the benefit terms.

Inactive plan members or beneficiaries currently receiving benefit payments	1,626
Inactive plan members entitled to but not yet receiving benefit payments	70
Active plan members	1,812
Total	3,508

NOTE 11 OTHER POSTEMPLOYMENT BENEFITS *(continued)*

Employees Covered by Benefit Terms *(continued)*

As of May 31, 2018 (the measurement date), the following employees were covered by the benefit terms.

Inactive plan members or beneficiaries currently receiving benefit payments	1,555
Inactive plan members entitled to but not yet receiving benefit payments	56
Active plan members	1,882
Total	3,493

Contributions

The Commission has adopted a Retiree Medical Trust Funding Policy, effective September 17, 2008, whereby the Commission anticipates approving an annual contribution to the Trust in the amount of the Annual Required Contribution (ARC) as determined by the Commission's actuary in accordance with GASB Statement No. 45, during the approval of its annual operating budget. With the implementation of GASB Statement No. 75, the Commission will now refer to the Actuarially Determined Contribution (ADC) instead of the ARC.

Retiree and spouse contribution rates at May 31, 2019 and 2018 are as follows:

- Management and supervisory union employees who retired prior to July 1, 1998 and union employees who retired prior to October 1, 1997 – the retiree/spouse contributes the full cost of coverage less the Commission's monthly subsidy of $19.28 once the retiree turns 65.

- Union employees who retired on October 1, 1997 or later – the retiree/spouse contributes the full cost of coverage less the Commission's monthly subsidy of $73.50 when the retiree or spouse reach age 65.

- Management and supervisory union employees who retire on or after March 1, 2016, and Local 250 and 77 employees who retire after February 1, 2016, as well as Local 30 professionals who retire after January 1, 2014, must participate in a wellness program or contribute 5% of the premium if less than age 65.

- Surviving spouses and domestic partners are paying 100% of the premiums, except for surviving spouses of management and supervisory union employees who retired after March 1, 2001.

NOTE 11 OTHER POSTEMPLOYMENT BENEFITS *(continued)*

Net OPEB Liability

As of May 31, 2020 and 2019, the Commission recorded a net OPEB liability of $1.8 million and $12.9 million, respectively.

Actuarial Assumptions and Discount Rate

The total OPEB liability for the fiscal years ended May 31, 2020 and 2019 were determined by actuarial valuations as of May 31, 2019 and June 1, 2017, respectively. The June 1, 2017 valuation was projected forward to the May 31, 2018 measurement date. These valuations were calculated based on the discount rate and actuarial assumptions below. There have been no significant changes between the valuation dates and the fiscal year ends.

	May 31, 2019	**May 31, 2018**
Discount rate	6.0%	6.0%
Long-term expected rate of return, net of investment expense	6.0%	6.0%

The Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the discount rate for calculating the total OPEB liability is equal to the long-term expected rate of return.

The plan has not had a formal actuarial experience study performed.

Measurement date	May 31, 2019	May 31, 2018
Actuarial cost method	Entry Age Normal	Entry Age Normal
Inflation	2.5%	2.3%
Salary increases for union members	3.0%	3.0%
Salary increases for management members	3.3%	3.3%
Amortization method	Level dollar amortization over a period of 10 years	
Asset Valuation method	Market value plus receivable contributions made attributable to a prior fiscal year	

NOTE 11 OTHER POSTEMPLOYMENT BENEFITS *(continued)*

Net OPEB Liability *(continued)*

Actuarial Assumptions and Discount Rate (continued)

The healthcare cost trend assumption is based on the Society of Actuaries Getzen Model version 2017.2 utilizing the baseline assumptions included in the model for medical and prescription drug benefits. Adjustments are applied based on percentage of costs associated with administrative expenses, aging factors, potential excise taxes due to healthcare reform, and other healthcare reform provisions.

The health cost trend assumption for benefits at sample years is as follows:

Valuation Year	Pre-65 Trend	Post-65 Trend
2019	5.2%	5.2%
2020	4.9	4.9
2025	4.8	4.7
2030	5.5	4.8
2035	5.5	4.8
2040	5.6	4.9
2050	5.2	4.7
2060	5.0	4.9
2070	4.3	4.8

Mortality rates were based on the RP-2014 Total Mortality Tables adjusted to reflect Mortality Improvement Scale MP-2018 (MP-2017 for the May 31, 2018 measurement date) and projected forward on a generational basis (based on recommendation of Society of Actuaries' Retirement Plans Experience Committee), with employee rates before benefit commencement and healthy annuitant rates after benefit commencement, and reflecting mortality improvements both before and after the valuation date.

In fiscal year 2019, revisions were made to various aspects of the Investment Policy Statement for the Other Postemployment Welfare Plan Program including both asset allocations and performance benchmarks.

NOTE 11 OTHER POSTEMPLOYMENT BENEFITS *(continued)*

Net OPEB Liability *(continued)*

Actuarial Assumptions and Discount Rate (continued)

The best-estimate range for the long-term expected rate of return is determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation. Best estimates of arithmetic real rates of return for each major asset class are summarized in the following tables:

As of May 31, 2019:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equity	27%	4.81%
International equity	18%	5.97
Rates/credit	25%	1.82
Real assets	19%	3.67
Multi-asset	10%	2.14
Cash	1%	0.20

As of May 31, 2018:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
U.S. equity	29%	4.8%
International equity	15%	6.4
Fixed income	15%	1.8
Real estate	15%	3.8
Global tactical asset allocation	10%	5.0
Hedge fund of funds	10%	2.1
Commodities	5%	3.0
Cash reserves	1%	0.2

NOTE 11 OTHER POSTEMPLOYMENT BENEFITS *(continued)*

Changes in the Net OPEB Liability

	Increases (Decreases)		
	Total OPEB Liability	**Plan Fiduciary Net Position**	**Net OPEB Liability (a) – (b)**
		(in Thousands)	
Balances as of May 31, 2018	$ 437,477	$ 424,543	$ 12,934
Changes for the year			
Service cost	11,254	-	11,254
Interest on OPEB liability	26,371	-	26,371
Effect of economic / demographic gains or losses	8,487	-	8,487
Effect of assumptions changes or inputs	(4,358)	-	(4,358)
Benefit payments	(17,032)	(17,032)	-
Employer contributions	-	46,056	46,056
Net investment income	-	6,789	6,789
Administrative expenses	-	(2)	(2)
Balances as of May 31, 2019	$ 462,199	$ 460,354	$ 1,845

	Increases (Decreases)		
	Total OPEB Liability	**Plan Fiduciary Net Position**	**Net OPEB Liability (a) – (b)**
		(in Thousands)	
Balances as of May 31, 2017	$ 421,775	$ 380,045	$ 41,730
Changes for the year			
Service cost	10,926	-	10,926
Interest on OPEB liability	25,431	-	25,431
Effect of economic / demographic gains or losses	(2,671)	-	(2,671)
Benefit payments	(17,984)	(17,984)	-
Employer contributions	-	28,171	28,171
Net investment income	-	34,322	34,322
Administrative expenses	-	(11)	(11)
Balances as of May 31, 2018	$ 437,477	$ 424,543	$ 12,934

NOTE 11 OTHER POSTEMPLOYMENT BENEFITS *(continued)*

<u>Changes in the Net OPEB Liability</u> *(continued)*

Sensitivity Analysis

The following presents the net OPEB liability of the Commission, calculated using the discount rate of 6.0%, as well as what the Commission's net OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (5.0%) or one percentage point higher (7.0%) than the current discount rate.

	1% Decrease (5%)	Current Discount Rate (6%)	1% Increase (7%)
		(in Thousands)	
Net OPEB liability (asset) as of May 31, 2019	$ 58,238	$ 1,845	$ (44,812)
Net OPEB liability (asset) as of May 31, 2018	$ 71,848	$ 12,934	$ (35,589)

The following presents the net OPEB liability of the Commission, calculated using the current healthcare cost trend rates as well as what the net OPEB liability would be if it were calculated using trend rates that are one percentage point lower or one percentage point higher than the current trend rates.

	1% Decrease	Current Trend Rate	1% Increase
		(in Thousands)	
Net OPEB (asset) liability as of May 31, 2019	$ (48,861)	$ 1,845	$ 64,200
Net OPEB (asset) liability as of May 31, 2018	$ (41,459)	$ 12,934	$ 80,340

OPEB Plan Fiduciary Net Position

Detailed information about the OPEB plan's fiduciary net position is available in the separately issued Pennsylvania Turnpike Commission Other Postemployment Welfare Plan Program financial statements. The stand-alone Plan financial statements can be obtained by contacting the Commission's Accounting & Financial Reporting Department.

NOTE 11 OTHER POSTEMPLOYMENT BENEFITS *(continued)*

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

For the year ended May 31, 2020, the Commission recognized OPEB expense of $13.2 million. As of May 31, 2020, the Commission reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
	(In Thousands)	
Differences between expected and actual experience	$ 7,072	$ 1,809
Changes of Assumptions	-	3,632
Net difference between projected and actual earnings on OPEB plan investments	15,644	6,731
Contributions subsequent to measurement date	11,730	-
	$ 34,446	$ 12,172

The $11.7 million reported as deferred outflows of resources related to OPEB resulting from Commission contributions subsequent to the measurement date will be recognized as a reduction of the net OPEB liability during the year ending May 31, 2021. Other amounts reported as deferred inflows of resources related to OPEB will be recognized as net increases in OPEB expense as follows:

Year Ending May 31	*(in Thousands)*
2021	$ 1,925
2022	1,925
2023	1,924
2024	4,168
2025	602
Thereafter	-

NOTE 11 OTHER POSTEMPLOYMENT BENEFITS *(continued)*

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB *(continued)*

For the year ended May 31, 2019, the Commission recognized OPEB expense of $10.6 million. As of May 31, 2019, the Commission reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
	(In Thousands)	
Differences between expected and actual experience	$ -	$ 2,240
Net difference between projected and actual earnings on OPEB plan investments	-	8,975
Contributions subsequent to measurement date	46,056	-
	$ 46,056	$ 11,215

The $46.1 million reported as deferred outflows of resources related to OPEB resulting from Commission contributions subsequent to the measurement date was recognized as a reduction of the net OPEB liability during the fiscal year ended May 31, 2020.

NOTE 12 SELF-INSURANCE

The Commission is exposed to various risks of losses such as theft of, damage to, and destruction of assets, errors and omissions, torts, injuries to employees and natural disasters. The Commission has purchased commercial all risk property insurance and stop loss insurance for employee medical and prescription benefits coverage. The Commission remains self-insured for dental and vision benefits, torts and injuries to employees as well as medical and prescription benefits up to stop loss coverages. No settlements exceeded insurance coverage for each of the past three years.

NOTE 12 SELF-INSURANCE *(continued)*

The Commission recorded a liability of $38.8 million and $37.9 million for loss and loss adjustment expenses for claims relating to workers' compensation, motor vehicle and tort self-insurance that have been incurred and for claims incurred but not reported as of May 31, 2020 and 2019, respectively. The workers' compensation, motor vehicle and tort self-insurance liabilities recorded as accounts payable and accrued liabilities are $4.0 million and $3.9 million for the fiscal years ended May 31, 2020 and 2019, respectively. The workers' compensation, motor vehicle and tort self-insurance liabilities recorded as other noncurrent liabilities are $34.8 million and $34.0 million for the fiscal years ended May 31, 2020 and 2019, respectively. This liability is based on GASB Statement No. 10, *Accounting and Financial Reporting for Risk Financing and Related Insurance Issues*, which requires that a liability for claims be recorded if information prior to the issuance of the financial statements indicates that it is probable that a liability has been incurred at the date of the financial statements and the amount of the loss can be reasonably estimated. The liability is calculated based on the Commission's past loss experience. The liability for vehicle and general tort was not discounted. The liability for workers' compensation was discounted using a rate of 1.5% and 2.5% for the fiscal years ended May 31, 2020 and 2019, respectively. The liability includes amounts for claims adjustment expense and is net of any recoveries and subrogation. Recoveries and subrogation were not material for the years ended May 31, 2020 and 2019. The Commission believes the liability established is reasonable and appropriate to provide for settlement of losses and related loss adjustment expenses.

Management believes that its reserve for claims incurred but not reported is determined in accordance with generally accepted actuarial principles and practices. However, estimating the ultimate liability is a complex and judgmental process since the amounts are based on management's informed estimates and judgments using data currently available. As additional experience and data become available regarding claim payments and reporting patterns, legislative developments and economic conditions, the estimates are revised accordingly, and the impact is reflected currently in the Commission's financial statements.

NOTE 12 SELF-INSURANCE *(continued)*

The following summaries provide aggregated information on self-insurance liabilities:

	May 31, 2019 Liability	Effects of Discount as of June 1, 2019	Incurred Claims Current Year	Incurred Claims Prior Years	Paid Claims Current Year	Paid Claims Prior Years	Effects of Discount as of May 31, 2020	May 31, 2020 Liability
Year ended May 31, 2020				*(In Thousands)*				
Workers' compensation	$ 8,704	$ 945	$ 1,272	$ 2,434	$ (592)	$ (2,767)	$ (1,169)	$ 8,827
Motor vehicle/general tort	29,209	-	230	1,332	(75)	(735)	-	29,961
	$ 37,913	$ 945	$ 1,502	$ 3,766	$ (667)	$ (3,502)	$ (1,169)	$ 38,788

	May 31, 2018 Liability	Effects of Discount as of June 1, 2018	Incurred Claims Current Year	Incurred Claims Prior Years	Paid Claims Current Year	Paid Claims Prior Years	Effects of Discount as of May 31, 2019	May 31, 2019 Liability
Year ended May 31, 2019				*(In Thousands)*				
Workers' compensation	$ 9,464	$ 1,098	$ 982	$ 1,599	$ (268)	$ (3,226)	$ (945)	$ 8,704
Motor vehicle/general tort	29,998	-	62	(480)	(27)	(344)	-	29,209
	$ 39,462	$ 1,098	$ 1,044	$ 1,119	$ (295)	$ (3,570)	$ (945)	$ 37,913

The foregoing reflects an adjustment for an increase of $3.8 million and an increase of $1.1 million for the fiscal years ended May 31, 2020 and 2019, respectively, in the provision for events of prior fiscal years (Incurred Claims – Prior Years) that resulted from a change in estimate as more information became available.

NOTE 13 COMPENSATED ABSENCES

Sick leave is earned at a rate of 3.08 hours every two weeks, or 10 days per year. Unused sick leave may be carried over from year to year, up to a maximum of 18 days. In November of each year, employees are reimbursed for all accumulated unused sick leave above the maximum. Sick leave payouts were $1.7 million during each of the fiscal years ended May 31, 2020 and 2019.

Vacation leave is earned at varying rates, depending on years of service. Management and supervisory union employees earn between 4.62 and 8.93 hours every two weeks. Non-supervisory union employees earn between 3.08 and 8.93 hours every two weeks.

Upon termination of employment, all unused sick and vacation leave is paid to the employee. The compensated absences liabilities were $17.4 million and $15.9 million for the fiscal years ended May 31, 2020 and 2019, respectively. The compensated absences liabilities recorded as accounts payable and accrued liabilities were $9.6 million and $8.7 million for the fiscal years ended May 31, 2020 and 2019, respectively. The compensated absences liabilities recorded as other noncurrent liabilities were $7.8 million and $7.2 million for the fiscal years ended May 31, 2020 and 2019, respectively.

NOTE 13 COMPENSATED ABSENCES *(continued)*

A summary of changes to compensated absences for the years ended May 31, 2020 and 2019 is as follows:

Fiscal Year Ended May 31	Beginning Balance	Additions	Reductions	Ending Balance	Due Within One Year
			(In Thousands)		
2020	$ 15,885	$ 12,562	$ 11,061	$ 17,386	$ 9,562
2019	15,874	12,362	12,351	15,885	8,737

NOTE 14 LETTERS OF CREDIT

Pennsylvania insurance law requires a letter of credit, surety bond, or escrow from entities that self-insure their Workers' Compensation. As of May 31, 2020, the Commission has one standby letter of credit to satisfy the PA Turnpike's collateral requirement under the expired Owner Controlled Insurance Program (OCIP) with Zurich American Insurance; there have been no draws against the letter of credit. The Letter of Credit is $375,000 with Wells Fargo Bank, N.A. for beneficiary Zurich American Insurance for the Uniontown to Brownsville Phase II OCIP.

In May 2017, in lieu of a letter of credit, the Commission placed $2.0 million into an escrow account with Wells Fargo (naming Liberty Mutual as beneficiary) for the new OCIP on the U.S. 22 to I-79 portion of the Southern Beltway currently under construction.

NOTE 15 SUBSEQUENT EVENTS

On June 2, 2020, the Commission approved the layoff of Fare Collection Department employees and Ticket Systems Audit Department employees due to the implementation of All Electronic Tolling (AET). On this same date, the Commission so informed representatives of Teamsters Local Union Nos. 77 and 250 (collectively the *Union*). The resulting layoff of approximately 492 bargaining unit employees was implemented effective as of June 18, 2020. In accordance with terms negotiated with the Union, the laid off employees may receive severance based on their years of seniority upon execution of a release of claims. On or about June 25, 2020, the Union submitted three grievances challenging the layoff of the bargaining unit employees due to the implementation of AET. In the grievances, the Union contends that the above referenced layoff violated provisions of the applicable collective bargaining agreements and terms of the Memoranda of Understanding and/or purported oral promises relating to the layoff of employees. In particular, the Union contends that the Commission was not permitted to lay off employees due to the implementation of AET until January 2022. The Union is requesting that the laid off employees be reinstated to their former positions and be made whole (including back pay). The Commission contends that it has: (a) not violated any provisions of the applicable collective bargaining agreements, (b) not violated any provisions of the Memoranda of Understanding relating to the layoff of employees, and (c) acted consistently with the applicable provisions of the collective bargaining agreements and Memoranda of Understanding relating to the layoffs resulting from the implementation of AET. Accordingly, the Commission intends to vigorously defend its legal and contractual rights to implement AET and to lay off employees due to such implementation. An arbitration in this matter is currently scheduled to be held on November 11, 2020.

Due to the COVID-19 pandemic, in a letter dated June 2, 2020, the Commission and HMSHost agreed to defer HMSHost's service plaza payments of calendar year 2020 Percentage Rent for the remaining accounting cycles of 2020. These deferred payments will be paid in twelve equal, monthly installments in 2021 beginning on January 20, 2021.

On June 3, 2020, in order to assure liquidity throughout the COVID-19 pandemic mitigation efforts, the Commission obtained a one-year, $200.0 million line of credit for operating expenses from PNC Bank, N.A.

NOTE 15 SUBSEQUENT EVENTS *(continued)*

In response to the impacts of the COVID-19 pandemic, in particular, declines in Commission traffic and revenue and disruptions in the capital markets, PennDOT and the Commission negotiated an Amendment Number Three to the Lease and Funding Agreement, which was executed by all parties on June 11, 2020 (the *Amendment Three*, and together with the Original Amended Funding Agreement and the Amendment, the *Amended Funding Agreement*). Pursuant to the terms of the Amendment Three, the Commission and PennDOT agreed to extend the due date for the Commission's July 31, 2020 Annual Base Payment of $50.0 million and Annual Additional Payment of $62.5 million to October 31, 2020 or such later date in the fiscal year ending June 30, 2021 as may be agreed to by the Commission and PennDOT. Further, the Commission and PennDOT agreed that the due date for any subsequent Annual Base Payment and Annual Additional Payment in the fiscal year ending June 30, 2021 may also be extended to any later date, not later than June 30, 2021, as may be agreed to by the Commission and PennDOT.

On June 23, 2020, the Commission issued $225,820,000 of 2020 Second Series Senior Revenue Bonds at a variable rate with a maturity date of December 1, 2039. The 2020 Second Series Senior Revenue Bonds were issued to refund a portion of the 2013 Series B Senior Revenue Bonds ($100,000,000), 2014 Series B-1 Senior Revenue Bonds ($100,000,000), 2018 Series A-1 ($25,000,000), and for paying the costs of issuing the 2020 Second Series Senior Revenue Bonds.

On August 20, 2020, the Commission issued $100,500,000 of 2020 Series A Senior Revenue Bonds at a variable rate with a maturity date of December 1, 2050. The 2020 Series A Senior Revenue Bonds were issued to finance the cost of various capital expenditures set forth in the Commission's Ten-Year Capital Plan, including but not limited to the reconstruction of roadbed and roadway, the widening, replacing and redecking of certain bridges and/or rehabilitation of certain interchanges, and for paying the costs of issuing the 2020 Series A Senior Revenue Bonds.

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REQUIRED SUPPLEMENTARY INFORMATION

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Schedule of Commission's Proportionate Share of the Net Pension Liability –
Pennsylvania State Employees' Retirement System – Pension Fund (Unaudited)

Last 10 Fiscal Years*
(Dollar Amounts in Thousands)

	2020	2019	2018	2017	2016	2015
Commission's proportion of the net pension liability	1.81091910%	1.85214667%	1.90329134%	1.96867410%	1.90799267%	1.99409814%
Commission's proportionate share of the net pension liability	$ 329,189	$ 385,821	$ 329,112	$ 379,173	$ 346,946	$ 296,271
Commission's covered payroll	121,643	121,127	120,641	123,365	121,085	121,579
Commission's proportionate share of the net pension liability as a percentage of its covered payroll	270.62%	318.53%	272.80%	307.36%	286.53%	243.69%
Plan fiduciary net position as a percentage of the total pension liability	63.1%	56.4%	63.0%	57.8%	58.9%	64.8%

* The amounts presented for each fiscal year were determined as of the measurement date (12/31) that occurred within the Commission's fiscal year. The Commission adopted GASB Statement No. 68 on a prospective basis in fiscal year 2015; therefore, only the available years are presented in the above schedule.

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Schedule of Commission's Contributions –
Pennsylvania State Employees' Retirement System – Pension Fund (Unaudited)

Last 10 Fiscal Years*
(Dollar Amounts in Thousands)

	2020	2019	2018	2017	2016	2015
Contractually required contribution	$ 37,699	$ 37,771	$ 38,073	$ 33,303	$ 27,864	$ 22,588
Contributions in relation to the contractually required contribution	(37,699)	(37,771)	(38,073)	(33,303)	(27,864)	(22,588)
Contribution deficiency (excess)	$ -	$ -	$ -	$ -	$ -	$ -
Commission's covered payroll^	$ 120,107	$ 122,145	$ 122,654	$ 121,778	$ 121,060	$ 121,009
Contributions as a percentage of covered payroll	31.39%	30.92%	31.04%	27.35%	23.02%	18.67%

* The Commission adopted GASB Statement No. 68 on a prospective basis in fiscal year 2015; therefore, only the available years are presented in the above schedule.

^ Classes A5 and A6 became effective on January 1, 2019 and are now included in covered payroll due to the Hybrid plan including a pension fund contribution component.

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Schedule of Changes in the Commission's Net OPEB Liability
and Related Ratios (Unaudited)

Last 10 Fiscal Years*
(Dollar Amounts in Thousands)

Fiscal Year Ended	**05/31/20**	**05/31/19**
Measurement Date	**05/31/19**	**05/31/18**
Total OPEB Liability		
Service cost	$ 11,254	$ 10,926
Interest on total OPEB liability	26,371	25,431
Effect of economic/demographic gains or losses	8,487	(2,671)
Effect of assumptions changes or inputs	(4,358)	-
Benefit payments	(17,032)	(17,984)
Net change in total OPEB liability	24,722	15,702
Total OPEB liability, beginning	437,477	421,775
Total OPEB liability, ending (a)	462,199	437,477
Plan fiduciary net position		
Employer contributions	46,056	28,171
Net investment income	6,789	34,322
Benefit payments	(17,032)	(17,984)
Administrative expenses	(2)	(11)
Net change in plan fiduciary net position	35,811	44,498
Plan fiduciary net position, beginning	424,543	380,045
Plan fiduciary net position, ending (b)	460,354	424,543
Commission's net OPEB liability, ending = (a) – (b)	$ 1,845	$ 12,934
Plan fiduciary net position as a % of total OPEB liability	99.6%	97.0%
Covered payroll	$ 119,730	$ 119,391
Commission's net OPEB liability as a % of covered payroll	1.5%	10.8%

* The Commission adopted GASB Statement No. 75 in fiscal year 2019; therefore, only the available years are presented in the above schedule.

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Schedule of Commission Contributions to the Other Postemployment
Welfare Plan Program (Unaudited)

Last 10 Fiscal Years
(Dollar Amounts in Thousands)

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Actuarially determined contribution	$ 11,729	$ 13,970	$ 8,384	$ 11,121	$ 11,368	$ 12,683	$ 18,353	$ 23,423	$ 28,821	$ 26,703
Contributions in relation to the actuarially determined contribution	11,730	46,056	28,171	28,176	28,143	46,180	44,228	54,768	54,397	28,505
Contribution deficiency (excess)	$ (1)	$ (32,086)	$ (19,787)	$ (17,055)	$ (16,775)	$ (33,497)	$ (25,875)	$ (31,345)	$ (25,576)	$ (1,802)
Covered-employee payroll	$ 118,560	$ 119,730	$ 119,391	$ 117,818	$ 117,391	$ 116,829	$ 118,507	$ 116,716	$ 112,408	$ 111,694
Contributions as a % of covered-employee payroll	9.9%	38.5%	23.6%	23.9%	24.0%	39.5%	37.3%	46.9%	48.4%	25.5%

Notes to Schedule

Full actuarial valuations are performed every other year.

The Actuarially Determined Contribution for the fiscal year ended May 31, 2020 was calculated based on a May 31, 2019 full valuation. See Note 11 to the financial statements for more information.

The Actuarially Determined Contribution for the fiscal year ended May 31, 2019 was calculated based on a June 1, 2017 full valuation and then projected forward to the May 31, 2018 measurement date.

The Actuarially Determined Contribution (formerly Annual Required Contribution) for the fiscal year ended May 31, 2018 was calculated based on a January 1, 2017 interim valuation that was rolled forward from the January 1, 2016 full valuation.

The Actuarially Determined Contribution (formerly Annual Required Contribution) for the fiscal year ended May 31, 2017 was calculated based on a January 1, 2016 full valuation.

Notes to Schedule *(continued)*

A summary of the actuarial methods and assumptions used in the full valuations are as follows:

	June 1, 2017 Full Valuation	**January 1, 2016 Full Valuation**
Actuarial cost method	Entry Age Normal	Projected-unit credit
Discount rate	6.0%	6.5%
Rate of return on assets	6.0%	6.5%
Inflation rate	2.3%	2.5%
Amortization method	Level dollar amortization over a period of 10 years	Level dollar
Amortization period		
▪ - UAAL as of March 1, 2012	N/A	10 years (closed)
▪ - Subsequent changes	N/A	10 years (open)
Asset valuation method	Market value plus receivable contributions made attributable to a prior fiscal year	Fair value
Health cost trend rates	Varying rates between 4.3% and 6.3% for medical and pharmacy benefits. 4.0% for dental and vision benefits.	Varying rates between 4.6% and 6.2% for medical and pharmacy benefits. 4.0% for dental and vision benefits.
Salary increases	Union – 3.0%, Management – 3.3%	Not considered as OPEB benefits are not based upon pay.
Mortality	RPH-2014 total Dataset Mortality Tables adjusted to reflect Mortality Improvement Scale MP-2017 from 2006 base year and projected forward on a generational basis, with employee rates before benefit commencement and healthy annuitant rates after benefit commencement, and reflecting mortality improvements both before and after the valuation date.	RP-2000 Healthy Annuitant Mortality Table projected on a generational basis using Scale AA to allow for past and future improvements in mortality. The Employee table is used for pre-retirement. Rates vary by age and gender.

Other Significant Changes

The January 1, 2015 interim valuation used a discount rate of 6.5%. The January 1, 2014 and March 1, 2012 full valuations used a discount rate of 7.0%. The March 1, 2010 and 2008 full valuations used a discount rate of 8.0%. The discount rate and rate of return on assets were equal for all years noted.

OTHER SUPPLEMENTARY INFORMATION

For accounting purposes, the Commission maintains its records in three sections: Mainline, Oil Franchise, and Motor License. These sections are based on the types of revenues and the associated bond issues.

The Mainline section consists of income and expenses directly associated with the operations of the Turnpike System. In addition, all bonds pledged against this revenue source are included in this section.

The Oil Franchise section consists of revenues received from the Commission's allocation of the Commonwealth's Oil Company Franchise Tax. This revenue is pledged against the Oil Franchise Tax Debt as listed in Note 7 to the financial statements.

The Motor License section consists of an annual income of $28.0 million, which has been provided to the Commission pursuant to Section 20 of Act 3 of the Commonwealth of Pennsylvania. This income is pledged against the Motor License Registration Fee Debt as listed in Note 7 to the financial statements.

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Section Information *(continued)*
Schedule of Net Position

	May 31, 2020			
	Mainline	Oil Franchise	Motor License	Total
	(In Thousands)			
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES				
Current assets:				
Cash and cash equivalents	$ 198,564	$ -	$ -	$ 198,564
Investments	78,655	-	-	78,655
Accounts receivable	65,631	-	-	65,631
Accrued interest receivable	2,066	-	-	2,066
Inventories	24,685	-	-	24,685
Restricted current assets				
Cash and cash equivalents	545,031	148,780	13,955	707,766
Investments	295,525	28,984	17,077	341,586
Accounts receivable	-	3,180	-	3,180
Accrued interest receivable	11,148	3,745	156	15,049
Total current assets	1,221,305	184,689	31,188	1,437,182
Noncurrent assets				
Investments				
Investments	354,491	-	-	354,491
Investments restricted	556,700	275,631	33,118	865,449
Total investments	911,191	275,631	33,118	1,219,940
Capital assets not being depreciated				
Land and intangibles	425,643	-	-	425,643
Assets under construction	1,788,685	-	-	1,788,685
Capital assets being depreciated				
Buildings	983,739	-	-	983,739
Improvements other than buildings	151,066	-	-	151,066
Equipment	706,803	-	-	706,803
Infrastructure	8,946,265	-	-	8,946,265
Total capital assets before accumulated depreciation	13,002,201	-	-	13,002,201
Less: Accumulated depreciation	6,592,200	-	-	6,592,200
Total capital assets after accumulated depreciation	6,410,001	-	-	6,410,001
Other assets				
Prepaid bond insurance costs	4,763	18	1,094	5,875
Other assets	26,646	-	-	26,646
Total other assets	31,409	18	1,094	32,521
Total noncurrent assets	7,352,601	275,649	34,212	7,662,462
Total assets	8,573,906	460,338	65,400	9,099,644
Deferred outflows of resources from hedging derivatives	120,084	-	97,070	217,154
Deferred outflows of resources from refunding bonds	319,193	10,714	13,816	343,723
Deferred outflows of resources from pensions	37,837	-	-	37,837
Deferred outflows of resources from OPEB	34,446	-	-	34,446
Total deferred outflows of resources	511,560	10,714	110,886	633,160
Total assets and deferred outflows of resources	$ 9,085,466	$ 471,052	$ 176,286	$ 9,732,804

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Section Information *(continued)*
Schedule of Net Position *(continued)*

	May 31, 2020			
	Mainline	Oil Franchise	Motor License	Total
	(In Thousands)			
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES				
Current liabilities				
Accounts payable and accrued liabilities	$ 457,609	$ 56,597	$ 3,034	$ 517,240
Current portion of debt	545,615	18,720	9,545	573,880
Unearned income	90,369	-	-	90,369
Total current liabilities	1,093,593	75,317	12,579	1,181,489
Noncurrent liabilities				
Debt, less current portion, net of unamortized premium	12,884,059	1,138,797	360,164	14,383,020
Net pension liability	329,189	-	-	329,189
Net OPEB liability	1,845	-	-	1,845
Other noncurrent liabilities	252,023	(66)	103,704	355,661
Total noncurrent liabilities	13,467,116	1,138,731	463,868	15,069,715
Total liabilities	14,560,709	1,214,048	476,447	16,251,204
Deferred inflows of resources from service concession arrangements	106,450	-	-	106,450
Deferred inflows of resources from refunding bonds	9,829	1,805	-	11,634
Deferred inflows of resources from pensions	42,492	-	-	42,492
Deferred inflows of resources from OPEB	12,172	-	-	12,172
Total deferred inflows of resources	170,943	1,805	-	172,748
Total liabilities and deferred inflows of resources	14,731,652	1,215,853	476,447	16,423,952
NET POSITION				
Net investment in capital assets	564,948	(1,106,604)	(361,433)	(903,089)
Restricted for construction purposes	-	350,041	61,272	411,313
Restricted for debt service	30,857	11,762	-	42,619
Unrestricted	(6,241,991)	-	-	(6,241,991)
Total net position	$ (5,646,186)	$ (744,801)	$ (300,161)	$ (6,691,148)

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Section Information *(continued)*
Schedule of Revenues, Expenses, and Changes in Net Position

	May 31, 2020			
	Mainline	Oil Franchise	Motor License	Total
	(In Thousands)			
Operating revenues				
Net fares	$ 1,279,740	$ -	$ -	$ 1,279,740
Other	4,043	-	-	4,043
Total operating revenues	1,283,783	-	-	1,283,783
Operating expenses				
Cost of services	530,740	3,191	-	533,931
Depreciation	382,088	-	-	382,088
Total operating expenses	912,828	3,191	-	916,019
Operating income (loss)	370,955	(3,191)	-	367,764
Nonoperating revenues (expenses)				
Investment earnings	64,177	23,889	2,279	90,345
Other nonoperating revenues	18,091	4,602	-	22,693
Act 44 and Act 89 payments to PennDOT	(450,000)	-	-	(450,000)
Capital assets transferred to the Commonwealth	(294)	-	-	(294)
Interest and bond expense	(585,828)	(48,601)	(18,472)	(652,901)
Nonoperating expenses, net	(953,854)	(20,110)	(16,193)	(990,157)
Loss before capital contributions	(582,899)	(23,301)	(16,193)	(622,393)
Capital contributions	11,688	133,798	28,000	173,486
(Decrease) increase in net position	(571,211)	110,497	11,807	(448,907)
Net position at beginning of year, before restatement	(5,333,360)	(595,913)	(312,968)	(6,242,241)
Cumulative effect of change in accounting principle	-	-	-	-
Net position at beginning of year, as restated	(5,333,360)	(595,913)	(312,968)	(6,242,241)
Intersection transfers	258,385	(259,385)	1,000	-
Net position at end of year	$ (5,646,186)	$ (744,801)	$ (300,161)	$ (6,691,148)

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Section Information *(continued)*
Schedule of Cash Flows

	May 31, 2020			
	Mainline	**Oil Franchise**	**Motor License**	**Total**
		(In Thousands)		
CASH FLOWS FROM OPERATING ACTIVITIES				
Cash received from customer tolls and deposits	$ 1,275,558	$ -	$ -	$ 1,275,558
Cash payments for goods and services	(353,071)	(1,089)	-	(354,160)
Cash payments to employees	(159,661)	(2,100)	-	(161,761)
Cash received from other operating activities	16,572	-	-	16,572
Net cash provided by (used in) operating activities	779,398	(3,189)	-	776,209
CASH FLOWS FROM INVESTING ACTIVITIES				
Proceeds from sales and maturities of investments	3,212,888	957,528	8,694	4,179,110
Interest received on investments	27,965	6,560	1,134	35,659
Purchases of investments	(3,403,790)	(735,947)	(11,105)	(4,150,842)
Net cash (used in) provided by investing activities	(162,937)	228,141	(1,277)	63,927
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES				
Capital grants received from other governments	5,845	-	-	5,845
Proceeds from Motor License Registration fees	-	-	28,000	28,000
Proceeds from Oil Company Franchise Tax	-	141,665	-	141,665
Intersection cash transfer for debt defeasance	-	(1,000)	1,000	-
Construction and acquisition of capital assets	(404,188)	(255,237)	-	(659,425)
Proceeds from sale of capital assets	2,057	-	-	2,057
Payments for bond and swap expenses	(5,078)	(40)	-	(5,118)
Payments for debt refundings	(574,829)	-	-	(574,829)
Payments for debt maturities	(81,100)	(18,980)	(9,070)	(109,150)
Interest paid on debt	(257,098)	(54,807)	(18,806)	(330,711)
Interest subsidy from Build America Bonds	8,232	2,301	-	10,533
Swap suspension payments received	2,443	-	-	2,443
Proceeds from debt issuances	1,073,553	-	-	1,073,553
Net cash (used in) provided by capital and related financing activities	(230,163)	(186,098)	1,124	(415,137)
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES				
Cash payments to PennDOT	(900,000)	-	-	(900,000)
Payments for bond and swap expenses	(8,636)	-	-	(8,636)
Payments for cash defeasances	(51,164)	-	-	(51,164)
Payments for debt refundings	(481,197)	-	-	(481,197)
Payments for debt maturities	(76,905)	-	-	(76,905)
Interest paid on debt	(285,859)	-	-	(285,859)
Proceeds from debt issuances	1,285,176	-	-	1,285,176
Net cash used in noncapital financing activities	(518,585)	-	-	(518,585)
(Decrease) increase in cash and cash equivalents	(132,287)	38,854	(153)	(93,586)
Cash and cash equivalents at beginning of year	875,882	109,926	14,108	999,916
Cash and cash equivalents at end of year	$ 743,595	$ 148,780	$ 13,955	$ 906,330

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Section Information *(continued)*
Schedule of Cash Flows *(continued)*

	May 31, 2020			
	Mainline	Oil Franchise	Motor License	Total
		(In Thousands)		
Reconciliation of operating income (loss) to net cash provided by (used in) operating activities				
Operating income (loss)	$ 370,955	$ (3,191)	$ -	$ 367,764
Adjustments to reconcile operating income to net cash provided by operating activities				
Depreciation	382,088	-	-	382,088
Change in operating assets and liabilities				
Accounts receivable	12,989	-	-	12,989
Inventories	(5,395)	-	-	(5,395)
Other assets	(7)	-	-	(7)
Deferred outflows of resources from pensions	38,855	-	-	38,855
Deferred outflows of resources from OPEB	11,610	-	-	11,610
Accounts payable and accrued liabilities	12,650	2	-	12,652
Net pension liability	(56,632)	-	-	(56,632)
Net OPEB liability	(11,089)	-	-	(11,089)
Other noncurrent liabilities	1,456	-	-	1,456
Deferred inflows of resources from pensions	20,961	-	-	20,961
Deferred inflows of resources from OPEB	957	-	-	957
Net cash provided by (used in) operating activities	$ 779,398	$ (3,189)	$ -	$ 776,209
Reconciliation of cash and cash equivalents to the statements of net position				
Cash and cash equivalents	$ 198,564	$ -	$ -	$ 198,564
Restricted cash and cash equivalents	545,031	148,780	13,955	707,766
Total cash and cash equivalents	$ 743,595	$ 148,780	$ 13,955	$ 906,330

Noncash Investing, Capital and Related Financing and Noncapital Financing Activities

The Commission recorded a net increase of $50.7 million in the fair value of its investments not reported as cash equivalents for the year ended May 31, 2020. Increases by section were: Mainline, $32.3 million; Oil Franchise, $17.3 million and Motor License $1.1 million.

The Commission recorded $57.7 million for the amortization of bond premium for the year ended May 31, 2020. Amortization by section was: Mainline, $49.6 million; Oil Franchise, $7.1 million and Motor License, $1.0 million.

As indicated in Note 7 to the financial statements (Debt), the Commission refunded and cash defeased various bonds in fiscal year 2020. The fiscal year 2020 refundings and cash defeasances resulted in a $19.1 million reclassification from Mainline bond premiums (discounts) to deferred outflows of resources from refunding bonds and a $41.7 million reclassification from Mainline bond premiums (discounts) to deferred inflows of resources from refundings. Additionally, the Commission recorded $40.7 million for the amortization of deferred outflows/inflows of resources from refunding bonds for the year ended May 31, 2020. Amortization by section was: Mainline, $39.3 million; Oil Franchise, $0.5 million and Motor License, $0.9 million.

The Commission recorded $0.3 million for the amortization of prepaid bond insurance costs for the year ended May 31, 2020. Amortization by section was: Mainline, $0.2 million and Motor License, $0.1 million.

Noncash Investing, Capital and Related Financing and Noncapital Financing Activities *(continued)*

The Commission recorded an interest expense reduction of $3.2 million in the Mainline section and $0.2 million in the Motor License section for the year ended May 31, 2020 related to GASB Statement No. 53 entries.

The Commission recognized total capital contributions of $173.5 million for fiscal year ended May 31, 2020. Cash received of $175.5 million for fiscal year ended May 31, 2020 is reported in the capital and related financing activities of this schedule. The $2.0 million difference between capital contributions and cash received is the result of a $7.8 million net decrease in Oil Franchise receivables related to these capital contributions and a $5.8 million Mainline noncash capital contribution related to capital assets provided by service plaza operators. The Commission entered into agreements with a food and fuel provider to totally reconstruct the service plazas; the service plaza operators provide the capital for the reconstruction in exchange for lower rental rates. See Note 2 to the financial statements for further discussion on capital contributions and Note 6 to the financial statements for further discussion on the service plazas.

During fiscal year 2020, the Commission transferred land with a book value of $0.3 million from the Mainline section to the PA Game Commission.

The Commission records intersection activity related to revenue, expense, asset and liability transfers between its sections. Some of the intersection entries are related to cash transfers; others are noncash transfers as required. Net intersection transfers for the year ended May 31, 2020 were: to Mainline, $258.4 million; from Oil Franchise, $259.4 million; and to Motor License, $1.0 million.

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Section Information *(continued)*
Schedule of Net Position

	May 31, 2019			
	Mainline	Oil Franchise	Motor License	Total
	(In Thousands)			
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES				
Current assets:				
Cash and cash equivalents	$ 192,784	$ -	$ -	$ 192,784
Investments	93,666	-	-	93,666
Accounts receivable	78,619	-	-	78,619
Accrued interest receivable	1,712	-	-	1,712
Inventories	19,290	-	-	19,290
Restricted current assets				
Cash and cash equivalents	683,098	109,926	14,108	807,132
Investments	161,681	359,886	-	521,567
Accounts receivable	-	11,047	-	11,047
Accrued interest receivable	2,260	1,100	178	3,538
Total current assets	1,233,110	481,959	14,286	1,729,355
Noncurrent assets				
Investments				
Investments	363,526	-	-	363,526
Investments restricted	433,456	151,925	46,618	631,999
Total investments	796,982	151,925	46,618	995,525
Capital assets not being depreciated				
Land and intangibles	405,643	-	-	405,643
Assets under construction	1,490,161	-	-	1,490,161
Capital assets being depreciated				
Buildings	981,115	-	-	981,115
Improvements other than buildings	150,306	-	-	150,306
Equipment	642,785	-	-	642,785
Infrastructure	9,044,067	-	-	9,044,067
Total capital assets before accumulated depreciation	12,714,077	-	-	12,714,077
Less: Accumulated depreciation	6,574,079	-	-	6,574,079
Total capital assets after accumulated depreciation	6,139,998	-	-	6,139,998
Other assets				
Prepaid bond insurance costs	3,025	24	1,163	4,212
Other assets	29,611	-	-	29,611
Total other assets	32,636	24	1,163	33,823
Total noncurrent assets	6,969,616	151,949	47,781	7,169,346
Total assets	8,202,726	633,908	62,067	8,898,701
Deferred outflows of resources from hedging derivatives	55,544	-	70,976	126,520
Deferred outflows of resources from refunding bonds	345,452	11,636	14,749	371,837
Deferred outflows of resources from pensions	76,692	-	-	76,692
Deferred outflows of resources from OPEB	46,056	-	-	46,056
Total deferred outflows of resources	523,744	11,636	85,725	621,105
Total assets and deferred outflows of resources	$ 8,726,470	$ 645,544	$ 147,792	$ 9,519,806

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Section Information *(continued)*
Schedule of Net Position *(continued)*

	May 31, 2019			
	Mainline	Oil Franchise	Motor License	Total
	(In Thousands)			
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES				
Current liabilities				
Accounts payable and accrued liabilities	$ 455,024	$ 56,883	$ 3,190	$ 515,097
Act 44 and Act 89 payments due to PennDOT	450,000	-	-	450,000
Current portion of debt	297,155	18,980	9,070	325,205
Unearned income	77,632	-	-	77,632
Total current liabilities	1,279,811	75,863	12,260	1,367,934
Noncurrent liabilities				
Debt, less current portion, net of unamortized premium	12,057,400	1,163,322	370,682	13,591,404
Net pension liability	385,821	-	-	385,821
Net OPEB liability	12,934	-	-	12,934
Other noncurrent liabilities	172,279	-	77,818	250,097
Total noncurrent liabilities	12,628,434	1,163,322	448,500	14,240,256
Total liabilities	13,908,245	1,239,185	460,760	15,608,190
Deferred inflows of resources from service concession arrangements	115,266	-	-	115,266
Deferred inflows of resources from refunding bonds	3,573	2,272	-	5,845
Deferred inflows of resources from pensions	21,531	-	-	21,531
Deferred inflows of resources from OPEB	11,215	-	-	11,215
Total deferred inflows of resources	151,585	2,272	-	153,857
Total liabilities and deferred inflows of resources	14,059,830	1,241,457	460,760	15,762,047
NET POSITION				
Net investment in capital assets	628,723	(881,250)	(370,682)	(623,209)
Restricted for construction purposes	-	273,351	57,714	331,065
Restricted for debt service	39,550	11,986	-	51,536
Unrestricted	(6,001,633)	-	-	(6,001,633)
Total net position	$ (5,333,360)	$ (595,913)	$ (312,968)	$ (6,242,241)

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Section Information *(continued)*
Schedule of Revenues, Expenses, and Changes in Net Position

	May 31, 2019			
	Mainline	**Oil Franchise**	**Motor License**	**Total**
	(In Thousands)			
Operating revenues				
Net fares	$ 1,327,031	$ -	$ -	$ 1,327,031
Other	9,574	-	-	9,574
Total operating revenues	1,336,605	-	-	1,336,605
Operating expenses				
Cost of services	506,840	2,913	-	509,753
Depreciation	384,104	-	-	384,104
Total operating expenses	890,944	2,913	-	893,857
Operating income (loss)	445,661	(2,913)	-	442,748
Nonoperating revenues (expenses)				
Investment earnings	58,166	22,900	2,006	83,072
Other nonoperating revenues	17,984	4,588	-	22,572
Act 44 and Act 89 payments to PennDOT	(450,000)	-	-	(450,000)
Capital assets transferred to PennDOT	(162,982)	-	-	(162,982)
Interest and bond expense	(548,310)	(51,478)	(20,796)	(620,584)
Nonoperating expenses, net	(1,085,142)	(23,990)	(18,790)	(1,127,922)
Loss before capital contributions	(639,481)	(26,903)	(18,790)	(685,174)
Capital contributions	59,543	141,843	28,000	229,386
(Decrease) increase in net position	(579,938)	114,940	9,210	(455,788)
Net position at beginning of year, before restatement	(4,829,048)	(476,120)	(333,594)	(5,638,762)
Cumulative effect of change in accounting principle	(147,691)	-	-	(147,691)
Net position at beginning of year, as restated	(4,976,739)	(476,120)	(333,594)	(5,786,453)
Intersection transfers	223,317	(234,733)	11,416	-
Net position at end of year	$ (5,333,360)	$ (595,913)	$ (312,968)	$ (6,242,241)

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Section Information *(continued)*
Schedule of Cash Flows

	May 31, 2019			
	Mainline	Oil Franchise	Motor License	Total
		(In Thousands)		
CASH FLOWS FROM OPERATING ACTIVITIES				
Cash received from customer tolls and deposits	$ 1,315,498	$ -	$ -	$ 1,315,498
Cash payments for goods and services	(364,122)	(905)	-	(365,027)
Cash payments to employees	(171,498)	(1,769)	-	(173,267)
Cash received from other operating activities	18,605	-	-	18,605
Net cash provided by (used in) operating activities	798,483	(2,674)	-	795,809
CASH FLOWS FROM INVESTING ACTIVITIES				
Proceeds from sales and maturities of investments	3,847,693	1,154,849	33,341	5,035,883
Interest received on investments	24,903	5,475	924	31,302
Purchases of investments	(4,039,502)	(1,533,154)	(45,214)	(5,617,870)
Net cash used in investing activities	(166,906)	(372,830)	(10,949)	(550,685)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES				
Capital grants received from other governments	59,858	-	-	59,858
Proceeds from Motor License Registration fees	-	-	28,000	28,000
Proceeds from Oil Company Franchise Tax	-	141,594	-	141,594
Intersection cash transfer for debt defeasance	-	(11,408)	11,408	-
Construction and acquisition of capital assets	(457,538)	(205,006)	-	(662,544)
Proceeds from sale of capital assets	1,449	-	-	1,449
Payments for bond and swap expenses	(4,487)	(2,381)	(461)	(7,329)
Payments for cash defeasances	(23,184)	-	(11,321)	(34,505)
Payments for debt refundings	(425,315)	-	-	(425,315)
Payments for debt maturities	(77,495)	(18,170)	(8,615)	(104,280)
Interest paid on debt	(249,713)	(43,202)	(20,585)	(313,500)
Interest subsidy from Build America Bonds	16,411	4,587	-	20,998
Swap suspension payments received	6,825	-	-	6,825
Proceeds from debt issuances	818,614	507,342	-	1,325,956
Net cash (used in) provided by capital and related financing activities	(334,575)	373,356	(1,574)	37,207
CASH FLOWS FROM NONCAPITAL FINANCING				
Payments for debt maturities	(120,085)	-	-	(120,085)
Interest paid on debt	(278,337)	-	-	(278,337)
Net cash used in noncapital financing activities	(398,422)	-	-	(398,422)
Decrease in cash and cash equivalents	(101,420)	(2,148)	(12,523)	(116,091)
Cash and cash equivalents at beginning of year	977,302	112,074	26,631	1,116,007
Cash and cash equivalents at end of year	$ 875,882	$ 109,926	$ 14,108	$ 999,916

	May 31, 2019			
	Mainline	Oil Franchise	Motor License	Total
	(In Thousands)			
Reconciliation of operating income (loss) to net cash provided by (used in) operating activities				
Operating income (loss)	$ 445,661	$ (2,913)	$ -	$ 442,748
Adjustments to reconcile operating income to net cash provided by operating activities				
Depreciation	384,104	-	-	384,104
Change in operating assets and liabilities				
Accounts receivable	(10,114)	-	-	(10,114)
Inventories	(1,894)	-	-	(1,894)
Other assets	22	-	-	22
Deferred outflows of resources from pensions	(29,990)	-	-	(29,990)
Deferred outflows of resources from OPEB	(17,885)	-	-	(17,885)
Accounts payable and accrued liabilities	4,898	239	-	5,137
Net pension liability	55,825	-	-	55,825
Net OPEB liability	(28,796)	-	-	(28,796)
Other noncurrent liabilities	(1,307)	-	-	(1,307)
Deferred inflows of resources from pensions	(13,256)	-	-	(13,256)
Deferred inflows of resources from OPEB	11,215	-	-	11,215
Net cash provided by (used in) operating activities	$ 798,483	$ (2,674)	$ -	$ 795,809
Reconciliation of cash and cash equivalents to the statements of net position				
Cash and cash equivalents	$ 192,784	$ -	$ -	$ 192,784
Restricted cash and cash equivalents	683,098	109,926	14,108	807,132
Total cash and cash equivalents	$ 875,882	$ 109,926	$ 14,108	$ 999,916

Noncash Investing, Capital and Related Financing and Noncapital Financing Activities

The Commission recorded a net increase of $44.1 million in the fair value of its investments not reported as cash equivalents for the year ended May 31, 2019. Increases by section were: Mainline, $26.6 million; Oil Franchise, $16.4 million and Motor License $1.1 million.

The Commission recorded $56.6 million for the amortization of bond premium for the year ended May 31, 2019. Amortization by section was: Mainline, $44.3 million; Oil Franchise, $7.2 million and Motor License, $5.1 million.

As indicated in Note 7 to the financial statements (Debt), the Commission refunded and cash defeased various bonds in fiscal year 2019. The fiscal year 2019 refundings and cash defeasances resulted in a $1.2 million reclassification (Mainline, $0.5 million; and Motor License $0.7 million) from bond premiums (discounts) to deferred outflows of resources from refunding bonds and a $0.6 million reclassification from Mainline bond premiums (discounts) to deferred inflows of resources from refundings. Additionally, the Commission recorded $45.3 million for the amortization of deferred outflows/inflows of resources from refunding bonds for the year ended May 31, 2019. Amortization by section was: Mainline, $39.7 million; Oil Franchise, $0.4 million and Motor License, $5.2 million.

The Commission recorded $0.6 million for the amortization of prepaid bond insurance costs for the year ended May 31, 2019. Amortization by section was: Mainline, $0.4 million and Motor License, $0.2 million.

Noncash Investing, Capital and Related Financing and Noncapital Financing Activities *(continued)*

The Commission recorded an interest expense reduction of $2.8 million in the Mainline section and $0.2 million in the Motor License section for the year ended May 31, 2019 related to GASB Statement No. 53 entries.

The Commission recognized total capital contributions of $229.4 million for fiscal year ended May 31, 2019. Cash received of $229.5 million for fiscal year ended May 31, 2019 is reported in the capital and related financing activities of this schedule. The $0.1 million difference between capital contributions and cash received is the result of a $5.9 million net decrease (Mainline section $6.1 million decrease; Oil Franchise section $0.2 million increase) in receivables related to these capital contributions and a $5.8 million Mainline noncash capital contribution related to capital assets provided by service plaza operators. The Commission entered into agreements with a food and fuel provider to totally reconstruct the service plazas; the service plaza operators provide the capital for the reconstruction in exchange for lower rental rates. See Note 2 to the financial statements for further discussion on capital contributions and Note 6 to the financial statements for further discussion on the service plazas.

The Commission constructed ramps to connect the Turnpike Mainline with I-95 as part of its I-95 Interchange Project. (See the MD&A section of these financial statements for further discussion on this project.) The ownership, of these ramp assets, was transferred from the Mainline section to PennDOT when the project was completed and open to traffic in September 2018. The net book value of the ramp assets transferred to PennDOT during the fiscal year ended May 31, 2019 was $163.0 million.

The Commission records intersection activity related to revenue, expense, asset and liability transfers between its sections. Some of the intersection entries are related to cash transfers; others are noncash transfers as required. Net intersection transfers for the year ended May 31, 2019 were: to Mainline, $223.3 million; from Oil Franchise, $234.7 million; and to Motor License, $11.4 million.

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Section Information *(continued)*
Schedules of Cost of Services Detail

The following tables provide additional detail for the costs of services reported in the statements of revenues, expenses, and changes in net position.

Fiscal Year Ended May 31, 2020

	Mainline Operating	Mainline Capital	Total Mainline	Oil Franchise	Motor License	Total
General and administrative	$ 52,122	$ 126,510	$ 178,632	$ 1,935	$ -	$ 180,567
Traffic engineering and operations	3,162	2,757	5,919	-	-	5,919
Service centers	41,972	-	41,972	-	-	41,972
Employee benefits	91,161	13,046	104,207	1,256	-	105,463
Toll collection	58,129	1,023	59,152	-	-	59,152
Maintenance	64,636	1,448	66,084	-	-	66,084
Facilities and energy mgmt. operations	11,344	9,792	21,136	-	-	21,136
Turnpike patrol	53,638	-	53,638	-	-	53,638
Total cost of services	$ 376,164	$ 154,576	$ 530,740	$ 3,191	$ -	$ 533,931

Fiscal Year Ended May 31, 2019

	Mainline Operating	Mainline Capital	Total Mainline	Oil Franchise	Motor License	Total
General and administrative	$ 45,281	$ 97,020	$ 142,301	$ 1,696	$ -	$ 143,997
Traffic engineering and operations	3,262	2,593	5,855	-	-	5,855
Service centers	38,703	-	38,703	-	-	38,703
Employee benefits	96,993	12,883	109,876	1,217	-	111,093
Toll collection	58,200	2,125	60,325	-	-	60,325
Maintenance	73,110	1,522	74,632	-	-	74,632
Facilities and energy mgmt. operations	11,522	14,194	25,716	-	-	25,716
Turnpike patrol	49,432	-	49,432	-	-	49,432
Total cost of services	$ 376,503	$ 130,337	$ 506,840	$ 2,913	$ -	$ 509,753

APPENDIX C

SUMMARY OF CERTAIN PROVISIONS OF THE SENIOR INDENTURE

APPENDIX C

SUMMARY OF CERTAIN PROVISIONS OF THE SENIOR INDENTURE

The following sets forth the definitions derived from the Senior Indenture (including certain definitions from Supplemental Indenture No. 57) concerning the Senior Revenue Bonds and the operation of the Senior Indenture. This summary of such terms does not purport to be complete or definitive and is subject to all of the terms and provisions of the Senior Indenture, a copy of which will be available at the corporate trust office of U.S. Bank National Association, as the trustee under the Senior Indenture (the "Trustee"). Any references to "principal amount" shall mean the principal amount of any Senior Revenue Bonds plus the accreted amount on any Senior Revenue Bond which constitutes a capital appreciation or similar bond.

DEFINITIONS OF CERTAIN TERMS

In addition to words and terms elsewhere defined in this Official Statement or the Senior Indenture, the following words and terms as used in this Appendix C and the Senior Indenture shall have the following meanings unless the context clearly indicates otherwise:

"Additional Bonds" means the Senior Revenue Bonds of any series authorized to be issued under the Senior Indenture.

"Annual Debt Service" means (i) the amount of principal and interest paid or payable with respect to Bonds in a Fiscal Year plus (ii) Reimbursement Obligations paid or payable by the Commission in such Fiscal Year (but only to the extent they are not duplicative of such principal and interest), plus (iii) the amounts, if any, paid or payable by the Commission in such Fiscal Year with respect to Approved Swap Agreements, minus (iv) the amounts, if any, paid or payable to the Commission in such Fiscal Year with respect to Approved Swap Agreements, provided that the difference between the amounts described in clauses (iii) and (iv) shall be included only to the extent that such difference would not be recognized as a result of the application of the assumptions set forth below. The following assumptions shall be used to determine the Annual Debt Service becoming due in any Fiscal Year: (a) in determining the principal amount paid or payable with respect to Bonds or Reimbursement Obligations in each Fiscal Year, payment shall be assumed to be made in accordance with any amortization schedule established for such Indebtedness, including amounts paid or payable pursuant to any mandatory redemption schedule for such Indebtedness; (b) if any of the Indebtedness or proposed Indebtedness constitutes Balloon Indebtedness, then such amounts thereof as constitute Balloon Indebtedness shall be treated as if such Indebtedness is to be amortized in substantially equal annual installments of principal and interest over a term of 25 years from the date of issuance of such Indebtedness; anything to the contrary in the Senior Indenture notwithstanding, during the year preceding the final maturity date of such Indebtedness, all of the principal thereof shall be considered to be due on such maturity date unless the Commission provides to the Trustee a certificate of a Financial Consultant certifying that, in its judgment, the Commission will be able to refinance such Balloon Indebtedness, in which event the Balloon

Indebtedness shall be amortized over the term of such refinancing and shall bear the interest rate specified in the certificate of the Financial Consultant; (c) if any of the Indebtedness or proposed Indebtedness constitutes Variable Rate Indebtedness, then interest in future periods shall be based on the Assumed Variable Rate; (d) termination or similar payments under an Approved Swap Agreement shall not be taken into account in any calculation of Annual Debt Service; and (e) if any cash subsidy payments (the "Subsidy Payments") from the United States Treasury pursuant to Section 54AA or 6431 of the Code (as such Sections were added by Section 1531 of the American Recovery and Reinvestment Act of 2009 (Pub. L. 111-5) pertaining to "Build America Bonds") are scheduled to be received by the Commission with respect to any Bonds which are eligible for such Subsidy Payments, each of the Subsidy Payments may be deducted from the interest payable on such Bonds in the period in which such Subsidy Payment is scheduled to be received.

"Applicable Long-Term Indebtedness" means and includes Senior Revenue Bonds, Additional Bonds, Reimbursement Obligations and obligations of the Commission under Approved Swap Agreements, to the extent the same constitute Long-Term Indebtedness, and excludes Subordinate Indebtedness.

"Approved Swap Agreements" means a swap agreement the payments to be made and received by the Commission under which are taken into account in the calculation of Annual Debt Service under the Senior Indenture and for which the Commission has filed certain documents with the Trustee.

"Assumed Variable Rate" means in the case of (a) Outstanding Variable Rate Indebtedness, the average interest rate on such Indebtedness for the most recently completed 12-month period; and (b) proposed Variable Rate Indebtedness, (1) which will, in the opinion of Bond Counsel delivered at the time of the issuance thereof be excluded from gross income for federal income tax purposes, the average of the Bond Market Association Swap Index ("BMA Index") for the 12 months ending 7 days preceding the date of calculation plus 100 basis points, or (2) in the case of Bonds not described in clause (1), the London Interbank Offered Rate ("LIBOR") most closely resembling the reset period for the Variable Rate Indebtedness plus 100 basis points; provided that if the BMA Index or LIBOR shall cease to be published, the index to be used in its place shall be that index which the Commission in consultation with the Financial Consultant determines most closely replicates such index, as set forth in a certificate of a Commission Official filed with the Trustee.

"Balloon Indebtedness" means Long-Term Indebtedness of which 25% or more of the principal matures in the same Fiscal Year and is not required by the documents pursuant to which such Indebtedness was issued to be amortized by payment or redemption prior to that Fiscal Year, provided that such Indebtedness will not constitute Balloon Indebtedness if the Trustee is provided a certificate of a Commission Official certifying that such Indebtedness is not to be treated as Balloon Indebtedness (because, by way of example, such Indebtedness is intended to serve as "wrap around" Indebtedness).

“Bank” means as to any particular Series of Bonds, each Person (other than a bond insurer) providing a letter of credit, a line of credit, a guaranty or another credit or liquidity enhancement facility as designated in the Supplemental Indenture providing for the issuance of such Bonds.

"Bonds" or "Senior Revenue Bonds" means Bonds outstanding under the Prior Indenture and indebtedness of any kind or class, including bonds, notes, bond anticipation notes, commercial paper and other obligations, issued as Additional Bonds under the Senior Indenture, other than Additional Bonds issued as Subordinated Indebtedness.

"Bond Insurer" means as to any particular maturity or any particular series of Bonds, the Person undertaking to insure such Bonds as designated in a Supplemental Indenture providing for the issuance of such Bonds.

“Bond Owner,” “Bondholder,” “Holder,” “Owner” or “Registered Owner” (or the lower case version of the same) means the Person in whose name any Bond or Bonds are registered on the books maintained by the Bond Registrar.

“Bond Register” means the register maintained pursuant to the applicable provisions of the Senior Indenture.

“Bond Registrar” means with respect to any series of Bonds, that Person which maintains the bond register or such other entity designated by the Bond Registrar to serve such function and initially shall be the Trustee.

“Business Day” means, with respect to the 2020B Bonds, a day other than (i) a Saturday and Sunday, (ii) a day on which the Trustee, Paying Agent or banks and trust companies in New York, New York are authorized or required to remain closed, or (iii) a day on which the New York Stock Exchange is closed.

“Chief Engineer” means the employee of the Commission designated its “Chief Engineer” or any successor title.

“Commission Official” means any commissioner, director, officer or employee of the Commission authorized to perform specific acts or duties by resolution duly adopted by the Commission.

“Construction Fund” – means the fund so designated and created by the Senior Indenture.

“Consultant” means a Person who shall be independent, appointed by the Commission as needed, qualified and having a nationwide and favorable reputation for skill and experience in such work for which the Consultant was appointed. In those situations in which a Consultant is appointed to survey risks and to recommend insurance coverage, such Consultant may be a broker or agent with whom the Commission transacts business.

"Consulting Engineer" means the engineer or engineering firm or corporation at the time employed by the Commission under the provisions of the Senior Indenture having a national reputation for skill and experience in such work to perform any functions of the consulting engineer under the Senior Indenture.

"Credit Facility" means any letter of credit, line of credit, standby letter of credit, indemnity or surety insurance policy or agreement to purchase a debt obligation or any similar extension of credit, credit enhancement or liquidity support obtained by the Commission from a responsible financial or insurance institution, to provide for or to secure payment of principal and purchase price of, and/or interest on Senior Revenue Bonds pursuant to the provisions of a Supplemental Indenture under which such Senior Revenue Bonds are issued. The use of such definition is not intended to preclude the Commission from providing the credit or liquidity support with respect to one or more series of Senior Revenue Bonds directly rather than through a financial or insurance institution.

"Current Expenses" means the Commission's reasonable and necessary current expenses of maintenance, repair and operation of the System, including, without limiting the generality of the foregoing, all premiums for insurance and payments into any self-insurance reserve fund, all administrative and engineering expenses relating to maintenance, repair and operation of the System, fees and expenses of the Trustee and of the Paying Agents, periodic fees or charges to maintain a Debt Service Reserve Fund security, legal expenses and any other expenses required to be paid by the Commission as shown in the Annual Operating Budget for the System.

"Debt Service Fund" means the fund so designated and created by the Senior Indenture.

"Debt Service Reserve Fund" means the fund so designated and created by the Senior Indenture.

"Debt Service Reserve Fund Bonds" means the Long-Term Indebtedness specified by the Commission in the Senior Indenture or any Supplemental Indenture that is secured by the Debt Service Reserve Fund as described in the Senior Indenture.

"Debt Service Reserve Requirement" means the amount equal to the Maximum Annual Debt Service on account of all the Debt Service Reserve Fund Bonds.

"Defaulted Interest" means, with respect to any 2020B Bonds, interest thereon which is payable but not paid on the date due.

"Defeasance Obligations" or "Defeasance Securities" means

(a) Cash,

(b) Government Obligations,

(c) Government Obligations which have been stripped by the U.S. Treasury and CATS, TIGRS and similar securities,

(d) Resolution Funding Corp. strips which have been stripped by the Federal Reserve Bank of New York,

(e) Pre-refunded obligations of a state or municipality rated in the highest rating category by the Rating Agency, and

(f) Obligations issued by the following agencies which are backed by the full faith and credit of the U.S.:

(1) Farmers Home Administration
Certificates of beneficial ownership
(2) Federal Financing Bank
(3) General Services Administration
Participation certificates
(4) U.S. Maritime Administration
Guaranteed Title XI financing
(5) U.S. Department of Housing and Urban Development
Project Notes
Local Authority Bonds
New Communities Debentures – U.S. government guaranteed debentures
(6) U.S. Public Housing Notes and Bonds – U.S. government guaranteed public housing notes and bonds.

"Depositary" means a bank or trust company designated as such by the Commission to receive moneys under the provisions of the Senior Indenture and approved by the Trustee, and shall include the Trustee.

"DSRF Security" – means a surety bond, an insurance policy, a letter of credit or similar financial instrument satisfactory to the Rating Agency payable to the Trustee for the benefit of the Bondholders in an amount equal to the difference between the Debt Service Reserve Requirement and the amounts then on deposit in the Debt Service Reserve Fund.

"Event of Bankruptcy" -- means the filing of a petition in bankruptcy (or other commencement of a bankruptcy or similar proceedings) by or against the Commission as debtor, under Bankruptcy Law.

"Event of Default" means those events specified under "THE SENIOR INDENTURE-EVENTS OF DEFAULT" in this Appendix C and such other events specified in any Supplemental Indentures.

"Financial Consultant" means any financial advisor or firm of financial advisors of favorable national reputation for skill and experience in performing the duties for which a Financial Consultant is required to be employed pursuant to the provisions of the Senior Indenture and who is retained by the Commission as a Financial Consultant for the purposes of the Senior Indenture.

“Fiscal Year” means the period commencing on the first day of June and ending on the last day of May of the following year.

“Fitch” means Fitch, Inc., its successors and assigns, and, if such corporation shall for any reason no longer perform the functions of a securities rating agency, "Fitch" shall be deemed to refer to any other nationally recognized rating agency designated by the Commission.

“General Reserve Fund” – means the fund so designated and created by the Senior Indenture.

"Government Obligations" means (a) direct obligations of, or obligations the principal of and interest on which are unconditionally guaranteed as to full and timely payment by, the United States of America, (b) obligations issued by a Person controlled or supervised by and acting as an instrumentality of the United States of America, the payment of the principal of and interest on which is fully and unconditionally guaranteed as a full faith and credit obligation of the United States of America (including any securities described in clause (a) above issued or held in book-entry form in the name of the Trustee only on the books of the Department of Treasury of the United States of America), (c) any certificates or any other evidences of an ownership interest in obligations or specified portions thereof (which may consist of specified portions of the interest thereon) of the character described in clause (a) or (b) above, which obligations are held by a bank or trust company organized and existing under the laws of the United States of America or any state thereof in the capacity of custodian, (d) stripped obligations of interest issued by the Resolution Funding Corporation pursuant to the Financial Institutions Reform, Recovery and Enforcement Act of 1989 (“FIRREA”), the interest on which, to the extent not paid from other specified sources, is payable when due by the Secretary of the Treasury pursuant to FIRREA, and (e) obligations of any state or political subdivision thereof or any agency or instrumentality of such a state or political subdivision, provided that cash, obligations described in clause (a), (b), (c) or (d) above, or a combination thereof have been irrevocably pledged to and deposited into a segregated escrow account for the payment when due of the principal or redemption price of and interest on such obligations, and provided further that, at the time of purchase, such obligations are rated by the Rating Service in its highest rating category.

“Historical Debt Service Coverage Ratio” -- means for any period of time, the ratio determined by dividing Net Revenues for such period by the Annual Debt Service for all Applicable Long-Term Indebtedness which is Outstanding during such period.

“Historical Pro Forma Debt Service Coverage Ratio” -- means for any period of time, the ratio determined by dividing Net Revenues for such period by the Maximum Annual Debt Service for all Applicable Long-Term Indebtedness then Outstanding and the Applicable Long-Term Indebtedness proposed to be issued pursuant to the Senior Indenture pursuant to the provisions described under the section in the forepart of this Official Statement captioned “SECURITY FOR THE 2020B BONDS - Additional Bonds Test.”

“Immediate Notice” -- means notice transmitted by electronic means, in writing, by telecopier or other electronic means or by telephone (promptly confirmed in writing) and received by the Person to whom it was addressed.

“Indebtedness” means any obligation or debt incurred for money borrowed.

“Issuance Cost” means costs incurred by or on behalf of the Commission in connection with the issuance of Additional Bonds including, without limitation, the following: payment of financial, legal, accounting and appraisal fees and expenses, the Commission's fees and expenses attributable to the issuance of the Senior Revenue Bonds, the cost of printing, engraving and reproduction services, fees and expenses incurred in connection with any Credit Facility and any Approved Swap Obligation, legal fees and expenses for Bond Counsel, Commission's counsel, Trustee's counsel and Underwriter's counsel relating to the issuance of the Senior Revenue Bonds, the initial or acceptance fee of the Trustee, and all other fees, charges and expenses incurred in connection with the issuance of the Senior Revenue Bonds and the preparation of the Senior Indenture.

“Long-Term Indebtedness” means all Indebtedness, which is not (a) Short-Term Indebtedness or (b) Subordinated Indebtedness.

“Maximum Annual Debt Service” means, at any point in time the maximum amount of Annual Debt Service on all Applicable Long-Term Indebtedness, as required by the context (e.g., whether relating to all such Applicable Long-Term Indebtedness or only specified Applicable Long-Term Indebtedness) paid or payable in the then current or any future Fiscal Year.

“Moody’s” means Moody's Investors Service, a corporation organized and existing under the laws of the State of Delaware, its successors and their assigns, and, if such corporation shall for any reason no longer perform the functions of a securities rating agency, “Moody’s” shall be deemed to refer to any other nationally recognized rating agency designated by the Commission.

“Net Revenues” means the amount by which total Revenues exceed Current Expenses for any particular period.

“Other Revenues” means any funds received or payable to the Commission, other than Revenues, which the Commission chooses to include as security for Parity Obligations and/or Subordinated Indebtedness pursuant to a Supplemental Indenture.

“Original Senior Indenture” means the Indenture of Trust dated as of July 1, 1986 by and between the Commission and First Union Bank, as successor trustee to Fidelity Bank, National Association (the “Original Trustee”).

“Outstanding” or “outstanding” in connection with Senior Revenue Bonds -- means all Senior Revenue Bonds which have been authenticated and delivered under the Senior Indenture, except: (a) Senior Revenue Bonds theretofore cancelled or delivered to the Trustee for cancellation under the Senior Indenture; (b) Senior Revenue Bonds which are deemed to be no longer Outstanding in accordance with the Senior Indenture; and (c) Senior Revenue Bonds in substitution for which other Senior Revenue Bonds have been authenticated and delivered pursuant to the Senior Indenture. In determining whether the owners of a requisite aggregate principal amount of Senior Revenue Bonds Outstanding have concurred in any request, demand, authorization, direction, notice, consent or waiver under the provisions of the Senior Indenture, Senior Revenue Bonds which are held by or on behalf of the Commission (unless all of the Outstanding Senior Revenue Bonds are then owned by the Commission) shall be disregarded for the purpose of any such determination.

"Parity Obligations" includes Bonds and other obligations of the Commission owed to Secured Owners and excludes Subordinated Indebtedness.

"Parity Swap Agreement" means an Approved Swap Agreement the Commission's obligations under which are on parity with all Bonds and other Parity Obligations.

"Parity Swap Agreement Counterparty" means the counterparty to a Parity Swap Agreement with the Commission or with the Trustee.

"Paying Agent" means with respect to any series of Bonds, that Person appointed pursuant to the Senior Indenture to make payments to Bondholders of interest and/or principal pursuant to the terms of the Senior Indenture, which initially shall be the Trustee.

"Permitted Investments" means (to the extent permitted by law): (a) Government Obligations; (b) obligations issued or guaranteed as to full and timely payment of principal and interest by any agency or Person controlled or supervised by and acting as an instrumentality of the U.S., pursuant to authority granted by the U.S. Congress; (c) obligations of the Governmental National Mortgage Association, Farmers Home Administration, Federal Financing Bank, Federal Housing Administration, Maritime Administration and Public Housing Authorities, provided that the full and timely payment of the principal and interest on such obligations shall be unconditionally guaranteed by the U.S.; (d) obligations of the Federal Intermediate Credit Corporation and of the Federal National Mortgage Association; (e) obligations of the Federal Banks for Cooperation; (f) obligations of Federal Land Banks; (g) obligations of Federal Home Loan Banks; provided that the obligations described in clauses (c) through (g) above shall constitute Permitted Investments only to the extent that the Rating Agency has assigned a rating to such obligations which is not lower than the highest rating assigned by such Rating Agency to any series of comparable Bonds then Outstanding; (h) certificates of deposit of any bank, savings and loan or trust company organized under the laws of the U.S. or any state thereof, including the Trustee or any holder of the Bonds, provided that such certificates of deposit shall be fully collateralized (with a prior perfected security interest), to the extent they are not insured by the Federal Deposit Insurance Corporation, by Permitted Investments described in (a), (b), (c), (d), (e), (f) or (g) above having a market value at all times equal to the uninsured amount of such deposit; (i) money market funds registered under the Investment Company Act of 1940, whose shares are registered under the Securities Act of 1933, including funds for which the Trustee, its parent, its affiliates or its subsidiaries provide investment advisory or other management services, and which are rated by S&P, Moody's and Fitch in one of their two highest rating categories; (j) investment agreements (which term, for purposes of this clause, shall not include repurchase agreements) with a Qualified Financial Institution; (k) repurchase agreements with banks or primary government dealers reporting to the Federal Reserve Bank of New York ("Repurchasers"), including but not limited to the Trustee and any of its affiliates, provided that each such repurchase agreement results in transfer to the Trustee of legal and equitable title to, or the granting to the Trustee of a prior perfected security interest in, identified Permitted Investments described in (a), (b), (c), (d), (e), (f) or (g) above which are free and clear of any claims by third parties and are segregated in a custodial or trust account held either by the Trustee or by a third party (other than the Repurchaser) as the agent solely of, or in trust solely for the benefit of, the Trustee, provided that Government Obligations acquired pursuant to such repurchase agreements shall be valued at the lower of the then current market value of such Government Obligations or the repurchase price thereof set forth in the applicable repurchase agreement; (I) bonds or notes issued by any state or municipality which are rated by S&P, Moody's and Fitch in one of their two highest rating categories; (m) commercial paper rated in the highest short-term, note or commercial paper Rating Category by S&P, Moody's and Fitch; (n) any auction rate certificates which are rated by S&P, Moody's and Fitch in one of their two highest rating categories; (o) corporate bonds and medium term notes rated at least "AA-" by Moody's and S&P; (p) asset-backed securities rated in the highest rating category by Moody's and S&P; and (q) any other investment approved by the Commission for which confirmation is received from the Rating Agency that such investment will not adversely affect such Rating Agency's rating on such Bonds.

"Person" means an individual, public body, a corporation, a partnership, an association, a joint stock company, a trust and any unincorporated organization.

"Prior Senior Indenture" means the Original Senior Indenture as supplemented and amended.

"Project" means any improvements to the System or refundings which are authorized by the Enabling Acts or which may be hereafter authorized by law.

"Projected Annual Debt Service" means for any future period of time, shall equal the amount of Maximum Annual Debt Service on all Applicable Long-Term Indebtedness then Outstanding and on any Applicable Long-Term Indebtedness proposed to be issued.

"Projected Debt Service Coverage Ratio" means for the two Fiscal Years following the end of any period during which interest was fully capitalized on the Applicable Long-Term Indebtedness proposed to be issued, the ratio determined by dividing Projected Net Revenues for such period by the Projected Annual Debt Service for such period.

"Projected Net Revenues" means projected Net Revenues for the period in question, taking into account any revisions of the Tolls which have been approved by the Commission and which will be effective during such period and any additional Tolls which the Commission or the Consultant, as appropriate, estimates will be received by the Commission following the completion of any Project then being constructed or proposed to be constructed.

"Qualified Financial Institution" (a) any U.S. domestic institution which is a bank, trust company, national banking association or a corporation, including the Trustee and any of its affiliates, subject to registration with the Board of Governors of the Federal Reserve System under the Bank Holding Company Act of 1956, or a member of the National Association of Securities Dealers, Inc. whose unsecured obligations or uncollateralized long-term debt obligations have been assigned a rating within the two highest rating categories by the Rating Agency or which has issued a letter of credit, contract, agreement or surety bond in support of debt obligations which have been so rated; (b) an insurance company with a claims-paying ability or a corporation whose obligations are guaranteed by an insurance company (in the form of an insurance policy) or by an insurance holding company rated in the highest rating category by the Rating Agency or whose unsecured obligations or uncollateralized long-term debt obligations have been assigned a rating within the highest rating category by the Rating Agency; or (c) any banking institution whose unsecured obligations or uncollateralized long-term debt obligations have been assigned a rating within one of the two highest rating categories by the Rating Agency.

"Rate Covenant" means the requirement to establish and maintain a schedule of Tolls sufficient to provide the funds required pursuant to the Senior Indenture provisions described under "The Senior Indenture - Rate Covenant" in this Appendix C.

"Rating Agency" means Fitch, Moody's or S&P or such other nationally recognized securities rating agency as may be so designated in writing to the Trustee by a Commission Official.

"Rating Category" means each major rating classification established by the Rating Agency, determined without regard to gradations such as "1," "2" and "3" or '"plus" and "minus."

"Rebate Fund" means the fund so designated and authorized to be created by the Senior Indenture.

"Reimbursement Agreement" means an agreement between the Commission and one or more Banks pursuant to which, among other things, such Bank or Banks issue a Credit Facility with respect to Senior Revenue Bonds of one or more series and the Commission agrees to reimburse such Bank or Banks for any drawings made thereunder.

"Reimbursement Obligation" means an obligation of the Commission pursuant to a Reimbursement Agreement to repay any amounts drawn under a Credit Facility and to pay interest on such drawn amounts pursuant to such Reimbursement Agreement.

"Reserve Maintenance Fund" means the fund so designated and created by the Senior Indenture.

"Reserve Requirement Deposit" means, with respect to the 2020B Bonds, an amount sufficient to cause the Debt Service Reserve Fund Requirement of the Senior Indenture to be met taking into account the issuance of the 2020B Bonds on their date of issuance.

"Restated Indenture" means that certain Amended and Restated Trust Indenture originally dated as of July 1, 1986 and Amended and Restated as of March 1, 2001, between the Commission and the Trustee.

"Revenues" -- means (a) all Tolls received by or on behalf of the Commission from the System, (b) any other sources of revenues or funds of the Commission which the Commission chooses to include in the Trust Estate pursuant to a Supplemental Indenture, and (c) the interest and income earned on any fund or account where said interest or income is required to be credited to the Revenue Fund pursuant to the Senior Indenture. As more fully provided in the Senior Indenture, in the event the Commission receives advances or prepayments or otherwise operates or participates in a system in which funds are collected prior to the actual usage of the System, such funds shall not be deemed to be Revenues until the usage occurs or the funds are earned pursuant to the agreement under which the Commission receives such funds.

"Revenue Fund" – means the fund so designated and created by the Senior Indenture.

"S&P" -- Standard & Poor's, a division of McGraw-Hill, Inc., a corporation organized and existing under the laws of the State of New York, its successors and their assigns, and, if such corporation shall for any reason no longer perform the functions of a securities rating agency, "S&P" shall be deemed to refer to any other nationally recognized securities rating agency designated by the Commission.

"Secured Owner" – means each Person who is a Bondholder of any Bonds, each Parity Swap Agreement Counterparty providing a Parity Swap Agreement, each Bank providing a Credit Facility and each Bond Insurer providing a bond insurance policy with respect to a Parity Obligation.

"Securities Depository" means a Person that is registered as a clearing agency under Section 17A of the Securities Exchange Act of 1934 or whose business is confined to the performance of the functions of a clearing agency with respect to exempted securities, as defined in Section 3(a)(12) of such Act for the purposes of Section 17A thereof.

"Senior Indenture" means the Restated Indenture as amended and supplemented through the date of issue of the 2020B Bonds, including being supplemented by Supplemental Indenture No. 57 and as it may be further amended and supplemented from time to time.

"Series" means one or more Bonds issued at the same time, or sharing some other common term or characteristic, and designated as a separate series of Bonds.

"Short-Term Indebtedness" means all Indebtedness which matures in less than 365 days and is designated as Short-Term Indebtedness pursuant to the provisions described under "The Senior Indenture - Limitation on Issuance of Additional Bonds and Execution of Swap Agreements" in this Appendix C. In the event a Bank has extended a line of credit or the Commission has undertaken a commercial paper or similar program, only amounts actually borrowed under such line of credit or program and repayable in less than 365 days shall be considered Short-Term Indebtedness and the full amount of such commitment or program shall not be treated as Short-Term Indebtedness to the extent that such facility remains undrawn.

"Special Record Date" shall have the meaning set forth under the heading "The Senior Indenture-Defaulted Interest" in this Appendix C.

"Subordinated Indebtedness" means Indebtedness incurred pursuant to paragraph (c) of the section in the forepart of this Official Statement captioned "SECURITY FOR THE 2020B BONDS - Additional Bonds Test."

"Supplemental Indenture" means any Supplemental Indenture to (a) the Senior Indenture, now or hereafter duly authorized and entered into in accordance with the provisions of the Senior Indenture or (b) the Prior Senior Indenture, including any Supplemental Indenture pursuant to which (and only for so long as) bonds are outstanding thereunder.

"Swap Agreement" shall have the meaning set forth under the heading "The Senior Indenture-Approved and Parity Swap Obligations" in this Appendix C.

"System" is described in the forepart of this Official Statement under "PENNSYLVANIA TURNPIKE SYSTEM."

"Tender Indebtedness" means any Indebtedness or portion thereof: (a) the terms of which include (i) an option or an obligation on the part of the Secured Owner to tender all or a portion of such Indebtedness to the Commission, the Trustee, the Paying Agent or another fiduciary or agent for payment or purchase and (ii) a requirement on the part of the Commission to purchase or cause to be purchased such Indebtedness or portion thereof if properly presented; and (b) which is rated in either (i) one of the two highest long-term Rating Categories by the Rating Agency or (ii) the highest short-term, note or commercial paper Rating Category by the Rating Agency.

"Tolls" means all rates, rents, fees, charges, fines or other income derived by the Commission from vehicular usage of the System, and all rights to receive the same.

"Trust Estate" means (i) all Revenues, (ii) all monies deposited into accounts or funds created by the Senior Indenture and held by or on behalf of the Trustee (other than the Rebate Fund), (iii) any insurance proceeds and other moneys required to be deposited in the Senior Indenture, (iv) all payments received by the Commission pursuant to Parity Swap Agreements, and (v) all investment earnings on all moneys held in accounts and funds established by the Senior Indenture, other than the Rebate Fund.

"Trustee" -- means the Trustee at the time in question, whether the initial Trustee or a successor.

"U.S." -- means the United States of America.

"Variable Rate Indebtedness" means any Indebtedness the interest rate on which fluctuates from time to time subsequent to the time of incurrence, including, without limitation, "auction rate" Indebtedness, Tender Indebtedness, commercial paper Indebtedness which is intended to be reissued and refinanced periodically, or other forms of Indebtedness on which the interest fluctuates or is subject to being set or reset from time to time.

THE SENIOR INDENTURE

LIMITED OBLIGATIONS

The Bonds shall be limited obligations of the Commission, payable solely from the Trust Estate. The Bonds shall constitute a valid claim of the respective owners thereof against the Trust Estate, which is pledged to secure the payment of the principal of, redemption premium, if any, and interest on the Bonds, and which shall be utilized for no other purpose, except as expressly authorized in the Senior Indenture. The Bonds shall not constitute general obligations of the Commission and under no circumstances shall the Bonds be payable from, nor shall the holders thereof have any rightful claim to, any income, revenues, funds or assets of the Commission other than those pledged under the Senior Indenture as security for the payment of the Bonds.

ADDITIONAL BONDS

The Commission agrees in the Senior Indenture that it will not issue or incur any other Indebtedness having a parity lien on the Trust Estate except for Additional Bonds issued pursuant to the provisions described below and other Parity Obligations. Additional Bonds may be issued and the Trustee shall authenticate and deliver such Additional Bonds when there have been filed with the Trustee the following:

(a) A copy certified by a Commission Official of the resolution or resolutions of the Commission authorizing (1) the execution and delivery of a Supplemental Indenture providing for, among other things, the date, rate or rates of interest on, interest payment dates, maturity dates and redemption provisions of such Additional Bonds, and (2) the issuance, sale, execution and delivery of the Additional Bonds;

(b) An original executed counterpart of the Supplemental Indenture;

(c) An opinion or opinions of Bond Counsel, addressed to the Commission and the Trustee, to the effect that (1) issuance of the Additional Bonds is permitted under the Senior Indenture, (2) each of the Supplemental Indenture and the Additional Bonds has been duly authorized, executed and delivered and is a valid, binding and enforceable obligation of the Commission, subject to bankruptcy, equitable principles and other standard legal opinion exceptions and (3) subject to the last paragraph below under this sub-caption, interest on the Additional Bonds is not included in gross income for federal income tax purposes under the Code;

(d) A request and authorization of the Commission, signed by a Commission Official, to the Trustee to authenticate and deliver the Additional Bonds to such Person or persons named therein after confirmation of payment to the Trustee for the account of the Commission of a specified sum (which may include directions as to the disposition of such sum);

(e) A certificate of the Commission, signed by a Commission Official, that the Commission is not in default under the Senior Indenture and evidence satisfactory to the Trustee that, upon issuance of the Additional Bonds, amounts will be deposited in the Funds under the Senior Indenture adequate for the necessary balances therein after issuance of the Additional Bonds (including an amount sufficient to satisfy the Debt Service Reserve Requirement if the Additional Bonds constitute Debt Service Reserve Fund Bonds);

(f) A certificate of the Commission, signed by a Commission Official, identifying the Additional Bonds as Short-Term Indebtedness, Long-Term Indebtedness or Subordinated Indebtedness and demonstrating with reasonable detail that the applicable Senior Indenture provisions described in the section in the forepart of this Official Statement captioned "SECURITY FOR THE 2020B BONDS — Additional Bonds Test" have been met for the issuance of such Additional Bonds; and

(g) Such further documents, moneys and securities as are required by the provisions of the Supplemental Indenture.

Anything in the Senior Indenture to the contrary notwithstanding, Additional Bonds may bear interest which is included in gross income for federal income tax purposes under the Code, in which event provisions in the Senior Indenture requiring or referencing the exclusion of interest on Bonds of gross income for federal income tax purposes may be ignored or modified, as appropriate, as set forth in an opinion of Bond Counsel.

DEFAULTED INTEREST

Defaulted Interest with respect to any 2020B Bond shall cease to be payable to the Owner of such 2020B Bond on the relevant Record Date and shall be payable to the Owner in whose name such 2020B Bond is registered at the close of business on the Special Record Date for the payment of such Defaulted Interest, which Special Record Date shall be fixed in the following manner: the Commission shall notify the Trustee in writing of the amount of Defaulted Interest proposed to be paid on each 2020B Bond and the date of the proposed payment (which date shall be such as will enable the Trustee to comply with the provisions described in the next sentence hereof), and shall deposit with the Trustee at the time of such notice an amount of money equal to the aggregate amount proposed to be paid in respect of such Defaulted Interest or shall make arrangements satisfactory to the Trustee for such deposit prior to the date of the proposed payment; money deposited with the Trustee shall be held in trust for the benefit of the Owners of the 2020B Bonds entitled to such Defaulted Interest as provided in this paragraph. Following receipt of such funds the Trustee shall fix a Special Record Date for the payment of such Defaulted Interest which shall be not more than 15 days and not less than 10 days prior to the date of the proposed payment and not less than 10 days after the receipt by the Trustee of the notice of the proposed payment. The Trustee shall promptly notify the Commission of such Special Record Date and, in the name and at the expense of the Commission, shall cause notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor to be mailed, first-class postage prepaid, to each Owner of a 2020B Bond entitled to such notice at the address of such owner as it appears on the Bond Register not less than 10 days prior to such Special Record Date.

APPROVED AND PARITY SWAP OBLIGATIONS

The Commission may enter into one or more contracts having an interest rate, currency, cash-flow, or other basis desired by the Commission (a "Swap Agreement"), including, without limitation, interest rate swap agreements, currency swap agreements, forward payment conversion agreements, futures contracts, contracts providing for payments based on levels of or changes in interest rates, currency exchange rates, stock or other indices, or contracts to exchange cash flows or a series of payments, and contracts including, without limitation, interest rate floors or caps, options, puts or calls to hedge payment, currency rate, spread or similar exposure. In the event the Commission wishes the payments to be made and received by the Commission under the Swap Agreement to be taken into account in any calculation of Annual Debt Service under the Senior Indenture, the Commission shall file with the Trustee the following on or before entering into the Swap Agreement (in which event such Swap Agreement shall constitute an "Approved Swap Agreement"):

(a) A copy certified by a Commission Official of the resolution or resolutions of the Commission authorizing the execution and delivery of the Swap Agreement (no Supplemental Indenture being required unless the Commission determines it to be necessary or appropriate);

(b) An original executed counterpart of the Swap Agreement;

(c) An opinion of Bond Counsel addressed to the Commission and to the Trustee, to the effect that execution of the Swap Agreement is permitted under the laws of the Commonwealth and will not adversely affect the exclusion from gross income from interest on any Bonds for federal income tax purposes; provided that if the Swap Agreement relates to Bonds being issued and the Swap Agreement is entered into prior to the issuance of such Bonds, the portion of the opinion of Bond Counsel referring to tax-exempt status of the Bonds need not be delivered until such Bonds are issued;

(d) A certificate of the Commission, signed by a Commission Official, that the Commission is not under default under the Senior Indenture;

(e) Evidence that the execution of the Swap Agreement will not result in a reduction or withdrawal of the rating then assigned to any Bonds by the Rating Agency;

(f) Evidence that the provisions with respect to Approved Swap Agreements described in the section in the forepart of this Official Statement captioned "SECURITY FOR THE 2020B BONDS -- Additional Bonds Test" have been met; and

(g) Such further documents as are required by the Swap Agreement or Bond Counsel.

In the event the Commission wishes to enter into an Approved Swap Agreement and to have its obligations thereunder be on parity with all Bonds and other Parity Obligations, it shall file with the Trustee the items set forth above, together with a Supplemental Indenture granting such parity position (in which event, such Swap Agreement shall constitute a "Parity Swap Agreement"). Upon entering into a Parity Swap Agreement, unless otherwise provided in the Supplemental Indenture, the Commission shall pay to the Trustee for deposit into the Interest Account the net amount payable, if any, to the Parity Swap Agreement Counterparty as if such amounts were additional amounts of interest due; and the Trustee shall pay on behalf of the Commission to the Parity Swap Agreement Counterparty, to the extent required under the Parity Swap Agreement, amounts deposited in the Interest Account. Net amounts received by the Commission or the Trustee from the counterparty pursuant to a Parity Swap Agreement shall be deposited to the credit of the Interest Account or to such other account as designated by a Commission Official.

Amounts paid by or to the Commission pursuant to Approved Swap Agreements which do not constitute Parity Swap Agreements shall not be required to be made through the Trustee as described in the preceding paragraph (but shall be taken into account in calculation of Annual Debt Service as provided in the definition of such term).

REDEMPTION OF BONDS

The Bonds of any Series issued under the provisions of the Senior Indenture shall be subject to redemption, in whole or in part, and at such times and prices as may be provided in the Supplemental Indenture pursuant to which such Bonds are issued. The provisions for redemption of the 2020B Bonds are described in the forepart of this Official Statement under "DESCRIPTION OF THE 2020B BONDS -- Redemption of 2020B Bonds."

NOTICE OF REDEMPTION

The provisions for notice of redemption for the 2020B Bonds are further described in the forepart of this Official Statement under "DESCRIPTION OF THE 2020B BONDS -- Redemption of 2020B Bonds."

On or before the date fixed for redemption, subject to the provisions described above, moneys shall be deposited with the Trustee to pay the principal of, redemption premium, if any, and interest accrued to the redemption date on the Bonds called for redemption. Upon the deposit of such moneys, unless the Commission has given notice of has given notice of rescission as described herein, the Bonds shall cease to bear interest on the redemption date and shall no longer be entitled to the benefits of the Senior Indenture (other than for payment and transfer and exchange) and shall no longer be considered Outstanding.

CONSTRUCTION FUND

The Senior Indenture creates a special fund known as the "Construction Fund," which shall be held in trust by the Trustee. Money shall be deposited to the Construction Fund pursuant to the provisions of the Senior Indenture and from any other sources identified by the

Commission, Payment of the costs of the construction portion of any Project shall be made from the Construction Fund. A special account shall be created and identified for each such construction project, although funds, at the written direction of the Commission, may be transferred from one such account in the Construction Fund to another account in such Fund, Moneys in the Construction Fund may be disbursed by the Trustee to the Commission upon the filing by the Commission of a requisition, signed by the Chief Engineer (or his designee) and a Commission Official meeting the requirements of the Senior Indenture.

If at any time a Commission Official shall file with the Trustee a certificate stating that the cost of a Project has been finally determined and that the funds remaining in the account established for such Project exceed the remaining costs of the Project, then an amount equal to such excess shall be transferred to such fund or account as directed in the certificate, provided the same is accompanied by an opinion of Bond Counsel to the effect that such transfer and/or application will not adversely affect the tax-exempt status of the interest of the applicable Bonds.

Supplemental Indenture No. 57 creates a separate Series B of 2020 Account of the Construction Fund for deposit and disbursement of a portion of the proceeds of the 2020B Bonds. All funds on deposit in the Series B of 2020 Account of the Construction Fund and interest earnings thereon shall be applied to payment of the Costs of the capital projects authorized to be financed by the 2020B Bonds ("Capital Project") pursuant to requisitions in accordance with the Restated Indenture.

2020B ALTERNATE CONSTRUCTION FUND

Pursuant to the provisions of the Restated Indenture, Supplemental Indenture No. 57 creates a separate fund to be called the 2020B Alternate Construction Fund for deposit and disbursement of certain funds to be applied to costs of the Capital Project which shall not include proceeds of the 2020B Bonds or other Bonds issued or outstanding under the Restated Indenture. Monies to be deposited in the 2020B Alternate Construction Fund shall consist of certain reimbursements received by the Commission from the federal government relating to costs associated with the Capital Project and identified by the Commission for deposit into the 2020B Alternate Construction Fund. Monies in the 2020B Alternate Construction Fund may only be requisitioned to be applied to costs of the Capital Project after all proceeds of the 2020B Bonds have been requisitioned from the 2020B Account of the Construction Fund.

Before any payment shall be made from the 2020B Alternate Construction Fund, the Commission shall file with the Trustee a requisition, signed by the Chief Engineer (or his designee) and a Commission Official certifying certain matters specified by Supplemental Indenture No. 57.

If at any time a Commission official shall file with the Trustee a certificate stating that the cost of the Capital Project has been finally determined and that the funds remaining in the 2020B Alternate Construction Fund exceed the remaining costs of the Capital Project, then an amount equal to such excess shall be transferred to a fund described in such certificate, provided the same is accompanied by an opinion of Bond Counsel to the effect that such transfer and/or application will not adversely affect the tax-exempt status of the interest on the 2020B Bonds.

RATE COVENANT

The Senior Indenture contains the Rate Covenant which is described in the section in the forepart of this Official Statement captioned "SECURITY FOR THE 2020B BONDS - Rate Covenant."

COVENANTS AS TO TOLLS

The Commission covenants with respect to Tolls as described in the section in the forepart of this Official Statement captioned "SECURITY FOR THE 2020B BONDS - Rate Covenant."

COVENANTS OF THE COMMISSION

In addition to the Rate Covenant and covenants as to Tolls described above, in the Senior Indenture the Commission also makes various other covenants, including the following covenants:

Payment of Principal, Interest and Premium. The Commission covenants in the Senior Indenture that it will promptly pay the principal of, premium, if any, and the interest on every Bond issued under the provisions of the Senior Indenture at the places, on the dates and in the manner provided in the Senior Indenture and in said Bonds. Except as otherwise provided in the Senior Indenture, the principal, interest and premium are payable solely from Revenues, which Revenues are pledged pursuant to the Senior Indenture to the payment thereof in the manner and to the extent provided in the Senior Indenture. Neither the general credit of the Commission nor the general credit nor the taxing power of the Commonwealth or any political subdivision, agency or instrumentality thereof is pledged for the payment of the Bonds.

Annual Operating Budget; Capital Budget. The Commission covenants in the Senior Indenture that on or before the 31st day of May (or such other date as is consistent with the Commission's policies then in effect) in each Fiscal Year it will adopt a budget for the ensuing Fiscal Year (the "Annual Operating Budget"). Copies of each Annual Operating Budget shall be provided to the Trustee. Prior to adopting the Operating Budget, the Commission shall provide a draft of such budget to the Consulting Engineer sufficiently in advance of the adoption of such Annual Operating Budget in order for the Consulting Engineer to provide comments before such adoption, The Commission further covenants in the Senior Indenture that it will prepare each such Annual Operating Budget on the basis of monthly requirements, so that it will be possible to determine the Current Expenses for each month during the Fiscal Year.

If for any reason the Commission shall not have adopted the Annual Operating Budget before the first day of any Fiscal Year, the budget for the preceding Fiscal Year, shall, until the adoption of the Annual Operating Budget, be deemed to be in force and shall be treated as the Annual Operating Budget.

The Commission may adopt an amended or supplemental Annual Operating Budget at any time for the remainder of the then current Fiscal Year. Copies of any such amended or supplemental Annual Operating Budget shall be provided to the Trustee.

The Commission further covenants in the Senior Indenture that it will adopt a capital budget (the "Annual Capital Budget") on or before May 31st of each Fiscal Year. The Annual Capital Budget will detail the Commission's planned capital expenditures over a period of up to 10 years and the portion of capital expenditures expected to be funded from the Reserve Maintenance Fund. The Annual Capital Budget shall include the expected beginning balance in the Reserve Maintenance Fund, the amounts to be transferred by the Trustee to the Reserve Maintenance Fund from the General Reserve Fund, the amount of bond proceeds expected to become available during the Fiscal Year, the amounts expected to be transferred monthly by the Trustee from the Revenue Fund, and the desired year-end balance in the Reserve Maintenance Fund. Prior to adopting the Annual Capital Budget, the Commission shall provide a draft of the capital budget to the Consulting Engineer a sufficient time in advance of the Commission's adoption of the Annual Capital Budget in order for the Consulting Engineer to provide comments before the date of such adoption. The Commission may adopt amendments or supplements to the Annual Capital Budget at any time. Copies of the Annual Capital Budget shall be provided to the Trustee.

Limitations on Issuance of Additional Bonds and Execution of Approved Swaps. The Commission has covenanted in the Senior Indenture with respect to issuance of Additional Bonds, the incurrence of certain other Indebtedness, and execution of Approved Swap Agreements as described in the section in the forepart of this Official Statement captioned "SECURITY FOR THE 2020B BONDS -- Additional Bonds Test."

Use and Operation of System. The Commission covenants in the Senior Indenture that (a) it will maintain and operate the System in an efficient and economical manner, (b) it will maintain the System in good repair and will make all necessary repairs, renewals and replacements, to the extent funds are available therefor under the Senior Indenture, and (c) it will comply with laws and all rules, regulations, orders and directions of any legislative, executive, administrative or judicial body applicable to such System, subject to the right of the Commission to contest the same in good faith and by appropriate legal proceedings.

Inspection of the System. The Commission shall make arrangements for the System to be inspected at least once every three years by engaging one or more Consultants to conduct the actual inspections and to prepare a report. Such report shall state (a) whether the System has been maintained in good repair, working order and condition since the last inspection report pursuant to this Section and (b) any recommendations which such Consultants may have as to revisions or additions to the Commission's Annual Capital Budget. Copies of such reports shall be filed with the Trustee.

Construction of Projects. The Commission covenants in the Senior Indenture that it will proceed with diligence to construct any Projects in conformity with law and all requirements of all governmental authorities having jurisdiction thereover. Before entering into any construction contract it will secure the approval of the plans and specifications for such contract by a certified engineer or architect, who may be an employee of the Commission, and that it will require each Person, firm or corporation with whom it may contract in connection with the construction of any Project to furnish (1) a performance bond for 100% of the contract amount, and (2) a payment bond for 100% of the contract amount. Each of such bonds shall be executed by one or more responsible surety companies authorized to do business in the Commonwealth. Any proceeds received from such bonds first shall be applied toward the completion of the applicable Project and second shall be deposited in the General Reserve Fund. Construction contracts for labor and/or materials also shall provide that payments thereunder shall not be made by the Commission in excess of 95% of current estimates except that (i) once the work is at least 50% complete, (ii) where waiver of retainage is necessary in the opinion of the Chief Engineer, based on the advice of the Chief Counsel, to comply with or facilitate compliance with state or federal law in order to receive state or federal funds, such retainage may be reduced by the Chief Engineer or another Commission Official to the extent such officer deems such reduction to be necessary or appropriate.

The Commission shall involve the Consulting Engineer or another Consultant to assist in quality assurance matters in connection with design and/or construction of any Project or portion thereof to the extent the Commission determines necessary or appropriate. For purposes of this subsection, “quality assurance” shall be defined to mean those activities, from inception to completion of a Project, which are necessary to ensure that the processes are in place to produce a quality product.

Employment of Consulting Engineers. The Commission covenants in the Senior Indenture to employ an independent engineer or engineering firm or corporation having a national reputation for skill and experience in such work to perform any functions of the Consulting Engineer under the Senior Indenture.

Insurance. The Commission covenants in the Senior Indenture that it will keep the System and its use and operation thereof insured (including through self-insurance) at all times in such amounts, subject to such exceptions and deductibles and against such risks, as are customary for similar organizations. All insurance policies shall be carried with a responsible insurance company or companies authorized to do business in the Commonwealth or shall be provided under a self-insurance program; any self-insurance program shall be actuarially sound in the written opinion of an accredited actuary, which opinion shall be filed with the Trustee at least annually. At any time and from time to time, the Commission may elect to terminate self-insurance of a given type. Upon making such election, the Commission shall, to the extent then deemed necessary by a Consultant, obtain and maintain comparable commercial insurance.

On July 1, 2003 and every three years thereafter (except with respect to self-insurance, which shall be annually), the Commission shall cause a Consultant to certify to the Trustee that (a) it has reviewed the adequacy of the Commission's insurance, listing the types and amounts of insurance, and (b) it finds such coverage to be reasonable and customary for similar organizations. If the Consultant concludes that coverage other than that which is currently carried by the Commission should be carried, the Commission shall obtain such insurance coverage unless it determines in good faith that it is unreasonable or uneconomical to obtain such coverage and certifies the same in writing to the Trustee.

All insurance policies maintained by the Commission shall be available at reasonable times for inspection by the Trustee, its agents and representatives.

The Commission covenants that it will take such actions as it deems necessary to demand, collect and sue for any proceeds that may become due and payable to it under any policy.

Damage or Destruction. Immediately after any damage to or destruction of any part of the System which materially adversely affects the Revenues of the Commission, the Commission will promptly take action to repair, reconstruct or replace the damaged or destroyed property or to otherwise ameliorate the adverse impact on Revenues.

Annual Audit. The Commission covenants in the Senior Indenture that it will cause an annual audit to be made of its books and accounts of each Fiscal Year by an independent certified public accountant. A copy of such audit shall be filed with the Trustee promptly after the receipt by the Commission for such purpose.

Encumbrance of Revenues; Sale, Lease or Other Disposition of Property. The Commission covenants in the Senior Indenture that so long as any Bonds are Outstanding under the Senior Indenture:

(a) (1) It will not create or suffer to be created any lien or charge upon any Revenues, except the lien and charge of the Bonds secured by the Senior Indenture and any Subordinated Indebtedness permitted pursuant to the provisions of the Senior Indenture; and (2) from such Revenues or other funds available under the Senior Indenture, it will pay or cause to be discharged, or will make adequate provision to pay or discharge, within ninety (90) days after the same shall accrue, all lawful claims and demands for labor, materials or supplies which, if unpaid, might by law become a lien upon any Revenues; provided, however, that the Commission shall not be required to pay or discharge, or make provision for such payment or discharge of, any such lien or charge so long as the validity thereof shall be contested in good faith and by appropriate legal proceedings.

(b) The Commission will not sell or otherwise dispose of any real estate or personal property comprising a portion of the System unless the Commission determines (1) such property (i) has become obsolete or worn out or is reasonably expected to become so within one year after the date of such disposition, (ii) is no longer used or useful in the operation of the System or in the generation of Revenues or (iii) is to be or has been replaced by other property or (2) by resolution that such action will not materially adversely affect the Net Revenues of the Commission. The Commission shall have the discretion to deposit the proceeds of such sale or disposition in a fund or account held under the Senior Indenture or a Commission account held outside the Senior Indenture, as it deems appropriate. In the event the Commission did not meet the Rate Covenant during the preceding Fiscal Year, however, the Commission shall notify the Trustee of the sale or disposition of any property which generated Net Revenues in excess of one percent of the Commission's Net Revenues during the prior Fiscal Year and all proceeds from such sale or disposition shall be deposited in the Revenue Fund.

(c) The Commission will not lease any real estate or personal property comprising a portion of the System unless the Commission determines by resolution that such action will not materially adversely affect the Net Revenues of the Commission. The rental and other proceeds from any lease shall not be required to be deposited in the Revenue Fund unless the effect of such lease is to reduce Tolls.

Without intending to limit the foregoing, the Commission also may enter into contracts or other forms of agreement for the use of any real estate comprising a portion of the System including, but not limited to, rights of way for telephone, telegraph, optic fiber and other forms of communication, electric, gas transmission and other lines or facilities for utilities, and other uses which do not materially adversely affect the operation of the System and the payments received in connection with the same shall be deposited in such accounts (which may be outside the Senior Indenture) as the Commission shall determine.

CREATION OF FUNDS

In addition to the Construction Fund and any other funds created by Supplemental Indentures, the Senior Indenture creates an Operating Account and the following funds: Revenue Fund; Debt Service Fund; Debt Service Reserve Fund; Reserve Maintenance Fund; General Reserve Fund; and Rebate Fund. Amounts deposited in such funds therein shall be held in trust by the Trustee until applied as directed in the Senior Indenture.

REVENUE FUND; AGREEMENTS WITH OTHER TURNPIKES

The Commission covenants in the Senior Indenture that all Revenues will be deposited daily, as far as practicable, with the Trustee or in the name of the Trustee with a Depositary or Depositaries, to the credit of the Revenue Fund.

The Senior Indenture provides that, to the extent authorized by law, the Commission may enter into agreements with any commission, authority or other similar legal body operating a turnpike, whether or not connected to the System, (1) with respect to the establishment of combined schedules of Tolls and/or (2) for the collection and application of Tolls charged for trips over all or a portion of both turnpikes combined, which on the basis of the Revenues to be received by any such agreement will result in the receipt by the Commission of its allocable portion of such Tolls (less fees and expenses associated with such arrangement). To the extent now or hereafter authorized by law, the Commission also may enter into agreements with other Persons with respect to the collection of Tolls or advances or prepayment of Tolls charged for trips over all or a portion of the System, which on the basis of the Revenues to be received by any such agreement will result in the receipt by the Commission of the appropriate Tolls for such trips. Unless approved by a Consultant, no agreement establishing a combined schedule of

Tolls shall restrict the ability of the Commission to implement an increase in its Tolls at least annually.

Amounts received by the Commission from such other commission, authority or other similar legal body or Person, in accordance with such agreements, shall be deposited in the Revenue Fund when they constitute Revenues. Such amounts may be held with a Depositary or Depositaries until they constitute Revenues. Amounts received by the Commission and deposited in the Revenue Fund which are payable by the Commission to such other commission, authority or other similar legal body or Person, in accordance with any such agreements, shall be withdrawn by the Trustee from the Revenue Fund upon delivery to the Trustee of a certificate of a Commission Official that such withdrawal is required pursuant to the terms of an agreement entered into pursuant to the provisions described herein and shall be paid by the Trustee in accordance with directions contained in such certificate.

Except as otherwise provided in the provisions described above, transfers from the Revenue Fund shall be made to the following funds and in the following order of priority: (1) Rebate Fund; (2) Operating Account; (3) Debt Service Fund; (4) Reserve Maintenance Fund; (5) Debt Service Reserve Fund; and (6) General Reserve Fund (after retaining such funds in the Revenue Fund as are identified in the certificate described below under "General Reserve Fund").

OPERATING ACCOUNT

The Senior Indenture provides that the Commission shall establish an account known as the "Operating Account" which is described in the section in the forepart of this Official Statement captioned "SECURITY FOR THE 2020B BONDS--Operating Account."

DEBT SERVICE FUND

The Senior Indenture creates two separate accounts in the Debt Service Fund to be known as the "Interest Account" and the "Principal Account."

The Trustee and the Commission may create such additional accounts in the Debt Service Fund pursuant to a Supplemental Indenture as they deem necessary or appropriate, including, but not limited to, (a) an account into which drawings on a Credit Facility are to be deposited and from which principal (including redemption price) and Purchase Price of and interest on the Series of Bonds secured by such Credit Facility are to be paid (and upon such payment, amounts on deposit in the Principal and Interest Accounts for such Bonds shall be used to repay the provider of the Credit Facility for such payments), and (b) an account into which payments to the Commission to any Parity Swap Counterparty are to be deposited and from which payments to such Parity Swap Counterparty are to be paid.

There is created pursuant to Supplemental Indenture No. 57 a separate account of the Debt Service Fund designated "Series B of 2020 Account of the Debt Service Fund" and a separate sub-account therein to be designated the "Series B of 2020 Capitalized Interest Sub-account" each for deposit and disbursement of funds for debt service on the 2020B Bonds. The

2020B Bonds shall be "Fixed Rate Bonds" (i.e., any fixed rate bonds, term mode bonds and multi-modal fixed rate bonds) within the meaning of Section 715 of the Restated Indenture (*i.e.*, related to the covenant to make certain monthly deposits to the Debt Service Fund). Amounts in the Series B of 2020 Capitalized Interest Sub-account shall be applied to pay a portion of interest on the 2020B Bonds as further described under "ESTIMATED SOURCES AND USES OF FUNDS" in the forepart of this Official Statement, as directed in writing by the Commission.

Pursuant to Section 506 of the Restated Indenture, there is established pursuant to Supplemental Indenture No. 57 a separate sub-account in the 2019 Series A Account of the Debt Service Fund established under Supplemental Trust Indenture No. 51, dated as of August 1, 2019, between the Commission and the Trustee (pursuant to which the Commission issued the Pennsylvania Turnpike Commission Turnpike Revenue Bonds, Series A of 2019 issued in the original principal amount of $341,325,000 (the "Series A of 2019 Bonds")) to be designated the "2019 Series A Capitalized Interest Sub-account" for deposit and disbursement of funds for interest on the Series A of 2019 Bonds. Amounts in the 2019 Series A Capitalized Interest Sub-account shall be applied to pay a portion of the interest on the Series A of 2019 Bonds, as further described under "ESTIMATED SOURCES AND USES OF FUNDS" in the forepart of this Official Statement, as directed in writing by the Commission.

The Trustee shall make deposits into the Debt Service Fund as described in the section in the forepart of this Official Statement captioned "SECURITY FOR THE 2020B BONDS--Debt Service Fund."

The moneys in the Interest and Principal Accounts shall be held by the Trustee in trust for the benefit of the Bonds, to the extent the foregoing are payable from such accounts, and, to said extent and pending application, shall be subject to a lien and charge in favor of the Owners of the Bonds until paid out or transferred as provided in the Senior Indenture. There shall be withdrawn from the Interest Account (and any available capitalized interest) and the Principal Account from time to time and set aside or deposited with the Trustee sufficient money for paying the interest on and the principal of and premium on the Bonds as the same shall become due, except to the extent such interest, principal or other amounts are payable from a fund or account other than the Debt Service Fund as provided in any Supplemental Indenture.

If at the time the Trustee is required to make a withdrawal from the Debt Service Fund the moneys therein shall not be sufficient for such purpose, the Trustee shall withdraw the amount of such deficiency from the moneys on deposit in the following funds or accounts and transfer the same to the Debt Service Fund in the following order: the Debt Service Reserve Fund, the General Reserve Fund, and the Reserve Maintenance Fund.

With respect to any Bonds for which Subsidy Payments are scheduled to be received by the Commission, the Commission shall deposit or cause to be deposited all such Subsidy Payments, as and when received, into a separate account of the Debt Service Fund held for each such Series of Bonds, and such Subsidy Payments shall be applied to pay debt service on the corresponding Series of Bonds with respect to which such Subsidy Payments are received.

RESERVE MAINTENANCE FUND

In each Fiscal Year, after first having made the deposits to the Revenue Fund, Operating Account and Debt Service Fund provided by the provisions described above, the Trustee shall transfer from the Revenue Fund on or before the last Business Day of each month to the credit of the Reserve Maintenance Fund the amount shown in the Annual Capital Budget for the ensuing month. The provisions regarding the Reserve Maintenance Fund are further described in the section in the forepart of this Official Statement captioned "SECURITY FOR THE 2020B BONDS—Reserve Maintenance Fund."

DEBT SERVICE RESERVE FUND

The Senior Indenture establishes a Debt Service Reserve Fund and provides that a special account within the Debt Service Reserve Fund may be created with respect to each series of Debt Service Reserve Fund Bonds issued under the Senior Indenture and any Supplemental Indenture. (*The 2020B Bonds are "Debt Service Reserve Fund Bonds."*)

In each Fiscal Year, after first having made the deposits to the Operating Account, Debt Service Fund and Reserve Maintenance Fund described above, the Trustee shall transfer from the Revenue Fund on or before the last day of each month to the credit of the Debt Service Reserve Fund (a) the amount, if any, required to make the amount on deposit in the Debt Service Reserve Fund equal to the Debt Service Reserve Requirement which restoration, as implied by the Rate Covenant, is intended to occur within eighteen (18) months; and (b) the amount set forth in a Supplemental Indenture if an amount different from the Debt Service Reserve Requirement is required.

To the extent accounts are created in the Debt Service Reserve Fund for Debt Service Reserve Fund Bonds, the funds and DSRF Security, as hereinafter defined, held therein shall be available to make payments required under the Senior Indenture for the benefit of all Debt Service Reserve Fund Bonds.

Moneys held in the Debt Service Reserve Fund shall be used for the purpose of paying interest on, maturing principal and mandatory sinking fund redemption price of Debt Service Reserve Fund Bonds whenever and to the extent that the moneys held for the credit of the Debt Service Fund shall be insufficient for such purpose. If at any time the moneys and the principal amount of any DSRF Security held in the Debt Service Reserve Fund shall exceed the Debt Service Reserve Requirement, the Commission shall direct whether such excess moneys shall be transferred by the Trustee to the credit of the General Reserve Fund or used to reduce the principal amount of any DSRF Security, as hereinafter defined.

In the event the Trustee shall be required to withdraw funds from the Debt Service Reserve Fund to restore a deficiency in the Debt Service Fund arising with respect to Debt Service Reserve Fund Bonds, the amount of such deficiency shall be allocated pro rata among such Bonds except to the extent provided in the last sentence of the next paragraph.

In lieu of the deposit of moneys into the Debt Service Reserve Fund, the Commission may cause to be provided a surety bond, an insurance policy, a letter of credit or similar financial instrument satisfactory to the Rating Agency (as evidenced by a letter from the Rating Agency confirming that the DSRF Security will not result in the rating on any outstanding Bonds being downgraded) (each, a "DSRF Security") payable to the Trustee for the benefit of the Bondholders in an amount equal to the difference between the Debt Service Reserve Requirement and the amounts then on deposit in the Debt Service Reserve Fund. The DSRF Security shall be payable (upon the giving of notice as required thereunder) on any Interest Payment Date on which moneys will be required to be withdrawn from the Debt Service Reserve Fund and applied to the payment of the principal of or interest on any Bonds to the extent that such withdrawals cannot be made by amounts on deposit in the Debt Service Reserve Fund.

If a disbursement is made pursuant to a DSRF Security, the Commission shall be obligated either (a) to reinstate the maximum limits of such DSRF Security or (b) to deposit into the Debt Service Reserve Fund, funds in the amount of the disbursement made under such DSRF Security, or a combination of such alternatives, as shall provide that the amount credited to the Debt Service Reserve Fund equals the Debt Service Reserve Requirement within a time period of eighteen (18) months.

If the DSRF Security shall cease to have a rating described in the second preceding paragraph, the Commission shall use reasonable efforts to replace such DSRF Security with one having the required rating, but shall not be obligated to pay, or commit to pay, increased fees, expenses or interest in connection with such replacement or to deposit Revenues in the Debt Service Reserve Fund in lieu of replacing such DSRF Security with another.

Supplemental Indenture No. 57 provides that the 2020B Bonds shall be Debt Service Reserve Fund Bonds for purposes of the Indenture and creates a separate account of the Debt Service Reserve Fund to be designated "Series B of 2020 Account of the Debt Service Reserve Fund." All earnings on investments held in the Series B of 2020 Account of the Debt Service Reserve Fund not needed to maintain the Debt Service Reserve Fund Requirement shall be transferred to the Series B of 2020 Account of the Debt Service Fund, such transfers to be made no less frequently than semi-annually, on the second Business Day preceding each Interest Payment Date for the 2020B Bonds.

GENERAL RESERVE FUND

After first having made the deposits to the Operating Account, Debt Service Fund, Reserve Maintenance Fund and Debt Service Reserve Fund described above, the Trustee shall transfer from the Revenue Fund on or before the last Business Day of each year (or more frequently if the Commission determines that excess funds are on deposit in the Revenue Fund) to the credit of the General Reserve Fund any funds which a Commission Official determines to be in excess of the amount required to be reserved therein for future transfers to the Debt Service Fund. The provisions regarding the General Reserve Fund are further described in the section in the forepart of this Official Statement captioned "SECURITY FOR THE 2020B BONDS—General Reserve Fund."

REBATE FUND

The Senior Indenture authorizes the creation of a Rebate Fund. The Commission covenants in the Senior Indenture to calculate and to pay directly to the government of the United States of America all amounts due for payment of “arbitrage rebate” under Section 148(f) of the Code with respect to any Bonds. Nevertheless, the Commission in the future may deposit with the Trustee or direct the Trustee to deposit in the Rebate Fund amounts held in any Fund under the Senior Indenture for any or all Series of Bonds (which direction shall specify the procedures for collection and payment of amounts due in respect of arbitrage rebate) if (a) required under any amendments to Section 148(f) of the Code or (b) the Commission otherwise determines that the funding of the Rebate Fund is necessary or appropriate. The Rebate Fund is a trust fund but the amounts therein do not constitute part of the Trust Estate. Amounts on deposit in the Rebate Fund may be used solely to make payments to the United States of America under Section 148 of the Code and to pay costs related to the calculation of the amounts due. Upon satisfaction of the Commission's covenants described above, any amounts remaining in the Rebate Fund shall be deposited in the General Reserve Fund.

ADDITIONAL SECURITY; PARITY WITH OTHER PARITY OBLIGATIONS

Except as otherwise provided or permitted in the Senior Indenture, the Trust Estate securing all Bonds issued under the terms of the Senior Indenture shall be shared on a parity with other Parity Obligations on an equal and ratable basis. The Commission may, however, in its discretion, provide additional security or credit enhancement for specified Parity Obligations with no obligation to provide such additional security or credit enhancement to other Parity Obligations, except that no additional security or credit enhancement shall be provided unless there shall have been first delivered to the Trustee an opinion of Bond Counsel that the exclusion from gross income of interest on any Bonds for federal income tax purposes will not be adversely affected thereby. Moreover, the Commission may provide in a Supplemental Indenture that Bonds issued thereunder are not secured, or are secured only in part or only under certain circumstances, by the Trust Estate.

DEPOSITARIES; INVESTMENT OF MONEYS

Except as otherwise provided in the Senior Indenture, all moneys received by the Commission under the provisions of the Senior Indenture shall be deposited with the Trustee or with one or more Depositaries. All moneys deposited under the provisions of the Senior Indenture with the Trustee or any other Depositary shall be held in trust, credited to the particular fund or account to which such moneys belong and applied only in accordance with the provisions of the Senior Indenture. No moneys shall be deposited with any Depositary, other than the Trustee, in an amount exceeding fifty per centum (50%) of the amount which an officer of such Depositary shall certify to the Commission as the combined capital and surplus of such Depositary. All moneys deposited with the Trustee or any other Depositary under the Senior Indenture shall, to the extent not insured, be secured in the manner required or permitted by applicable law.

Moneys held in any of the funds or accounts under the Senior Indenture may be retained uninvested, if deemed necessary by the Commission, as trust funds and secured as provided above or may be invested in Permitted Investments. All investments made pursuant to the Senior Indenture shall be subject to withdrawal or shall mature or be subject to repurchase or redemption by the holder, not later than the earlier of (a) the date or dates set forth for similar investments in the applicable Supplemental Indenture or (b) the date on which the moneys may reasonably be expected to be needed for the purpose of the Senior Indenture.

Investments acquired with the moneys in any fund or account shall be a part of such fund or account and, for the purposes of determining the amount in such fund or account, shall be valued at their then fair market value. The interest or income received on an investment shall remain in the fund or account to which the investment is credited except to the extent otherwise provided in the applicable Supplemental Indenture.

The Trustee shall withdraw, redeem or sell all or a portion of any investment upon receipt of the written direction from the Commission or upon a determination by the Trustee that moneys in such fund or account are to be applied or paid by the Trustee pursuant to the provisions of the Senior Indenture, and the proceeds thereof shall be deposited by the Trustee in the appropriate fund or account. Neither the Trustee nor the Commission shall be liable or responsible for any depreciation in the value of the Permitted Investments or for any losses incurred upon any unauthorized disposition thereof.

Each fund held under the Senior Indenture shall be valued by the Trustee at least once annually within thirty days after the end of each Fiscal Year.

EVENTS OF DEFAULT

Each of the following is an "Event of Default" under the Senior Indenture:

(a) Default in the payment of any installment of principal, redemption premium, if any, interest or other amount due on any Bond when the same becomes due and payable;

(b) Default in the payment by the Commission of any other Parity Obligation;

(c) Subject to the provisions relating to notice and opportunity to cure certain defaults, default in the performance or breach of any covenant, warranty or representation of the Commission contained in the Senior Indenture (other than a default under (a) and (b) above);

(d) The occurrence of any Event of Default under any Supplemental Indenture; or

(e) (1) The occurrence of an Event of Bankruptcy of the Commission; (2) the appointment of a receiver, liquidator, assignee, custodian, trustee, sequestrator or other similar official of the Commission or of any substantial portion of its property, which appointment shall not have been rescinded or stayed within ninety (90) days after taking effect; or (3) the ordering of the winding up or liquidation of the affairs of the Commission.

No default under paragraph (c) above under "Events of Default" shall constitute an Event of Default until written notice of such default shall have been given to the Commission by the Trustee or by the holders of at least 25% in aggregate principal amount of the Bonds Outstanding, and the Commission shall have had thirty (30) days after receipt of such notice to correct such default or cause such default to be corrected, and shall have failed to do so. In the event, however, that the default is such that it cannot be corrected within such thirty (30) day period, it shall not constitute an Event of Default if corrective action is instituted by the Commission within such period and diligently pursued (as determined by the Trustee) until the default is corrected.

REMEDIES UPON DEFAULT

If an Event of Default occurs and is continuing, the Trustee may, and upon the written request to the Trustee by the holder or holders of not less than a majority in aggregate principal amount of the Bonds then Outstanding shall, subject to the requirement that the Trustee be provided with indemnity satisfactory to it, by written notice to the Commission, declare the principal and interest on of the Bonds to the date of acceleration to be immediately due and payable.

At any time after such a declaration of acceleration has been made and before the entry of a judgment or decree for payment of the money due, the Trustee may, or the holders of not less than a majority in aggregate principal amount of the Bonds then Outstanding, may by written notice to the Commission and the Trustee, and subject to the provision to the Trustee of satisfactory indemnity, direct the Trustee to rescind and annul such declaration and its consequences if: (1) there has been paid to or deposited with the Trustee by or for the account of the Commission, or provision satisfactory to the Trustee has been made for the payment of a sum sufficient to pay: (i) all overdue installments of interest on the Bonds; (ii) the principal of and redemption premium, if any, on any Bonds which have become due other than by such declaration of acceleration and interest thereon; (iii) all amounts due on other Parity Obligations; (iv) to the extent lawful, interest upon overdue installments of interest and redemption premium, if any; and (v) all sums paid or advanced by the Trustee under the Senior Indenture, together with the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel prior to the date of notice of rescission; and (2) all Events of Default, other than those described in paragraphs (a) and (b) above under "Events of Default", if any, which have occasioned such acceleration, have been cured or waived.

No such rescission and annulment shall affect any subsequent default or impair any consequent right.

ADDITIONAL REMEDIES

The Trustee, upon the occurrence of an Event of Default may, and upon the written request of the holders of not less than a majority in aggregate principal amount of the Bonds Outstanding and subject to the requirement that the Trustee be provided with satisfactory indemnity, shall proceed to protect and enforce its rights and the rights of the holders of the

Bonds under the Senior Indenture by a suit or suits in equity or at law, either for the specific performance of any covenant or agreement contained in the Senior Indenture or in aid of the execution of any power in the Senior Indenture granted, or for the enforcement of any other appropriate legal or equitable remedy, and the Trustee in reliance upon the advice of counsel may deem most effective to protect and enforce any of the rights or interests of the Bondholders under the Bonds or the Senior Indenture.

Without limiting the generality of the foregoing, the Trustee shall at all times have the power to institute and maintain such proceedings as it may deem expedient: (1) to prevent any impairment of the Trust Estate by any acts which may be unlawful or in violation of the Senior Indenture, and (2) to protect its interests and the interests of the Bondholders in the Trust Estate and in the issues, profits, revenues and other income arising therefrom, including the power to maintain proceedings to restrain the enforcement of or compliance with any governmental enactment, rule or order which may be unconstitutional or otherwise invalid, if the enforcement of, or compliance with, such enactment, rule or order would impair the Trust Estate or be prejudicial to the interests of the Bondholders or the Trustee.

TRUSTEE MAY FILE PROOFS OF CLAIM

In case of the pendency of any receivership, insolvency, liquidation, bankruptcy, reorganization, arrangement, adjustment, composition or other judicial proceeding under the Bankruptcy Law relating to the Commission, any other obligor upon the Bonds or any property of the Commission, the Trustee (whether or not the principal of the Bonds shall then be due and payable by acceleration or otherwise, and whether or not the Trustee shall have made any demand upon the Commission for the payment of overdue principal, redemption premium, if any, and interest) shall be entitled and empowered, by intervention in such proceeding or other means: (1) to file and prove a claim for the whole amount of the principal, redemption premium, if any, and interest owing and unpaid in respect of the Bonds then Outstanding or for breach of the Senior Indenture and to file such other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel) and of the holders allowed in such proceeding; and (2) to collect and receive any moneys or other property payable or deliverable on any such claims and to distribute the same; and any receiver, assignee, trustee, liquidator, sequestrator or similar official in any such judicial proceeding is authorized pursuant to the Senior Indenture by each holder to make such payments to the Trustee and, in the event that the Trustee shall consent to the making of such payments directly to the holders, to pay to the Trustee any amount due it for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, and any other amounts due the Trustee under the Senior Indenture.

No provision of the Senior Indenture empowers the Trustee to authorize or consent to or accept or adopt on behalf of any Bondholders any plan of reorganization, arrangement, adjustment or composition affecting any of the Bonds or the rights of any holder thereof, or to authorize the Trustee to vote in respect of the claim of any holder in any proceeding described in the preceding paragraph.

PRIORITY OF PAYMENT FOLLOWING EVENT OF DEFAULT

Any portion of the Trust Estate held or received by the Trustee, by any receiver or by any Bond Owner pursuant to any right given or action taken under the provisions of the Senior Indenture, after payment of the costs and expenses of the proceedings resulting in the collection of such moneys and of the fees, expenses and liabilities incurred by the Trustee and the transfer to Secured Owners (other than Owners of the Bonds) of amounts to which they are entitled by virtue of their parity position, shall be deposited and applied as follows:

(a) If the principal of all the Bonds then Outstanding and the interest accrued thereon has been declared to be due and payable immediately pursuant to the acceleration provisions described above (or, but for any legal prohibition on such declaration of acceleration, such principal and interest would have been declared to be due and payable immediately pursuant to such Section or the provisions of any applicable Reimbursement Agreement) and such declaration has not been rescinded and annulled, there shall be deposited into the Debt Service Fund moneys sufficient to pay the amounts described in clauses (i), (ii) and (iii) below, and all such moneys shall be applied, as promptly as practicable (but subject to the provisions of the last paragraph of this Section), proportionately to: (i) the payment to the persons entitled thereto of all payments of interest then due on the Bonds with interest on overdue installments, if lawful, at their respective rates from the respective dates upon which they became due, in the order of maturity of the installments of such interest and, if the amount available shall not be sufficient to pay in full any particular installment of interest, then to the payment ratably, according to the amounts due on such installment; (ii) the payment to the persons entitled thereto of the unpaid principal of any of the Bonds which shall have become due (or which but for any legal prohibition on such declaration of acceleration would have become due) with interest on such Bonds at their respective rates from the respective dates upon which they became due and, if the amount available shall not be sufficient to pay in full the Bonds due on any particular date, together with such interest, then to the payment ratably, according to the amount of principal and interest due on such date, in each case to the persons entitled thereto, without any discrimination or privilege; and (iii) the payment of any other amounts then owing under the Senior Indenture; and, after said deposit into the Debt Service Fund, there shall be paid the Subordinated Indebtedness issued or incurred by the Commission pursuant to the Senior Indenture.

(b) If the principal of and interest on all Bonds then Outstanding has not been declared to be due and payable immediately pursuant to the acceleration provisions described above (or deemed to be due and payable as contemplated in paragraph (a) above) or if such a declaration has been rescinded and annulled, then there shall be deposited into the Debt Service Fund moneys sufficient to pay the amounts described in clauses (i), (ii) and (iii) below, and all such moneys shall be applied, as promptly as practicable (but subject to the provisions of the last paragraph of this Section), (i) first, to the payment to the persons entitled thereto of all installments of interest then due on the Bonds, with interest on overdue installments, if lawful, at their respective rates from the respective dates upon which they became due, in the order of maturity and, if the amount available shall not be sufficient to pay in full any particular installment of interest, then to the payment ratably, according to the amounts due on such installment; (ii) second, to the payment to the persons entitled thereto of the unpaid principal of any of the Bonds which shall have become due with interest on such Bonds at their respective rates from the respective dates upon which they became due and, if the amount available shall not be sufficient to pay in full the Bonds due on any particular date, together with such interest, then to the payment ratably, according to the amount of principal and interest due on such date, in each case to the persons entitled thereto, without any discrimination or privilege; and (iii) third, to the payment of any other amounts then owing under the Senior Indenture, and, after said deposit into the Debt Service Fund, there shall be paid the Subordinated Indebtedness issued or incurred by the Commission pursuant to the Senior Indenture.

Whenever moneys are to be applied pursuant to the above provisions, such moneys shall be applied at such times, and from time to time, as the Trustee shall determine, having due regard to the amount of such moneys available for application and the likelihood of additional moneys becoming available for such application in the future. Whenever the Trustee shall apply such funds, it shall fix the date (which shall be an Interest Payment Date unless it shall deem another date more suitable) upon which such application is to be made and upon such date interest on the amounts of principal and interest to be paid on such date shall cease to accrue. The Trustee shall give notice of the deposit with it of any such moneys and of the fixing of any such date by mail to all Owners of Bonds with respect to which the Event of Default occurred and shall not be required to make payment to any Bond Owner until such Bonds shall be presented to the Trustee for appropriate endorsement or for cancellation if fully paid.

BONDHOLDERS MAY DIRECT PROCEEDINGS

The owners of a majority in aggregate principal amount of the Bonds Outstanding shall, subject to the requirement that the Trustee be provided with satisfactory indemnity, have the right, by an instrument or instruments in writing executed and delivered to the Trustee, to direct the method and place of conducting all remedial proceedings by the Trustee under the Senior Indenture, provided that such direction shall not be in conflict with any rule of law or the Senior Indenture and that the Trustee shall have the right to decline to follow any such direction which in the opinion of the Trustee would be unduly prejudicial to the rights of Bondholders not parties to such direction or would subject the Trustee to personal liability or expense. Notwithstanding the foregoing, the Trustee shall have the right to select and retain counsel of its choosing to represent it in any such proceedings. The Trustee may take any other action which is not inconsistent with any direction under this paragraph.

LIMITATIONS ON RIGHTS OF BONDHOLDERS

No Bondholder shall have any right to pursue any other remedy under the Senior Indenture or the Bonds unless: (1) an Event of Default shall have occurred and is continuing; (2) the owners of not less than a majority in aggregate principal amount of all Bonds then Outstanding have requested the Trustee, in writing, to exercise the powers hereinabove granted or to pursue such remedy in its or their name or names; (3) the Trustee has been offered indemnity satisfactory to it against costs, expenses and liabilities reasonably anticipated to be incurred; (4) the Trustee has declined to comply with such request, or has failed to do so, within sixty (60) days after its receipt of such written request and offer of indemnity; and (5) no direction inconsistent with such request has been given to the Trustee during such 60-day period by the holders of a majority in aggregate principal amount of the Bonds Outstanding.

The provisions of the preceding paragraph are conditions precedent to the exercise by any Bondholder of any remedy under the Senior Indenture. The exercise of such rights is further subject to the provisions described under “Bondholders May Direct Proceedings”, "Unconditional Right of Bondholder to Receive Payment" and “Delay or Omission Not Waiver” and certain other provisions of the Senior Indenture. No one or more Bondholders shall have any right in any manner whatever to enforce any right under the Senior Indenture, except in the manner provided in the Senior Indenture. All proceedings at law or in equity with respect to an Event of Default shall be instituted and maintained in the manner provided in the Senior Indenture for the equal and ratable benefit of the Bondholders of all Bonds Outstanding.

RIGHTS AND REMEDIES CUMULATIVE

No right or remedy in the Senior Indenture conferred upon or reserved to the Trustee is intended to be exclusive of any other right or remedy, but each such right or remedy shall, to the extent permitted by law, be cumulative of and in addition to every other right or remedy given under the Senior Indenture or now or hereafter existing at law, in equity or otherwise. The assertion or employment of any right or remedy under the Senior Indenture shall not prevent the concurrent assertion or employment of any other appropriate right or remedy.

DELAY OR OMISSION NOT WAIVER

No delay or omission by the Trustee or any Bondholder to exercise any right or remedy accruing upon any Event of Default shall impair any such right or remedy or constitute a waiver of such Event of Default. Every right and remedy given by the Senior Indenture or by law to the Trustee or the Bondholders may be exercised from time to time, and as often as may be deemed expedient, by the Trustee or the Bondholders, as the case may be.

WAIVER OF DEFAULTS

The holders of a majority in aggregate principal amount of the Outstanding Bonds may, by written notice to the Trustee and subject to the requirement that the Trustee be provided with satisfactory indemnity, waive any existing default or Event of Default and its consequences, except an Event of Default under paragraph (a) or (b) under “Events of Default.” Upon any such waiver, the default or Event of Default shall be deemed cured and shall cease to exist for all purposes. No waiver of any default or Event of Default shall extend to or effect any subsequent default or Event of Default or shall impair any right or remedy consequent thereto.

Notwithstanding any provision of the Senior Indenture, in no event shall any Person, other than all of the affected Bondholders, have the ability to waive any Event of Default under the Senior Indenture if such event results or may result, in the opinion of Bond Counsel, in interest on any of the Bonds becoming includable in gross income for federal income tax purposes if the interest on such Bonds was not includable in gross income for federal income tax purposes prior to such event.

NOTICE OF EVENTS OF DEFAULT

If an Event of Default occurs of which the Trustee has or is deemed to have notice under the Senior Indenture, the Trustee shall give Immediate Notice thereof to the Commission. Within 90 days thereafter (unless such Event of Default has been cured or waived), the Trustee shall give notice of such Event of Default to each Bondholder then Outstanding, provided, however, that except in the instance of an Event of Default described in paragraph (a) or (b) above under "Events of Default," the Trustee may withhold such notice if and so long as the Trustee in good faith determines that the withholding of such notice does not materially adversely affect the interests of Bondholders, and provided, further, that notice to Bondholders of any Event of Default under paragraph (c) under "Events of Default" shall be subject to the provisions described above relating to cure of such defaults and shall not be given until the grace period has expired.

THE TRUSTEE; QUALIFICATIONS OF TRUSTEE

The Senior Indenture contains provisions relating to the appointment and duties of the Trustee including that prior to the occurrence of an Event of Default of which the Trustee has or is deemed to have notice under the Senior Indenture, and after the curing of any Event of Default which may have occurred, the Trustee undertakes to perform such duties and only such duties as are specifically set forth in the Senior Indenture, and no implied covenants or obligations shall be read into the Senior Indenture against the Trustee. In case an Event of Default of which the Trustee has or is deemed to have notice under the Senior Indenture has occurred and is continuing, the Trustee shall exercise such of the rights and power vested in it by the Senior Indenture, and use the same degree of care and skill in their exercise, as a prudent Person would exercise in the conduct of such Person's own affairs.

The Trustee under the Senior Indenture shall be a corporation or banking association organized and doing business under the laws of the United States of America or of any state, authorized under such laws to exercise corporate trust powers, which has a combined capital and surplus of at least $50,000,000, or is an affiliate of, or has a contractual relationship with, a corporation or banking association meeting such capital and surplus requirement which guarantees the obligations and liabilities of the proposed trustee, and which is subject to supervision or examination by federal or state banking authority. If at any time the Trustee shall cease to be eligible in accordance with the provision described above, it shall resign promptly in the manner and with the effect specified in the Senior Indenture.

RESIGNATION OR REMOVAL OF TRUSTEE; APPOINTMENT OF SUCCESSOR TRUSTEE

No resignation or removal of the Trustee and no appointment of a successor Trustee pursuant to the Senior Indenture shall become effective until the acceptance of appointment by the successor Trustee under the Senior Indenture.

The Trustee may resign at any time by giving written notice to the Commission. Upon receiving such notice of resignation, the Commission shall promptly appoint a successor Trustee by an instrument in writing. If an instrument of acceptance has not been delivered to the resigning Trustee within 30 days after the giving of such notice of resignation, the resigning Trustee or any Bondholder may petition a court of competent jurisdiction for the appointment of a successor Trustee.

Prior to the occurrence and continuance of an Event of Default under the Senior Indenture, or after the curing or waiver of any such Event of Default, the Commission or the holders of a majority in aggregate principal amount of the Outstanding Bonds, may remove the Trustee and shall appoint a successor Trustee. In the event there shall have occurred and be continuing an Event of Default under the Senior Indenture, the holders of a majority in aggregate principal amount of the Outstanding Bonds may remove the Trustee and shall appoint a successor Trustee. In each instance, such removal and appointment shall be accomplished by an instrument or concurrent instruments in writing signed by the Commission or such holders and delivered to the Trustee, the Commission, the holders of the Outstanding Bonds and the Successor Trustee.

If at any time: (1) the Trustee shall cease to be eligible and qualified under the Senior Indenture and shall fail or refuse to resign after written request to do so by the Commission or the holder of any Bond, or (2) the Trustee shall become incapable of acting or shall be adjudged insolvent, or a receiver of the Trustee or its property shall be appointed, or any public officer shall take charge or control of the Trustee, its property or affairs for the purpose of rehabilitation, conservation or liquidation, then in either such case (i) the Commission may remove the Trustee and appoint a successor Trustee in accordance with the provisions of the immediately preceding paragraph; or (ii) any holder of a Bond then Outstanding may, on behalf of the holders of all Outstanding Bonds, petition a court of competent jurisdiction for removal of the Trustee and appointment of a successor Trustee.

The Commission shall give written notice of each resignation or removal of the Trustee and each appointment of a successor Trustee to each holder of Bonds then Outstanding as listed in the Bond Register. Each such notice shall include the name and address of the applicable corporate trust office of the successor Trustee.

SUPPLEMENTAL INDENTURES WITHOUT BONDHOLDERS' CONSENT

The Senior Indenture provides that the Commission and the Trustee may from time to time and at any time enter into Supplemental Indentures, without the consent of or notice to any Bondholder, to effect any one or more of the following: (a) cure any ambiguity, defect or omission or correct or supplement any provision in the Senior Indenture or in any Supplemental Indenture; (b) grant to or confer upon the Trustee for the benefit of the Bondholders any additional rights, remedies, powers, authority or security that may lawfully be granted to or conferred upon the Bondholders or the Trustee which are not contrary to or inconsistent with the Senior Indenture as then in effect or to subject to the pledge and lien of the Senior Indenture additional revenues, properties or collateral including Defeasance Obligations; (c) add to the covenants and agreements of the Commission in the Senior Indenture other covenants and agreements thereafter to be observed by the Commission or to surrender any right or power in the

Senior Indenture reserved to or conferred upon the Commission which are not contrary to or inconsistent with the Senior Indenture as then in effect; (d) permit the appointment of a co-trustee under the Senior Indenture; (e) modify, alter, supplement or amend the Senior Indenture in such manner as shall permit the qualification of the Senior Indenture, if required, under the Trust Indenture Act of 1939, the Securities Act of 1933 or any similar federal statute hereafter in effect; (f) make any other change in the Senior Indenture that is determined by the Trustee not to be materially adverse to the interests of the Bondholders; (g) implement the issuance of Additional Bonds permitted under the Senior Indenture; or (h) if all Bonds in a series are book entry Bonds, amend, modify, alter or replace any letter of representations or other provisions relating to book entry Bonds. The Trustee shall not be obligated to enter into any such Supplemental Indenture which adversely affects the Trustee's own rights, duties or immunities under the Senior Indenture.

SUPPLEMENTAL INDENTURES REQUIRING BONDHOLDERS' CONSENT

The Commission and the Trustee, at any time and from time to time, may execute and deliver a Supplemental Indenture for the purpose of making any modification or amendment to the Senior Indenture, but only with the written consent, given as provided in the Senior Indenture, of the holders of at least a majority in aggregate principal amount of the Bonds Outstanding at the time such consent is given, and in case less than all of the Bonds then Outstanding are affected by the modification or amendment, of the holders of at least a majority in aggregate principal amount of the Bonds so affected and Outstanding at the time such consent is given; provided, however, that if such modification or amendment will, by its terms, not take effect so long as any Bonds so affected remain Outstanding, the consent of the holders of such Bonds shall not be required and such Bonds shall not be deemed to be Outstanding for the purpose of any calculation of Outstanding Bonds under these provisions. Notwithstanding the foregoing, no modification or amendment contained in any such Supplemental Indenture shall permit any of the following, without the consent of each Bondholder whose rights are affected thereby: (a) a change in the terms of stated maturity or redemption of any Bond or of any installment of interest thereon; (b) a reduction in the principal amount of or redemption premium on any Bond or in the rate of interest thereon or a change in the coin or currency in which such Bond is payable; (c) the creation of a lien on or a pledge of any part of the Trust Estate which has priority over or parity with (to the extent not permitted under the Senior Indenture) the lien or pledge granted to the Bondholders under the Senior Indenture (but this provision shall not apply to the release of any part of the Trust Estate as opposed to the creation of a prior or parity lien or pledge); (d) the granting of a preference or priority of any Bond or Bonds over any other Bond or Bonds, except to the extent permitted in the Senior Indenture; (e) a reduction in the aggregate principal amount of Bonds of which the consent of the Bondholders is required to effect any such modification or amendment; or (f) a change in the provisions of the Senior Indenture provisions relating to amendments and supplements. Notwithstanding the foregoing, the holder of any Bond may extend the time for payment of the principal of or interest on such Bond; provided, however, that upon the occurrence of an Event of Default, funds available under the Senior Indenture for the payment of the principal of and interest on the Bonds shall not be applied to any payment so extended until all principal and interest payments which have not been extended have first been paid in full. Notice of any Supplemental Indenture executed pursuant to the provisions described above shall be given to the Bondholders promptly following the execution thereof.

CONSENTS OF BONDHOLDERS AND OPINIONS

Each Supplemental Indenture executed and delivered pursuant to the provisions described under "Supplemental Indentures Requiring Bondholders' Consent" shall take effect only when and as provided below. A copy of such Supplemental Indenture (or brief summary thereof or reference thereto in form approved by the Trustee), together with a request to Bondholders for their consent thereto in form satisfactory to the Trustee, shall be sent by the Trustee to Bondholders, at the expense of the Commission, by first class mail, postage prepaid, provided that a failure to mail such request shall not affect the validity of the Supplemental Indenture when consented to as provided in the Senior Indenture. Such Supplemental Indenture shall not be effective unless and until there shall have been filed with the Trustee (a) the written consents of Bondholders of the percentage of Bonds specified above under "Supplemental Indentures Requiring Bondholders' Consent" given as provided in the Senior Indenture, and (b) an opinion of counsel acceptable to the Trustee stating that (1) the execution of such Supplemental Indenture is authorized or permitted by the Senior Indenture and (2) all conditions precedent to the execution and delivery of such Supplemental Indenture have been complied with, and an opinion of Bond Counsel that the execution and performance of such Supplemental Indenture shall not, in and of itself, adversely affect the federal income tax status of any Bonds, the interest on which is not included in gross income for federal income tax purposes. Any such consent shall be binding upon the Bondholder giving such consent and upon any subsequent holder of such Bonds and of any Bonds issued in exchange therefor or in lieu thereof (whether or not such subsequent Bondholder has notice thereof), unless such consent is revoked in writing by the Bondholder giving such consent or a subsequent holder of such Bonds by filing such revocation with the Trustee prior to the date the Trustee receives the material required in clauses (a) and (b) above.

Notwithstanding anything else in the Senior Indenture, if a Supplemental Indenture is to become effective on the same date as the date of issuance of Additional Bonds, the consents of the underwriters or purchasers of such Additional Bonds shall be counted for purposes of the Senior Indenture.

The Senior Indenture provides that Bonds which are to be disregarded under the last sentence of the definition of "Outstanding" shall not be deemed Outstanding for the purpose of consent or other action or any calculation of Outstanding Bonds provided for in Article X of the Senior Indenture, providing for Supplemental Indentures. At the time of any consent or other action taken under Article X of the Senior Indenture, providing for Supplement Indentures, or elsewhere in the Senior Indenture, the Commission shall furnish the Trustee a certificate of a Commission Official, upon which the Trustee may rely, describing all Bonds so to be excluded.

DISCHARGE OF BONDS

If (a) the principal of any Bonds and the interest due or to become due thereon, together with any redemption premium required by redemption of any of the Bonds prior to maturity, shall be paid, or is caused to be paid, or is provided for as described below under "Defeasance," at the times and in the manner to which reference is made in the Bonds, according to the true intent and meaning thereof, or the outstanding Bonds shall have been paid and discharged in accordance with the Senior Indenture, and (b) all of the covenants, agreements, obligations, terms and conditions of the Commission under the Senior Indenture shall have been kept, performed and observed and there shall have been paid to the Trustee, the Bond Registrar and the Paying Agents all sums of money due or to become due to them in accordance with the terms and provisions of the Senior Indenture, then the right, title and interest of the Trustee in the Trust Estate shall thereupon cease and the Trustee, on request of the Commission and at the expense of the Commission, shall release the Senior Indenture and the Trust Estate and shall execute such documents to evidence such release as may be reasonably required by the Commission and shall turn over to the Commission, or to such other Person as may be entitled to receive the same, all balances remaining in any Funds under the Senior Indenture except for amounts required to pay such Bonds or, subject to the provisions of the Senior Indenture, held unclaimed in respect of Bonds which have matured or been redeemed pursuant to the Senior Indenture.

DEFEASANCE

(a) If the Commission deposits with the Trustee moneys or Defeasance Obligations which, together with the earnings thereon, are sufficient to pay the principal amount of and redemption premium on any particular Bond or Bonds becoming due, either at maturity, by means of mandatory sinking fund redemption or by call for optional redemption or otherwise, together with all interest accruing thereon to the due date or Redemption Date, and pays or makes provision for payment of all fees, costs and expenses of the Commission and the Trustee due or to become due with respect to such Bonds, all liability of the Commission with respect to such Bond or Bonds shall cease, such Bond or Bonds shall be deemed not to be Outstanding under the Senior Indenture and the holder or holders of such Bond or Bond shall be restricted exclusively to the moneys or Defeasance Obligations so deposited, together with any earnings thereon, for any claim of whatsoever nature with respect to such Bond or Bonds, and the Trustee shall hold such moneys, Defeasance Obligations and earnings in trust for such holder or holders. In determining the sufficiency of the moneys and Defeasance Obligations deposited pursuant to the above provisions, the Trustee shall receive, at the expense of the Commission, and may rely upon: (a) a verification report of a firm of nationally recognized independent certified public accountants or other qualified firm acceptable to the Commission and the Trustee; provided, however, that the Trustee may waive the requirement for the provision of such verification report if the Bonds which are being defeased will be paid and cancelled within 90 days and the Trustee can calculate the interest to be paid on such Bonds to and including such payment or redemption date; and (b) an opinion of Bond Counsel to the effect that (1) all conditions set forth in Article XI of the Senior Indenture (Discharge and Defeasance) have been satisfied and (2) that defeasance of any Bonds will not cause interest on the Bonds to be includable in gross income for federal income tax purposes. Upon such defeasance, all rights of the Commission, including its right to provide for optional redemption or prepayment of any Bonds on dates other than planned pursuant to such defeasance shall cease unless specifically retained by filing a written notification thereof with the Trustee at the time the Defeasance Obligations are deposited with the Trustee.

(b) At such times as a Bond shall be deemed to be paid under the Senior Indenture, as aforesaid, it shall no longer be secured by or entitled to the benefits of the Senior Indenture, except for the purposes of any such payment from such money or Defeasance Obligations.

(c) In case any of the Bonds, for the payment of which moneys or Defeasance Obligations have been deposited with the Trustee pursuant to the provisions described in paragraph (a) above, are to be redeemed on any date prior to their maturity, the Commission shall give to the Trustee in form satisfactory to it irrevocable instruments to give notice of redemption of such Bonds on the redemption date for such Bonds.

(d) In addition to the foregoing notice, in the event such Bonds to be redeemed are not by their terms subject to redemption within the next succeeding 60 days, the Trustee shall give further notice to the Bondholders that the deposit required by paragraph (a) above has been made with the Trustee and that said Bonds are deemed to have been paid in accordance with Article XI of the Senior Indenture and stating the maturity or redemption date or dates upon which moneys are to be available for the payment of the principal of and redemption premium, if any, on said Bonds; such further notice shall be given promptly following the making of the deposit required by paragraph (a) above; and such further notice also shall be given in the manner set forth in "Notice of Redemption" provisions of the Senior Indenture, but no defect in said further notice nor any failure to give all or any portion of such further notice shall in any manner defeat the effectiveness of the deposit.

(e) If the Commission has retained any rights pursuant to paragraphs (a) and (b) above, notice thereof shall be sent to Bondholders of such Bonds as soon as practicable and not later than any notice required by the provisions described in subsections (c) and (d) above.

[End of Appendix C]

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APPENDIX D

FORM OF OPINION OF CO-BOND COUNSEL

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APPENDIX D

BELOW IS THE PROPOSED FORM OF
OPINION OF CO-BOND COUNSEL EXPECTED TO
BE DELIVERED IN CONNECTION WITH THE
ISSUANCE OF THE SERIES B OF 2020 BONDS

October 7, 2020

RE: $241,625,000 Pennsylvania Turnpike Commission Turnpike Revenue Bonds, Series B of 2020

To the Purchasers of the Bonds:

We have acted as Co-Bond Counsel to the Pennsylvania Turnpike Commission (the "Commission") in connection with the issuance by the Commission of its $241,625,000 Turnpike Revenue Bonds, Series B of 2020 (the "Bonds") on the date hereof.

The Bonds are issued under and pursuant to an Act of the General Assembly of Pennsylvania (the "General Assembly") approved July 18, 2007, P.L. 169, No. 44 ("Act 44"), as amended and supplemented by an Act of the General Assembly approved November 25, 2013, P. L. 974, No. 89 ("Act 89"); various Acts of the General Assembly approved on several dates, including the Act of May 21, 1937, P. L. 774; the Act of May 24, 1945, P. L. 972; the Act of February 26, 1947, P. L. 17; the Act of May 23, 1951, P. L. 335; the Act of August 14, 1951, P. L. 1232; and the Act of September 30, 1985, P. L. 240 to the extent not repealed by Act 44 (collectively with Act 44 and Act 89, the "Enabling Acts"), resolutions of the Commission adopted on October 7, 2019, July 21, 2020 and September 15, 2020 (together, the "Resolutions"), and pursuant to and under an Amended and Restated Trust Indenture dated as of March 1, 2001, between the Commission and U.S. Bank National Association (successor trustee to First Union National Bank), as trustee, as amended and supplemented (as previously amended and supplemented, the "Restated Indenture"), including as supplemented by Supplemental Trust Indenture No. 57 dated as of October 1, 2020 (the "Supplemental Indenture," and together with the Restated Indenture, the "Indenture"). Capitalized terms used and not otherwise defined herein shall have the meanings ascribed to them in the Indenture.

The Bonds will bear interest at the fixed rates and mature in the amounts and on the dates set forth in the Official Statement of the Commission related to the Bonds. The Bonds will be issued only as fully registered bonds, in denominations of $5,000 and integral multiples of $5,000 in excess thereof. The Bonds are subject to mandatory and optional redemption prior to maturity as more fully described in the Indenture.

The proceeds of the Bonds will be used to finance the costs of: (i) various capital expenditures set forth in the Commission's ten year capital plan, including any amendments thereto, or any prior capital plan including, but not limited to, the reconstruction of roadbed and roadway, the widening, replacing and redecking of certain bridges and/or the rehabilitation of certain interchanges; (ii) funding a required deposit to the Debt Service Reserve Fund; (iii) funding a portion of interest on the Bonds and the Commission's Turnpike Revenue Bonds, Series A of 2019; and (iv) issuing the Bonds.

We have examined the proceedings relating to the authorization and issuance of the Bonds, including, among other things: (a) the Enabling Acts; (b) certified copies of the Resolutions; (c) executed copies of the Restated Indenture and the Supplemental Indenture; (d) various certificates executed by the Commission and/or the Trustee including certificates as to the authentication and delivery of the Bonds and a certificate with regard to Sections 103 and 141 through 150 of the Internal Revenue Code of 1986, as amended (the "Code"); (e) the opinion of Doreen A. McCall, Esquire, Chief Counsel to the Commission, on which we have relied; (f) the Form 8038-G of the Commission with respect to the Bonds; (g) other documents, certificates and instruments listed in the Closing Memorandum in respect of the Bonds filed with the Trustee on the date of original delivery of the Bonds; and (h) such constitutional and statutory provisions and such other resolutions, certificates, instruments and documents as we have deemed necessary or appropriate in order to enable us to render an informed opinion as to matters set forth herein. We have also examined a fully executed and authenticated Bond and we assume all other Bonds are in such form and are similarly executed and authenticated.

In rendering our opinion, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to the original documents of all documents submitted to us as copies and the authenticity of certificates of public officials. As to any facts material to our opinion, we have assumed the validity of and have not undertaken any investigation to verify the factual matters set forth in such agreements, certificates and other documents, and we have relied on the covenants, warranties and representations made by the Commission and the Trustee in such certificates and in the Indenture. We have also assumed that the documents referred to herein have been duly authorized by all parties thereto other than the Commission and are, where appropriate, legally binding obligations of, and enforceable in accordance with their terms against, all such other parties.

Based upon and subject to the foregoing and the additional assumptions, qualifications and limitations set forth below, we are of the opinion that:

1. The Commission is a body corporate and politic, is validly existing under the laws of the Commonwealth of Pennsylvania (the "Commonwealth") and has the corporate power to execute and deliver the Supplemental Indenture and to issue and deliver the Bonds.

2. The Bonds have been duly authorized, executed and delivered by the Commission, are valid and binding limited obligations of the Commission, payable as to principal, interest and all other obligations thereunder solely from and enforceable only against the revenues and receipts derived from the Trust Estate and any other properties and rights assigned or pledged under the Indenture as security for the debt evidenced by the Bonds, except as such enforcement may be limited by laws relating to bankruptcy, insolvency, reorganization, receivership, arrangement, moratorium and other laws affecting creditors' rights, by equitable principles, whether considered at law or in equity, and by the exercise of judicial discretion in appropriate cases.

3. The Supplemental Indenture has been duly authorized, executed and delivered by the Commission and is enforceable against the Commission in accordance with its terms, except as such enforcement may be limited by laws relating to bankruptcy, insolvency, reorganization, receivership, arrangement, moratorium and other laws affecting creditors' rights, by equitable principles, whether considered at law or in equity, and by the exercise of judicial discretion in appropriate cases.

4. Under the laws of the Commonwealth, as enacted and construed on the date hereof, the interest on the Bonds is exempt from Pennsylvania personal income tax and Pennsylvania corporate net income tax.

5. Interest on the Bonds will be excluded from gross income for purposes of federal income taxation under existing statutes, regulations, rulings and court decisions. The opinion set forth in the preceding sentence is subject to the condition that the Commission complies with all applicable federal income tax law requirements that must be satisfied subsequent to the issuance of the Bonds in order that interest thereon continues to be excluded from gross income for purposes of federal income taxation. The Commission has covenanted to comply with all such requirements. Failure to comply with certain of such requirements could cause the interest on the Bonds to be includable in gross income retroactive to the date of issuance of the Bonds. Interest on the Bonds is not treated as an item of tax preference under Section 57 of the Code for purposes of the federal alternative minimum tax.

We express no opinion regarding any other tax consequences related to the ownership or disposition of, or the amount, accrual or the receipt of interest on, the Bonds.

We express no opinion herein on the adequacy, completeness or accuracy of any official statement, placement memorandum or other disclosure document pertaining to the offering of the Bonds. We express no opinion as to the availability of specific performance or other equitable relief.

We call to your attention that the Bonds do not pledge the general credit or taxing power of the Commonwealth or any political subdivision, agency or instrumentality of the Commonwealth, nor shall the Commonwealth or any political subdivision, agency or instrumentality thereof be liable for the payment of the principal of or interest on the Bonds (other than the Commission, to the limited extent described in the Indenture).

This opinion is rendered on the basis of federal law and the laws of the Commonwealth as enacted and construed on the date hereof, and we express no opinion with respect to the laws of any other state or jurisdiction.

This opinion is limited to the matters expressly stated herein. No implied opinions are to be inferred to extend this opinion beyond the matters expressly stated herein. This opinion is given as of the date hereof, and we express no opinion as to any matter not set forth in the numbered paragraphs herein. We assume no obligation to update or supplement this opinion to reflect, or to otherwise advise you of, any facts or circumstances which may hereafter come to our attention or any changes in facts, circumstances or law which may hereafter occur.

This opinion is rendered solely for your benefit, may be relied upon by you solely in connection with the transactions contemplated hereby, and may not be relied upon by you for any other purpose, or by any other person for any purpose, in each case without our written consent.

Very truly yours,

APPENDIX E

DEBT SERVICE REQUIREMENTS OF THE TURNPIKE SENIOR, SUBORDINATE AND SPECIAL REVENUE BONDS

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APPENDIX E
DEBT SERVICE REQUIREMENTS OF THE TURNPIKE SENIOR, SUBORDINATE AND SUBORDINATE SPECIAL REVENUE BONDS

Fiscal Year	Existing Debt Service from Senior Revenue Bonds (Excluding EB-5 Loans)[1,2,3,4,5,6,7,9,10]	EB-5 Loans[8]	Existing Debt Service from Senior Revenue Bonds (Including EB-5 Loans)[1,2,3,4,5,6,7,8,9,10]	Turnpike Revenue Bonds, Series B of 2020 Principal[3,5]	Turnpike Revenue Bonds, Series B of 2020 Interest[1,3,4,5]	Turnpike Revenue Bonds, Series B of 2020 Total[1,3,5]	Total Debt Service from Senior Revenue Bonds [1,2,3,4,5,6,7,8,9,10]	Total Debt Service from Subordinate Revenue Bonds [1,5,6]	Total Debt Service from MLF Enhanced Subordinate Special Revenue Bonds[5,6]	Aggregate Debt Service[1,2,3,4,5,6,7,8,9,10]
2021	$ 308,503,699	$ 8,886,028	$ 317,389,727	$ -	$ -	$ -	$ 317,389,727	$ 356,523,473	$ 48,817,765	$ 722,730,965
2022	572,339,092	12,450,928	584,790,020				584,790,020	360,594,194	49,480,791	994,865,005
2023	321,347,129	15,206,222	336,553,351				336,553,351	363,001,256	57,003,068	756,557,675
2024	617,565,383	16,921,200	634,486,583	4,135,000	1,812,188	5,947,188	640,433,771	363,952,922	57,152,748	1,061,539,441
2025	463,292,776	18,922,069	482,214,845	4,345,000	11,874,500	16,219,500	498,434,345	368,434,729	58,181,754	925,050,828
2026	535,782,257	21,891,271	557,673,528	4,560,000	11,657,250	16,217,250	573,890,778	373,157,628	58,442,798	1,005,491,204
2027	282,001,014	21,889,500	303,890,514	4,790,000	11,429,250	16,219,250	320,109,764	393,201,110	75,939,497	789,250,371
2028	242,133,995	21,889,000	264,022,995	5,030,000	11,189,750	16,219,750	280,242,745	397,744,786	77,469,773	755,457,304
2029	248,181,655	21,893,250	270,074,905	5,280,000	10,938,250	16,218,250	286,293,155	407,742,807	79,247,302	773,283,264
2030	268,379,266	21,891,250	290,270,516	5,545,000	10,674,250	16,219,250	306,489,766	408,874,739	77,619,343	792,983,848
2031	275,408,955	21,892,500	297,301,455	5,820,000	10,397,000	16,217,000	313,518,455	412,807,300	79,175,802	805,501,557
2032	304,016,755	21,886,000	325,902,755	6,115,000	10,106,000	16,221,000	342,123,755	414,112,474	81,284,519	837,520,748
2033	308,073,975	21,896,250	329,970,225	6,420,000	9,800,250	16,220,250	346,190,475	415,691,833	83,575,935	845,458,242
2034	312,224,305	21,886,500	334,110,805	6,740,000	9,479,250	16,219,250	350,330,055	421,422,352	85,834,455	857,586,863
2035	318,347,057	21,891,750	340,238,807	7,075,000	9,142,250	16,217,250	356,456,057	428,593,391	87,504,466	872,553,915
2036	319,984,850	21,885,250	341,870,100	7,430,000	8,788,500	16,218,500	358,088,600	432,566,655	92,891,562	883,546,816
2037	319,305,697	21,896,500	341,202,197	7,800,000	8,417,000	16,217,000	357,419,197	438,168,094	96,006,802	891,594,094
2038	310,311,332	21,898,500	332,209,832	8,190,000	8,027,000	16,217,000	348,426,832	442,058,255	98,415,271	888,900,358
2039	315,227,806	21,890,500	337,118,306	8,600,000	7,617,500	16,217,500	353,335,806	443,759,512	83,156,011	880,251,330
2040	300,596,560	21,891,750	322,488,310	9,030,000	7,187,500	16,217,500	338,705,810	375,484,118	59,066,856	773,256,784
2041	316,193,782	21,890,500	338,084,282	9,485,000	6,736,000	16,221,000	354,305,282	431,672,161	60,008,620	845,986,063
2042	296,743,496	21,895,500	318,638,996	9,955,000	6,261,750	16,216,750	334,855,746	427,454,590	53,099,583	815,409,920
2043	300,763,631	21,890,000	322,653,631	10,455,000	5,764,000	16,219,000	338,872,631	261,265,268	38,842,231	638,980,129
2044	316,000,512	21,883,000	337,883,512	10,975,000	5,241,250	16,216,250	354,099,762	238,600,854	24,654,434	617,355,050
2045	274,348,235	21,888,000	296,236,235	11,525,000	4,692,500	16,217,500	312,453,735	184,438,931	5,176,815	502,069,482
2046	216,795,587	21,887,750	238,683,337	12,105,000	4,116,250	16,221,250	254,904,587	168,099,356		423,003,944
2047	187,877,526	21,890,750	209,768,276	12,710,000	3,511,000	16,221,000	225,989,276	114,915,281		340,904,557
2048	143,530,451	21,895,000	165,425,451	13,345,000	2,875,500	16,220,500	181,645,951	76,425,269		258,071,220
2049	120,679,070	21,893,500	142,572,570	14,010,000	2,208,250	16,218,250	158,790,820	73,315,600		232,106,420
2050	93,492,971	21,889,500	115,382,471	14,710,000	1,507,750	16,217,750	131,600,221	9,620,000		141,220,221
2051		21,886,000	21,886,000	15,445,000	772,250	16,217,250	38,103,250			38,103,250
2052		10,575,750	10,575,750				10,575,750			10,575,750
2053		10,576,750	10,576,750				10,576,750			10,576,750
2054		4,919,250	4,919,250				4,919,250			4,919,250
TOTAL	**$ 9,209,448,823**	**$ 667,617,468**	**$ 9,877,066,291**	**$ 241,625,000**	**$ 202,224,188**	**$ 443,849,188**	**$ 10,320,915,478**	**$ 10,003,698,938**	**$ 1,668,048,200**	**$ 21,992,662,616**

(1) All variable rate debt, unless subject to an interest rate swap agreement, is shown at an assumed rate of 4.0% plus the fixed spread. All variable rate debt which is swapped to a fixed rate is shown at the fixed swap rate. As only a portion of principal on the 2018A-1, 2018B Turnpike Revenue Bonds (SIFMA Index Notes), Second Series of 2019, and Series of 2020 are swapped, the interest rate is a calculated as a weighted average between a) an assumed rate of 4.0% plus the fixed spread and b) the swap rate plus the fixed spread, based on the outstanding principal amounts of unhedged and hedged bonds. Assumes that the entire principal amount of the Series A of 2020 Bonds are hedged during the term of such bonds although a de minimis amount thereof will be unhedged from time to time due to differing rounding conventions for such bonds and the related swap.

(2) Interest reflects anticipated receipt of federal subsidy with respect to Build America Bonds, subject to applying the 5.7% reduction from federal fiscal year 2021 through federal fiscal year 2024. For information regarding the effects of sequestration on the federal subsidy payable with respect to the Commission's outstanding Build America Bonds, see "CURRENT RISK FACTORS - Reductions in federal subsidy payable to the Commission for its outstanding Build America Bonds due to sequestration" in this Official Statement.

(3) Does not reflect any future refunding of 2014B-1, 2018A-1, 2018B Turnpike Revenue Bonds (SIFMA Index Notes), Second Series of 2019, Series of 2020, and Series A of 2020 Bonds prior to their respective maturity dates. The Commission expects that it will refund such bonds prior to maturity subject to market conditions at the time. For the purposes of this table, the Second Series of 2019, Series of 2020, and Series A of 2020 Bonds are shown maturing at the term of the associated Letter of Credit. See APPENDIX A - "THE PENNSYLVANIA TURNPIKE COMMISSION - CERTAIN FINANCIAL INFORMATION - Future Financing Considerations."

(4) Interest net of capitalized interest; does not reflect any expected earnings credited against debt service. Excludes interest funded by the Series B of 2020 bonds. See "ESTIMATED SOURCES AND USES OF FUNDS."

(5) Totals may not add due to rounding.

(6) Interest amounts are inclusive of compounded interest on the Convertible Capital Appreciation Bonds and Capital Appreciation Bonds.

(7) All fixed rate debt, unless subject to an interest rate swap agreement, is shown at the actual interest rate. All fixed rate debt which is swapped to a floating rate is shown at an assumed rate of 4.0% plus the fixed spread.

(8) Includes eight tranches of EB-5 Loans (3 tranches issued on March 18, 2016, the fourth tranche issued on May 11, 2016, the fifth tranche issued on February 21, 2018, the sixth tranche issued on November 13, 2018, the seventh tranche issued on November 6, 2019, and the eighth tranche issued on January 22, 2020). First five years of debt service is interest only. Thereafter, assumes 30 year level debt service takeout with Turnpike Revenue Bonds.

(9) Reflects full year of debt service for Fiscal Year 2021

(10) Does not reflect the Line of Credit which has not been drawn.

APPENDIX F

TRAFFIC AND REVENUE STUDY

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77 Hartland Street, Suite 201
East Hartford, Connecticut 06108
tel: 860 529-7615

September 4, 2020

Mr. Richard Dreher
Acting Chief Financial Officer
Pennsylvania Turnpike Commission
700 South Eisenhower Boulevard
Middletown, PA 17057

Subject: Toll Revenue Impact of Turnpike Commission's Decision of Moving Pennsylvania Turnpike System Toll Rate Changes from October 1, 2020 to January 3, 2021

Dear Mr. Dreher:

The traffic and toll revenue forecasts from CDM Smith's most recent study ("Pennsylvania Turnpike Commission 2020 Traffic and Revenue Bring Down Letter", May 29, 2020) assumed the 45% Video surcharge for the Ticket System and Mon-Fayette Expressway and the next 6% annual toll increase on the Turnpike System would occur on October 1, 2020. It further assumed there would not be any toll increase in January 2021. The recent Turnpike Commission decision on July 21, 2020, however, approved a toll increase that will be effective beginning January 3, 2021. No changes will be made to the current 2020 toll rates until that time.

The impact of this decision is a reduction in the estimated Turnpike System toll revenue reported in CDM Smith's May 29, 2020 report since increased toll revenue will not be realized in October, November, and December 2020. The toll revenue reduction during these final three months of 2020 is estimated to be $34.6 million. All toll rate assumptions in the CDM Smith May 29, 2020 report remain valid for 2021, thus no further toll adjustments would be required in 2021 and beyond.

We hope this analysis meets your needs. Please feel free to contact us with any questions or comments.

Sincerely,

Yogesh K. Patel
Project Manager
CDM Smith Inc.

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77 Hartland Street, Suite 201
East Hartford, Connecticut 06108
tel: 860 529-7615

May 29, 2020

Mr. Nikolaus Grieshaber
Chief Financial Officer
Pennsylvania Turnpike Commission
700 South Eisenhower Boulevard
Middletown, PA 17057

Subject: Pennsylvania Turnpike Commission 2020 Traffic and Toll Revenue Bring Down Letter

Dear Mr. Grieshaber:

The Pennsylvania Turnpike Commission (PTC or Commission) has asked CDM Smith to prepare this Bring Down Letter (2020 Bring Down Letter) to be used in support of the Commission's ongoing capital improvement program and other funding requirements. This letter provides an update to the 2019 Bring Down Letter, dated April 29, 2019, which in turn was an update to the 2018 Traffic and Toll Revenue Forecast Study (2018 Forecast Study), dated April 20, 2018. The 2019 Bring Down Letter presented traffic and gross toll revenue forecasts from fiscal year (FY) 2017-18 through FY 2048-49. A fiscal year runs from June 1 through May 31. Actual traffic and revenue data were available through February 2019 for the 2019 Bring Down Letter and through April 2020 for the current 2020 Bring Down Letter.

This 2020 Bring Down Letter presents actual traffic and toll revenue data through April 2020 (14 months of additional data since completion of the 2019 Bring Down Letter), provides updated traffic and revenue forecasts through FY 2049-50, and compares the new forecasts with those from the 2019 Bring Down Letter. The updated forecasts reflect the following changes from the 2019 Bring Down Letter:

- E-ZPass market share estimates over the forecast period were reviewed and updated.
- Actual traffic and toll revenue data were updated to include information through April 2020.
- Revised toll adjustment assumptions for calendar year 2021, which is now scheduled for a six-percent increase (as opposed to the five-percent increase that was previously planned). Additionally, this increase is scheduled to occur in October 2020 rather than January 2021 and will include an additional 45-percent increase for cash tolls. It should be noted that these two toll adjustment assumptions are proposed and haven't been formally approved yet by the PTC Board. Absent their approval, an across the board five-percent toll increase would occur on or about January 1, 2021.

- A review and adjustment of short-term traffic and revenue growth rates was conducted through 2023 based on the most recent actual trends. Longer term growth rates beyond 2023 are based on those established in the 2019 Bring Down Letter.
- A review of the major roadway improvements for any changes since completion of the 2019 Bring Down Letter.
- And, perhaps most importantly, this forecast takes into account the impacts of the COVID-19 pandemic on estimated traffic and toll revenue over the forecast period.

These differences are described in more detail in the sections that follow below.

It is important to note that the intent of this Bring Down Letter is to review and revise, if warranted, the short-term forecasts developed as part of the 2019 Bring Down Letter. Any adjustments would be made based on the 14 months of new actual traffic and toll revenue experience since the 2019 Bring Down Letter, including COVID-19 impacts. Adjustments were made through FY 2025-26 to account for the estimated longer term COVID-19 impacts. However, beyond that, this Bring Down Letter does not include a re-evaluation of the longer-term economic growth forecasts; those remain unchanged from the 2019 Bring Down Letter.

The underlying socioeconomic trends and forecasts for Pennsylvania, the surrounding states, and the United States that formed the basis for the long-term traffic and toll revenue forecasts are provided in the 2018 Forecast Study.

Historical Toll Rate Increases and Current Toll Rates

Table 1 provides a summary of historical toll rate increases on the Turnpike System from 1987 to the most recent increase implemented on January 5, 2020. Rate increases are presented as a percent increase over the prior toll rate for cash/video and E-ZPass. Note that toll rate increases are generally applied systemwide, although occasional exemptions occur, as indicated in Table 1.

Periodic toll rate increases were implemented on the Turnpike System in 1987, 1991, 2004, and 2009. During the 2000's decade, E-ZPass was phased into the Turnpike System. Until 2011, cash and E-ZPass toll rates always increased by the same percent. The toll rate schedule implemented on January 2, 2011 created a differential between cash and E-ZPass, as E-ZPass rates were increased by 3.0 percent and cash toll were increased by 10.0 percent. Rate increases differed between cash and E-ZPass in the ensuing three years (2012, 2013, and 2014) further increasing the differential between cash and E-ZPass toll rates.

Table 1
Historical Toll Rate Increases
Pennsylvania Turnpike

Date	Percent Increase Cash/Video	Percent Increase E-ZPass	Comment
1/2/1987	40.0	NA	E-ZPass was not yet implemented on the Turnpike
6/1/1991	32.0	NA	E-ZPass was not yet implemented on the Turnpike
8/1/2004	42.5	42.5	
1/4/2009	25.0	25.0	No increase on Findlay Connector or MFE between Uniontown and Brownsville
1/3/2010	3.0	3.0	No increase on Findlay Connector
1/2/2011	10.0	3.0	No increase on Findlay Connector
1/1/2012	10.0	0.0	No increase on Findlay Connector
1/6/2013	10.0	2.0	
1/5/2014	12.0	2.0	No increase on Findlay Connector
1/4/2015	5.0	5.0	No increase on Findlay Connector
1/3/2016	6.0	6.0	No increase on Findlay Connector; DRB converted from ticket system to barrier system and rate changes implemented
1/8/2017	6.0	6.0	No increase on Findlay Connector or DRB
1/7/2018	6.0	6.0	No increase on Findlay Connector, DRB, or the Northeast Extension barrier facilities
4/29/2018	6.0	6.0	Northeast Extension barrier facilities only (1)
6/3/2018	6.0	6.0	Findlay Connector only (1)
1/6/2019	6.0	6.0	
10/27/2019	6.0	6.0	BVE, AKH, and Gateway only; 45% surcharge over cash rate added to video rate
1/5/2020	6.0	6.0	No increase on BVE, AKH, or Gateway

Note: Beginning in 2016, all cash toll rate increases also reflect video toll rate increases.

(1) Toll rate increase coincided with vehicle classification changes from a weight-based to an axle-based system.

Toll rate increases have occurred annually since 2009, occurring on or close to January 1 of each year. Since 2015, the percent toll rate increases have been identical for cash and E-ZPass. In 2015 the toll rates increased by 5.0 percent over the prior year. From 2016 to 2020, toll rates increased by 6.0 percent annually for both cash/video and E-ZPass. PTC policy has also been to implement a video toll surcharge upon conversion to all electronic tolling (AET); this has generally amounted to an additional 45 percent increase, making video rates about double E-ZPass rates. It is assumed that annual toll rate increases will occur through the forecast period, as described in the section Actual and Assumed Toll Rate Increases and listed in Table 13.

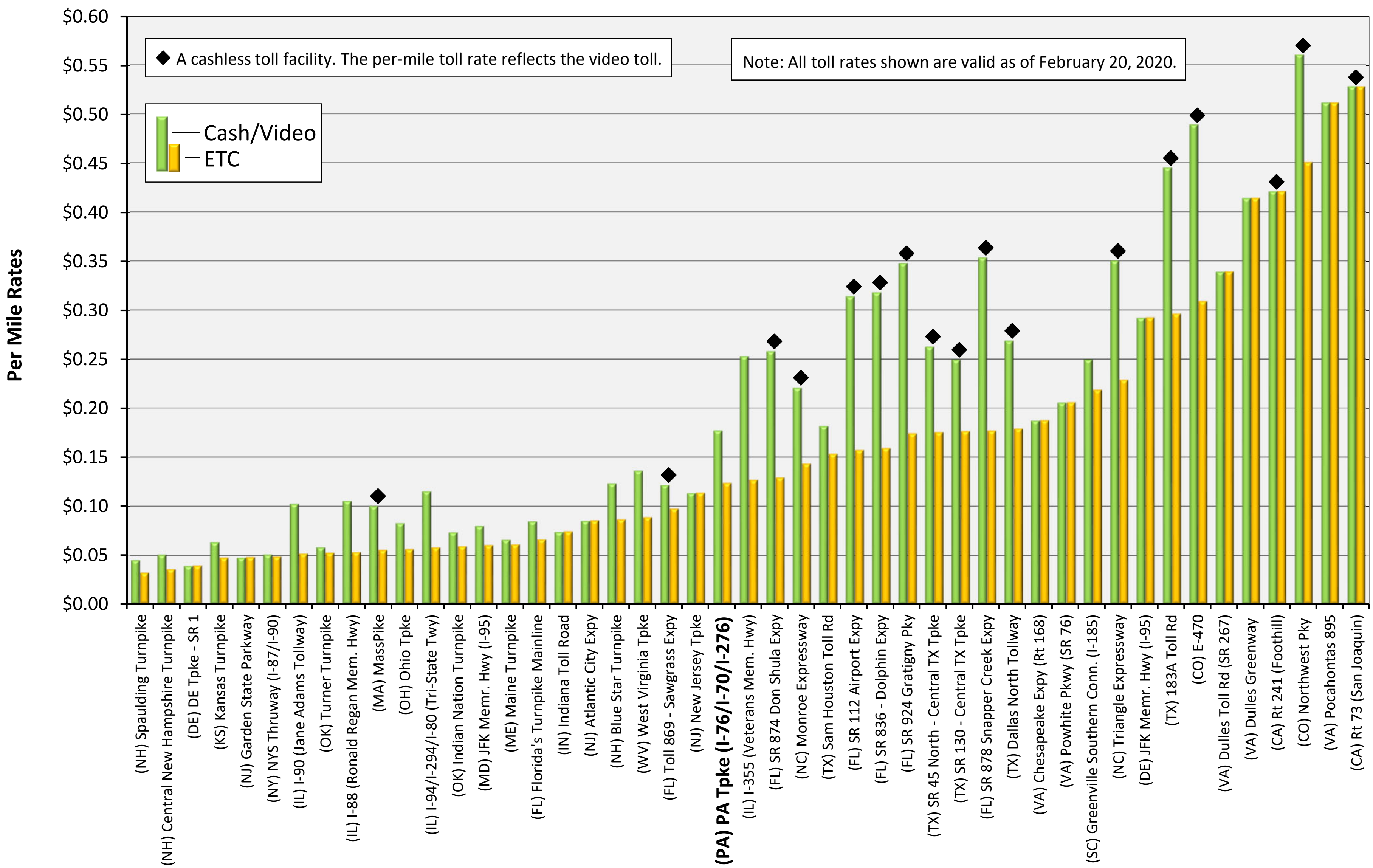
Figures 1 and 2 show the 2020 per-mile toll rates for a through trip on 47 U.S. toll facilities, for passenger cars and 5-axle commercial vehicles, respectively. Per-mile rates are shown for both cash/video and ETC transactions in each figure. If a facility is all electronic (does not accept cash payments), the video toll rate is shown as the equivalent of a cash toll rate. These facilities are marked with a diamond in Figures 1 and 2.

The per-mile through-trip toll rate is shown for the Pennsylvania Turnpike Mainline, which represents a trip on I-76/I-276 between New Jersey and Ohio. Figure 1 shows that even with the 12 consecutive annual toll increases since 2009, the passenger car per-mile toll rates on the Pennsylvania Turnpike System, at 12 cents per mile for E-ZPass customers and 18 cents per mile for cash customers, are still very reasonably priced compared to other toll facilities in the U.S.

Toll rates for 5-axle commercial vehicles (represented by weight class 6) are equivalent to 47 cents per mile for E-ZPass and 67 cents per mile for cash transactions for a through trip on the Pennsylvania Turnpike Mainline. It should be remembered that the majority of both passenger car and commercial vehicle trips are made using the more cost-effective E-ZPass payment method.

Annual Transaction and Gross Toll Revenue Trends

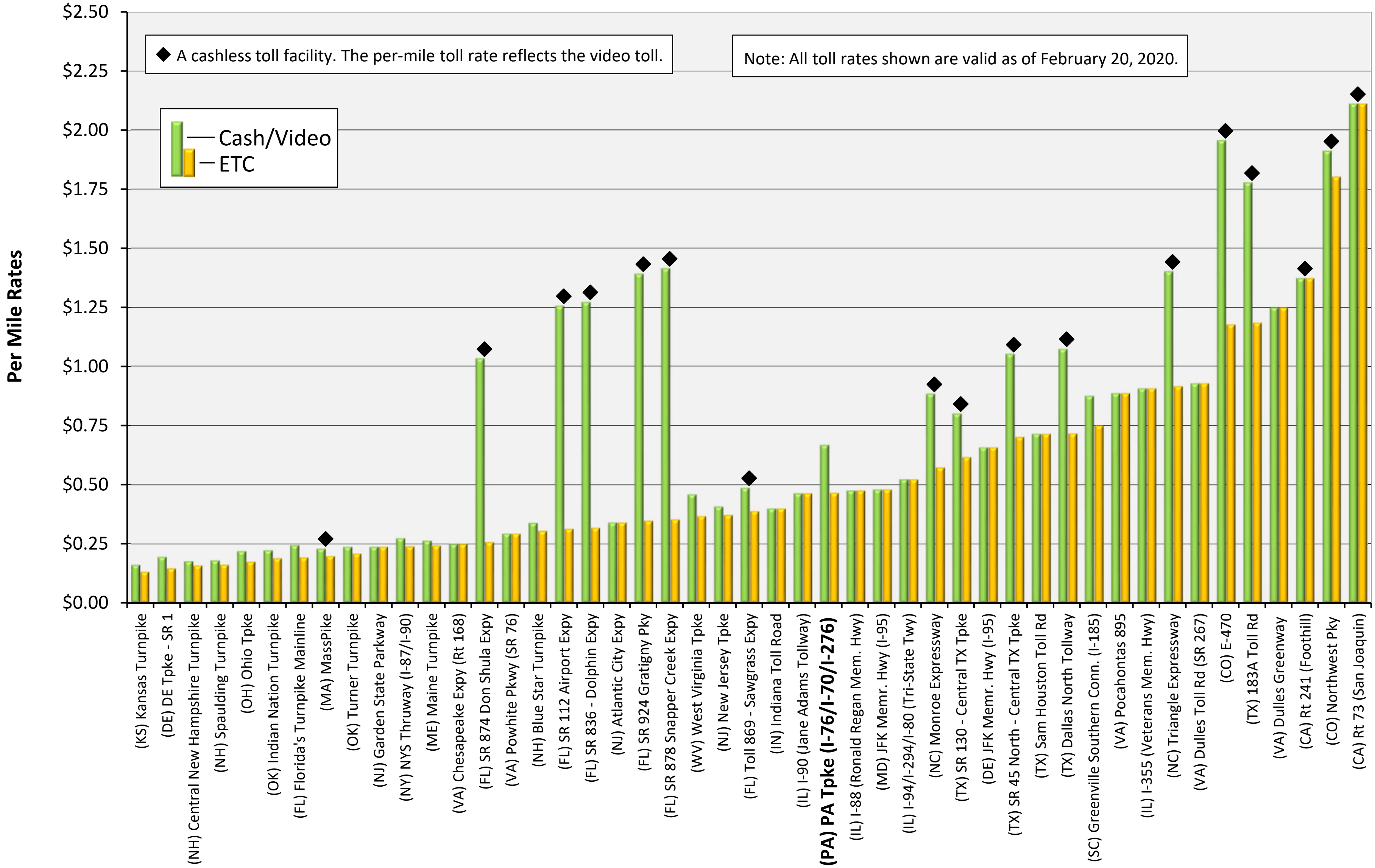
Table 2 provides a summary of annual systemwide transactions and gross toll revenue trends from FY 1994-95 through FY 2018-19. Notably, this table excludes non-revenue transactions from PTC's non-AET facilities. The Pennsylvania Turnpike System is a large, mature system that has demonstrated long-term growth in transactions and toll revenue. Between FY 1998-99 and FY 2008-09 there was only one toll rate increase (in 2004) and Turnpike transactions and gross toll revenue grew by an average annual rate of 1.8 percent and 5.8 percent, respectively. Conversely, in the 10 years from FY 2008-09 to FY 2018-19 there were toll rate increases every year. During this period Turnpike transactions grew by a comparatively lower average annual rate of 0.9 percent, while turnpike revenue grew by a higher average annual rate of 8.1 percent. In the most recently completed fiscal year (2018-19), traffic growth was 0.9 percent, while revenue growth was 11.0 percent, both equal to or larger than the average growth over the past 10 years.



COMPARISON OF 2020 PASSENGER CAR PER-MILE THROUGH TRIP TOLL RATES (DATA SORTED BY ETC TOLL RATES)

CDM Smith

FIGURE 1



COMPARISON OF 2020 FIVE-AXLE VEHICLE PER-MILE THROUGH TRIP TOLL RATES (DATA SORTED BY ETC TOLL RATES)

CDM Smith

FIGURE 2

Table 2
Annual Systemwide Traffic and Gross Toll Revenue Trends
Pennsylvania Turnpike System
(in thousands)

	Transactions						Gross Toll Revenue					
Fiscal Year (1)	Cars	Percent Change Over Prior Year	Trucks	Percent Change Over Prior Year	Total	Percent Change Over Prior Year	Cars	Percent Change Over Prior Year	Trucks	Percent Change Over Prior Year	Total	Percent Change Over Prior Year
1994-95	114,033	6.9	15,620	9.5	129,653	7.2	$165,850	4.9	$131,749	7.2	$297,599	5.9
1995-96	121,911	6.9	16,719	7.0	138,630	6.9	172,339	3.9	136,269	3.4	308,608	3.7
1996-97	126,654	3.9	17,479	4.5	144,133	4.0	179,303	4.0	140,837	3.4	320,140	3.7
1997-98	132,472	4.6	18,627	6.6	151,099	4.8	186,290	3.9	149,036	5.8	335,326	4.7
1998-99	136,399	3.0	19,833	6.5	156,232	3.4	191,804	3.0	158,761	6.5	350,565	4.5
1999-00	138,762	1.7	21,341	7.6	160,103	2.5	195,301	1.8	172,035	8.4	367,336	4.8
2000-01	141,033	1.6	21,278	(0.3)	162,311	1.4	193,563	(0.9)	172,337	0.2	365,900	(0.4)
2001-02	150,496	6.7	22,298	4.8	172,794	6.5	212,650	9.9	163,101	(5.4)	375,751	2.7
2002-03	156,220	3.8	23,179	4.0	179,399	3.8	219,201	3.1	168,021	3.0	387,222	3.1
2003-04	163,612	4.7	24,407	5.3	188,019	4.8	228,515	4.2	180,229	7.3	408,744	5.6
2004-05	163,316	(0.2)	25,109	2.9	188,425	0.2	309,032	35.2	236,126	31.0	545,158	33.4
2005-06	160,590	(1.7)	25,311	0.8	185,901	(1.3)	321,268	4.0	267,369	13.2	588,637	8.0
2006-07	160,107	(0.3)	25,316	0.0	185,423	(0.3)	322,781	0.5	269,861	0.9	592,642	0.7
2007-08	164,097	2.5	25,455	0.5	189,552	2.2	327,761	1.5	271,165	0.5	598,926	1.1
2008-09	162,638	(0.9)	23,583	(7.4)	186,220	(1.8)	356,345	8.7	259,259	(4.4)	615,605	2.8
2009-10	163,599	0.6	22,933	(2.8)	186,531	0.2	415,981	16.7	302,057	16.5	718,038	16.6
2010-11	165,231	1.0	23,812	3.8	189,043	1.3	435,752	4.8	328,105	8.6	763,856	6.4
2011-12	164,955	(0.2)	24,125	1.3	189,080	0.0	455,133	4.4	342,646	4.4	797,779	4.4
2012-13	163,690	(0.8)	24,207	0.3	187,897	(0.6)	471,514	3.6	350,226	2.2	821,740	3.0
2013-14	163,788	0.1	24,891	2.8	188,679	0.4	497,671	5.5	368,395	5.2	866,066	5.4
2014-15	166,192	1.5	26,144	5.0	192,336	1.9	533,054	7.1	401,197	8.9	934,251	7.9
2015-16 (2)	171,569	3.2	27,319	4.5	198,887	3.4	588,295	10.4	443,325	10.5	1,031,620	10.4
2016-17 (3,4)	172,799	0.7	27,703	1.4	200,501	0.8	638,787	8.6	476,188	7.4	1,114,975	8.1
2017-18 (5)	172,512	(0.2)	28,650	3.4	201,162	0.3	678,741	6.3	524,418	10.1	1,203,158	7.9
2018-19 (6,7)	173,429	0.5	29,625	3.4	203,054	0.9	740,578	9.1	594,808	13.4	1,335,385	11.0

Average Annual Percent Change

	Transactions			Gross Toll Revenue		
Fiscal Year	Cars	Trucks	Total	Cars	Trucks	Total
FY 1998-99 - FY 2008-09	1.8	1.7	1.8	6.4	5.0	5.8
FY 2008-09 - FY 2018-19	0.6	2.3	0.9	7.6	8.7	8.1
FY 1994-95 - FY 2018-19	1.8	2.7	1.9	6.4	6.5	6.5

(1) Fiscal year beginning June 1.
(2) The Delaware River Bridge toll plaza was converted from part of the Ticket System to a one-way barrier AET facility in January 2016.
(3) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(4) AET conversion was implemented on Turnpike I-376 Beaver Valley Expressway in May 2017.
(5) AET conversion and vehicle classification changes were implemented on the Northeast Extension Barrier Facilities in April 2018.
(6) Toll by Plate surcharge for I-376 Beaver Valley Expressway was increased in October 2019.
(7) AET conversion was implemented at Gateway Toll Plaza and Turnpike 66 in October 2019.

Note: Refer to Table 1 for toll rate increase information.

Monthly Transactions and Gross Toll revenue Trends

Tables 3 through 12 present recent monthly transaction and gross toll revenue trends from FY 2016-17 through April 2020 for all PTC facilities. The information is provided for passenger cars, commercial vehicles, and total vehicles. For comparative purposes, subtotals are provided for June through April for each fiscal year. The facilities are summarized in the following order:

- Table 3 – the total Turnpike System (comprised of all the facilities listed below);
- Table 4 – the Ticket System (comprised of I-76/I-276 and I-476);
- Table 5 – the combined Barrier System (comprised of all facilities listed below);
- Table 6 – Turnpike 43 (Mon/Fayette Expressway) (MFE);
- Table 7 – Turnpike 66 (Amos K. Hutchinson Bypass) (AKH);
- Table 8 – Northeast Extension (I-476) barrier plazas;
- Table 9 – Turnpike I-376 (Beaver Valley Expressway) (BVE);
- Table 10 – Turnpike I-576 (Southern Beltway – Findlay Connector);
- Table 11 – Delaware River Bridge (DRB); and
- Table 12 – Gateway Toll Plaza.

The 2018 Investment Grade Study and 2019 Bring Down Letter both included the Gateway Toll Plaza with the Ticket System. With the conversion of the Gateway Toll Plaza to AET in October 2019, it is now reported as a stand-alone facility separate from the Ticket System. Gateway traffic and revenue data for previous years have been extracted from Ticket System data and included in Table 12, so year-to-year comparisons for both Table 4 and Table 12 are consistent.

As shown in Table 3, systemwide gross toll revenue increased by 7.9 percent in FY 2017-18 and 11.0 percent in FY 2018-19. Year-to-date (June 2019 through April 2020) toll revenue growth had declined by less than 0.1 percent compared to the same period in the prior year. Commercial vehicle toll revenue increased by 3.2 percent and passenger car toll revenue decreased by 2.7 percent from June 2019 through April 2020 compared to the same time period in the prior year. Annual toll revenue growth has exceeded annual transaction growth due to the annual toll increase adjustments. Year-to-date transactions decreased by 9.5 percent for passenger cars and 1.4 for commercial vehicles, resulting in an 8.3-percent decrease for total vehicles.

Table 3

Total Turnpike System - Monthly Transaction and Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

Month	Passenger Cars 2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	15,395	0.3	15,438	(0.5)	15,361	(1.1)	15,187
July	15,783	(1.7)	15,522	0.3	15,566	0.1	15,583
August	15,967	(0.1)	15,957	1.1	16,134	(0.4)	16,071
September	14,817	(0.6)	14,724	(1.5)	14,503	0.5	14,582
October	15,236	(0.1)	15,221	1.2	15,396	(0.0)	15,389
November	14,458	(1.0)	14,317	(0.5)	14,242	(0.3)	14,193
December	14,051	(2.2)	13,746	1.7	13,982	(0.5)	13,911
January	12,609	(0.5)	12,542	(0.3)	12,504	2.6	12,826
February	11,407	4.8	11,958	(0.2)	11,930	4.4	12,459
March	13,416	1.3	13,591	3.1	14,018	(37.5)	8,765
April	14,400	(1.0)	14,259	1.2	14,426	(71.8)	4,074
May	15,260	(0.2)	15,237	0.9	15,367		
Total Year	172,799	(0.2)	172,512	0.5	173,429		
Jun - Apr	157,539	(0.2)	157,276	0.5	158,062	(9.5)	143,040

Month	Commercial Vehicles 2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	2,550	1.0	2,575	0.9	2,596	(1.5)	2,557
July	2,419	(0.0)	2,419	6.3	2,573	3.7	2,668
August	2,616	1.7	2,662	3.5	2,755	(1.2)	2,722
September	2,442	(0.4)	2,431	(0.5)	2,418	5.0	2,539
October	2,429	4.9	2,547	7.3	2,732	1.4	2,770
November	2,236	3.9	2,323	3.0	2,391	0.5	2,403
December	2,153	(0.4)	2,146	2.5	2,198	3.3	2,271
January	2,014	8.0	2,175	4.3	2,268	3.7	2,353
February	1,815	12.0	2,034	1.9	2,073	5.2	2,182
March	2,216	3.5	2,295	3.4	2,372	(5.3)	2,245
April	2,268	5.2	2,387	6.8	2,549	(28.0)	1,836
May	2,542	4.5	2,657	1.6	2,698		
Total Year	27,703	3.4	28,650	3.4	29,625		
Jun - Apr	25,160	3.3	25,993	3.6	26,927	(1.4)	26,547

Month	Total Vehicles 2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	17,945	0.4	18,013	(0.3)	17,958	(1.2)	17,744
July	18,202	(1.4)	17,942	1.1	18,138	0.6	18,251
August	18,583	0.2	18,619	1.5	18,889	(0.5)	18,793
September	17,260	(0.6)	17,156	(1.4)	16,921	1.2	17,121
October	17,665	0.6	17,768	2.0	18,128	0.2	18,159
November	16,695	(0.3)	16,640	(0.0)	16,633	(0.2)	16,597
December	16,204	(1.9)	15,891	1.8	16,180	0.0	16,182
January	14,622	0.7	14,718	0.4	14,772	2.8	15,179
February	13,223	5.8	13,992	0.1	14,003	4.5	14,640
March	15,632	1.6	15,886	3.2	16,389	(32.8)	11,010
April	16,668	(0.1)	16,646	2.0	16,975	(65.2)	5,911
May	17,802	0.5	17,893	1.0	18,065		
Total Year	200,501	0.3	201,162	0.9	203,054		
Jun - Apr	182,699	0.3	183,269	0.9	184,989	(8.3)	169,587

Toll Revenue (in $1,000s)

Month	Passenger Cars 2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	$57,273	8.0	$61,877	6.5	$65,886	8.9	$71,743
July	62,975	4.4	65,722	5.3	69,178	9.8	75,990
August	60,179	7.4	64,611	9.2	70,545	9.6	77,351
September	54,770	3.4	56,620	6.6	60,348	8.0	65,184
October	55,018	5.1	57,806	6.6	61,611	9.7	67,615
November	52,436	5.1	55,122	7.3	59,156	8.3	64,068
December	50,563	3.5	52,345	9.6	57,377	10.8	63,565
January	44,374	5.3	46,741	9.0	50,969	11.5	56,826
February	38,957	14.4	44,576	11.8	49,844	11.1	55,386
March	48,033	11.9	53,737	14.3	61,426	(38.8)	37,574
April	55,683	2.7	57,201	11.8	63,940	(73.2)	17,157
May	58,526	6.6	62,381	12.7	70,298		
Total Year	$638,787	6.3	$678,741	9.1	$740,578		
Jun - Apr	$580,261	6.2	$616,359	8.7	$670,280	(2.7)	$652,460

Month	Commercial Vehicles 2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	$42,661	4.6	$44,643	11.5	$49,757	5.4	$52,463
July	40,876	2.6	41,947	17.0	49,069	10.8	54,375
August	43,337	6.6	46,210	13.3	52,369	5.9	55,447
September	40,984	3.4	42,371	11.7	47,311	8.5	51,328
October	39,895	11.8	44,599	17.0	52,185	6.0	55,318
November	37,100	10.4	40,944	15.0	47,087	2.5	48,255
December	36,880	5.7	39,000	11.9	43,630	8.3	47,235
January	36,597	15.4	42,222	14.3	48,261	8.1	52,171
February	32,933	21.9	40,130	12.4	45,096	8.9	49,120
March	40,619	12.3	45,627	13.4	51,729	(5.4)	48,928
April	40,540	13.6	46,057	14.6	52,793	(20.2)	42,127
May	43,767	15.8	50,666	9.6	55,522		
Total Year	$476,188	10.1	$524,418	13.4	$594,808		
Jun - Apr	$432,422	9.6	$473,752	13.8	$539,286	3.2	$556,766

Month	Total Vehicles 2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	$99,935	6.6	$106,521	8.6	$115,643	7.4	$124,206
July	103,851	3.7	107,669	9.8	118,247	10.2	130,365
August	103,516	7.1	110,821	10.9	122,914	8.0	132,798
September	95,754	3.4	98,991	8.8	107,658	8.2	116,512
October	94,912	7.9	102,405	11.1	113,795	8.0	122,933
November	89,536	7.3	96,066	10.6	106,243	5.7	112,323
December	87,443	4.5	91,344	10.6	101,007	9.7	110,800
January	80,971	9.9	88,964	11.5	99,230	9.8	108,997
February	71,890	17.8	84,707	12.1	94,940	10.1	104,507
March	88,653	12.1	99,364	13.9	113,155	(23.6)	86,502
April	96,223	7.3	103,259	13.0	116,733	(49.2)	59,283
May	102,293	10.5	113,047	11.3	125,820		
Total Year	$1,114,975	7.9	$1,203,158	11.0	$1,335,385		
Jun - Apr	$1,012,683	7.6	$1,090,111	11.0	$1,209,566	(0.0)	$1,209,226

NOTES:

(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.

(2) Leap year occurred in 2020, resulting in exaggerated traffic and toll revenue impacts in February 2020 compared to February 2019.

(3) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.

(4) In response to the COVID-19 pandemic, schools were closed state-wide on March 16, 2020 and stay at home orders for some counties began to take effect on March 23, 2020. A state-wide stay at home order was issued April 1, 2020.

(5) AET conversion was implemented on Turnpike I-376 Beaver Valley Expressway in May 2017.

(6) AET conversion and vehicle classification changes were implemented on the Northeast Extension Barrier facilities in April 2018.

(7) AET conversion and vehicle classification changes were implemented on the Turnpike I-576 Findlay Connector in June 2018.

(8) AET conversion was implemented on Turnpike 66 Amos K. Hutchinson Bypass and Gateway Toll Plaza in October 2019.

Table 4

Ticket System - Monthly Transaction and Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

Passenger Cars

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	11,681	0.1	11,695	(1.0)	11,580	(3.3)	11,195
July	11,813	(1.3)	11,654	(0.5)	11,596	(2.0)	11,365
August	12,006	0.1	12,015	0.0	12,019	(1.9)	11,786
September	11,186	(0.7)	11,110	(2.5)	10,836	(0.6)	10,768
October	11,551	(0.0)	11,547	(0.6)	11,483	(0.8)	11,387
November	11,016	(1.0)	10,905	(2.6)	10,625	(0.5)	10,574
December	10,749	(2.6)	10,464	(0.0)	10,463	(1.1)	10,347
January	9,816	(1.6)	9,655	(2.1)	9,453	1.8	9,623
February	9,030	1.3	9,152	(2.4)	8,931	4.8	9,358
March	10,344	(0.5)	10,288	1.8	10,475	(39.5)	6,334
April	10,971	(1.2)	10,836	(1.0)	10,728	(74.9)	2,692
May	11,557	(0.6)	11,485	(1.0)	11,371		
Total Year	131,721	(0.7)	130,805	(1.0)	129,559		
Jun - Apr	120,163	(0.7)	119,321	(0.9)	118,188	(10.8)	105,429

Commercial Vehicles

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	1,942	(0.2)	1,938	0.0	1,939	(2.7)	1,887
July	1,845	(1.5)	1,817	5.4	1,915	2.7	1,967
August	1,993	0.1	1,995	2.3	2,040	(1.7)	2,006
September	1,857	(1.9)	1,823	(1.8)	1,790	4.3	1,867
October	1,846	3.6	1,913	5.8	2,024	0.4	2,031
November	1,697	3.3	1,754	1.7	1,784	(0.8)	1,770
December	1,655	(1.0)	1,638	0.8	1,650	2.2	1,686
January	1,564	6.0	1,658	2.5	1,699	2.7	1,745
February	1,441	6.8	1,539	0.5	1,547	4.5	1,616
March	1,711	1.2	1,732	1.7	1,762	(6.5)	1,647
April	1,727	3.9	1,795	4.7	1,880	(29.3)	1,329
May	1,916	3.4	1,981	0.5	1,990		
Total Year	21,195	1.8	21,582	2.0	22,020		
Jun - Apr	19,278	1.7	19,601	2.2	20,030	(2.4)	19,550

Total Vehicles

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	13,623	0.1	13,633	(0.8)	13,519	(3.2)	13,082
July	13,658	(1.4)	13,471	0.3	13,512	(1.3)	13,332
August	13,999	0.1	14,009	0.4	14,059	(1.9)	13,792
September	13,044	(0.9)	12,933	(2.4)	12,626	0.1	12,635
October	13,397	0.5	13,459	0.4	13,506	(0.7)	13,418
November	12,713	(0.4)	12,659	(2.0)	12,409	(0.5)	12,343
December	12,404	(2.4)	12,102	0.1	12,113	(0.7)	12,033
January	11,381	(0.6)	11,313	(1.4)	11,152	1.9	11,368
February	10,472	2.1	10,691	(2.0)	10,478	4.7	10,974
March	12,054	(0.3)	12,020	1.8	12,237	(34.8)	7,981
April	12,698	(0.5)	12,631	(0.2)	12,608	(68.1)	4,021
May	13,474	(0.1)	13,465	(0.8)	13,361		
Total Year	152,915	(0.3)	152,387	(0.5)	151,579		
Jun - Apr	139,442	(0.4)	138,922	(0.5)	138,218	(9.6)	124,979

Toll Revenue (in $1,000s)

Passenger Cars

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	$48,540	9.0	$52,913	6.5	$56,349	7.6	$60,635
July	53,525	5.2	56,299	5.0	59,123	8.5	64,149
August	51,004	8.2	55,199	9.1	60,200	8.8	65,501
September	46,395	3.9	48,195	6.3	51,234	7.0	54,814
October	46,690	5.6	49,321	5.3	51,943	9.7	57,006
November	44,524	6.0	47,189	5.8	49,943	7.6	53,745
December	42,977	3.8	44,599	8.3	48,312	10.0	53,142
January	38,258	4.3	39,895	7.4	42,828	10.1	47,167
February	34,772	9.3	38,015	10.1	41,868	10.5	46,274
March	41,479	10.5	45,839	12.8	51,714	(40.2)	30,904
April	47,629	2.7	48,924	10.1	53,860	(75.2)	13,360
May	49,996	6.6	53,304	11.3	59,310		
Total Year	$545,788	6.2	$579,692	8.1	$626,685		
Jun - Apr	$495,793	6.2	$526,389	7.8	$567,374	(3.6)	$546,698

Commercial Vehicles

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	$37,574	4.6	$39,308	11.7	$43,898	5.1	$46,135
July	36,068	2.4	36,939	17.2	43,294	10.4	47,784
August	38,164	6.6	40,669	13.5	46,144	5.5	48,699
September	36,039	3.5	37,290	12.0	41,775	7.7	45,003
October	35,017	12.0	39,232	17.0	45,892	5.4	48,375
November	32,451	10.9	35,991	15.4	41,520	1.1	41,992
December	32,414	6.1	34,402	11.8	38,457	7.1	41,206
January	32,708	14.4	37,423	13.8	42,586	7.4	45,721
February	30,228	17.6	35,551	12.0	39,811	8.3	43,112
March	36,315	11.4	40,462	12.9	45,684	(6.7)	42,610
April	35,780	13.9	40,759	13.9	46,431	(21.4)	36,517
May	38,497	16.2	44,726	9.1	48,818		
Total Year	$421,255	9.9	$462,754	13.3	$524,309		
Jun - Apr	$382,758	9.2	$418,027	13.7	$475,491	2.5	$487,153

Total Vehicles

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	$86,113	7.1	$92,221	8.7	$100,247	6.5	$106,770
July	89,593	4.1	93,238	9.8	102,417	9.3	111,932
August	89,168	7.5	95,868	10.9	106,344	7.4	114,200
September	82,434	3.7	85,485	8.8	93,009	7.3	99,817
October	81,707	8.4	88,553	10.5	97,835	7.7	105,381
November	76,975	8.1	83,181	10.0	91,463	4.7	95,737
December	75,390	4.8	79,001	9.8	86,769	8.7	94,348
January	70,967	8.9	77,318	10.5	85,414	8.8	92,888
February	65,001	13.2	73,566	11.0	81,679	9.4	89,386
March	77,793	10.9	86,301	12.9	97,398	(24.5)	73,515
April	83,409	7.5	89,683	11.8	100,291	(50.3)	49,878
May	88,493	10.8	98,030	10.3	108,128		
Total Year	$967,044	7.8	$1,042,446	10.4	$1,150,994		
Jun - Apr	$878,551	7.5	$944,416	10.4	$1,042,866	(0.9)	$1,033,851

NOTES:
(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.
(2) Leap year occurred in 2020, resulting in exaggerated traffic and toll revenue impacts in February 2020 compared to February 2019.
(3) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(4) In response to the COVID-19 pandemic, schools were closed state-wide on March 16, 2020 and stay at home orders for some counties began to take effect on March 23, 2020. A state-wide stay at home order was issued April 1, 2020.

Table 5

Combined Barrier Facilities - Monthly Transaction and Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	3,714	0.8	3,743	1.0	3,782	5.5	3,992	609	4.5	636	3.3	657	1.9	670	4,322	1.3	4,379	1.4	4,439	5.0	4,661
July	3,970	(2.5)	3,869	2.6	3,970	6.3	4,218	574	4.9	602	9.2	657	6.7	702	4,544	(1.6)	4,471	3.5	4,627	6.3	4,920
August	3,961	(0.5)	3,942	4.4	4,115	4.1	4,286	624	7.0	667	7.1	715	0.1	716	4,585	0.5	4,610	4.8	4,830	3.5	5,002
September	3,631	(0.5)	3,614	1.5	3,667	4.0	3,814	585	4.1	609	3.2	628	6.9	672	4,216	0.2	4,223	1.7	4,295	4.4	4,486
October	3,685	(0.3)	3,674	6.5	3,913	2.3	4,001	583	8.8	635	11.6	709	4.3	739	4,268	0.9	4,309	7.3	4,621	2.6	4,740
November	3,443	(0.9)	3,412	6.0	3,618	0.1	3,620	539	5.5	569	6.8	607	4.3	634	3,982	(0.0)	3,981	6.1	4,225	0.7	4,253
December	3,302	(0.6)	3,282	7.2	3,519	1.3	3,564	498	1.9	508	7.9	548	6.7	585	3,800	(0.3)	3,790	7.3	4,068	2.0	4,149
January	2,792	3.4	2,887	5.7	3,051	5.0	3,203	450	15.1	517	10.0	569	6.8	608	3,242	5.0	3,404	6.3	3,620	5.3	3,811
February	2,377	18.0	2,806	6.9	2,999	3.4	3,101	374	32.3	495	6.4	526	7.5	566	2,751	20.0	3,301	6.8	3,525	4.0	3,666
March	3,072	7.5	3,303	7.3	3,543	(31.4)	2,431	505	11.3	562	8.5	610	(1.9)	598	3,577	8.1	3,865	7.4	4,153	(27.0)	3,030
April	3,428	(0.2)	3,423	8.0	3,698	(62.6)	1,382	541	9.3	592	13.1	669	(24.1)	508	3,970	1.1	4,015	8.8	4,367	(56.7)	1,890
May	3,703	1.3	3,752	6.5	3,996			626	8.0	676	4.7	708			4,329	2.3	4,428	6.2	4,704		
Total Year	41,078	1.5	41,707	5.2	43,870			6,508	8.6	7,068	7.6	7,605			47,586	2.5	48,775	5.5	51,475		
Jun - Apr	37,375	1.6	37,955	5.1	39,874	(5.7)	37,611	5,882	8.7	6,392	7.9	6,897	1.5	6,997	43,257	2.5	44,347	5.5	46,771	(4.6)	44,608

Toll Revenue (in $1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	$8,734	2.6	$8,964	6.4	$9,537	16.5	$11,108	$5,087	4.9	$5,335	9.8	$5,859	8.0	$6,328	$13,821	3.5	$14,299	7.7	$15,396	13.2	$17,436
July	9,451	(0.3)	9,422	6.7	10,055	17.8	11,841	4,807	4.2	5,009	15.3	5,775	14.1	6,591	14,258	1.2	14,431	9.7	15,830	16.4	18,433
August	9,175	2.6	9,413	9.9	10,344	14.6	11,850	5,172	7.1	5,541	12.4	6,225	8.4	6,748	14,348	4.2	14,953	10.8	16,570	12.2	18,598
September	8,375	0.6	8,425	8.2	9,114	13.8	10,370	4,945	2.8	5,082	8.9	5,535	14.3	6,326	13,320	1.4	13,507	8.5	14,649	14.0	16,696
October	8,327	1.9	8,485	13.9	9,668	9.7	10,609	4,878	10.0	5,368	17.2	6,293	10.3	6,943	13,205	4.9	13,853	15.2	15,961	10.0	17,552
November	7,912	0.3	7,933	16.1	9,214	12.0	10,323	4,649	6.5	4,952	12.4	5,567	12.5	6,263	12,562	2.6	12,885	14.7	14,780	12.2	16,586
December	7,586	2.1	7,746	17.0	9,065	15.0	10,423	4,467	2.9	4,597	12.5	5,173	16.6	6,029	12,052	2.4	12,343	15.4	14,238	15.6	16,452
January	6,116	12.0	6,847	18.9	8,141	18.6	9,659	3,888	23.4	4,799	18.2	5,675	13.7	6,450	10,004	16.4	11,646	18.6	13,816	16.6	16,109
February	4,184	56.8	6,561	21.6	7,976	14.3	9,112	2,704	69.3	4,580	15.4	5,285	13.7	6,009	6,889	61.7	11,141	19.0	13,261	14.0	15,121
March	6,554	20.5	7,898	23.0	9,712	(31.3)	6,670	4,305	20.0	5,165	17.0	6,045	4.5	6,317	10,859	20.3	13,063	20.6	15,757	(17.6)	12,987
April	8,054	2.8	8,277	21.8	10,080	(62.3)	3,796	4,760	11.3	5,298	20.1	6,362	(11.8)	5,610	12,814	5.9	13,575	21.1	16,443	(42.8)	9,406
May	8,531	6.4	9,078	21.0	10,988			5,270	12.7	5,940	12.9	6,704			13,800	8.8	15,017	17.8	17,691		
Total Year	$92,999	6.5	$99,048	15.0	$113,893			$54,933	12.3	$61,664	14.3	$70,498			$147,932	8.6	$160,712	14.7	$184,392		
Jun - Apr	$84,468	6.5	$89,971	14.4	$102,906	2.8	$105,762	$49,664	12.2	$55,724	14.5	$63,795	9.1	$69,613	$134,132	8.6	$145,695	14.4	$166,700	5.2	$175,375

NOTES:

(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.

(2) Leap year occurred in 2020, resulting in exaggerated traffic and toll revenue impacts in February 2020 compared to February 2019.

(3) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.

(4) In response to the COVID-19 pandemic, schools were closed state-wide on March 16, 2020 and stay at home orders for some counties began to take effect on March 23, 2020. A state-wide stay at home order was issued April 1, 2020.

(5) AET Conversions at Beaver Valley Expressway, NE Extension Barrier Plazas, Findlay Connector, Amos K Hutchinson Bypass, and Gateway Toll Plaza in May 2017, April 2018, June 2018, October 2019, and October 2019 respectively.

Table 6

Turnpike 43 - Mon/Fayette Expressway - Monthly Transaction and Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

Month	Passenger Cars 2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	1,083	(1.0)	1,072	0.7	1,079	(1.6)	1,061
July	1,112	(3.9)	1,068	4.7	1,118	(1.6)	1,099
August	1,141	(2.2)	1,116	3.0	1,149	(2.9)	1,116
September	1,107	(2.8)	1,076	0.4	1,080	(1.2)	1,067
October	1,134	(1.6)	1,116	4.1	1,162	(3.5)	1,121
November	1,013	(3.2)	980	4.8	1,027	(5.6)	970
December	984	(3.3)	952	1.6	967	(2.0)	948
January	902	(2.8)	876	0.4	880	1.3	891
February	892	(2.4)	870	1.5	884	(1.7)	868
March	1,028	(3.2)	995	2.0	1,015	(30.4)	706
April	1,029	(0.3)	1,026	2.7	1,053	(57.2)	451
May	1,085	1.2	1,098	1.3	1,111		
Total Year	12,508	(2.1)	12,244	2.3	12,524		
Jun - Apr	11,423	(2.4)	11,146	2.4	11,413	(9.8)	10,299

Month	Commercial Vehicles 2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	95	2.4	97	(0.1)	97	0.0	97
July	86	8.9	94	6.2	99	9.7	109
August	95	12.8	107	(5.6)	101	0.1	102
September	89	9.1	97	(2.5)	95	4.0	99
October	89	15.6	103	5.6	108	4.0	113
November	78	9.5	86	5.9	91	(4.3)	87
December	73	(1.8)	71	4.6	75	(4.8)	71
January	63	12.2	71	10.1	78	(3.8)	75
February	65	9.6	71	0.9	72	(6.5)	67
March	78	(0.4)	78	11.4	87	(18.7)	71
April	82	6.9	88	13.1	99	(37.5)	62
May	98	8.1	106	(2.0)	104		
Total Year	992	7.8	1,070	3.5	1,107		
Jun - Apr	894	7.8	963	4.1	1,003	(5.0)	952

Month	Total Vehicles 2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	1,178	(0.8)	1,169	0.6	1,176	(1.5)	1,158
July	1,198	(3.0)	1,161	4.8	1,217	(0.7)	1,208
August	1,236	(1.0)	1,223	2.3	1,251	(2.7)	1,217
September	1,196	(1.9)	1,173	0.2	1,175	(0.8)	1,166
October	1,223	(0.3)	1,219	4.2	1,270	(2.9)	1,233
November	1,091	(2.3)	1,066	4.9	1,118	(5.5)	1,057
December	1,057	(3.2)	1,023	1.8	1,042	(2.2)	1,019
January	965	(1.9)	947	1.1	957	0.9	966
February	957	(1.6)	942	1.5	956	(2.1)	936
March	1,106	(3.0)	1,073	2.7	1,102	(29.5)	777
April	1,111	0.2	1,113	3.5	1,152	(55.5)	513
May	1,183	1.7	1,204	1.0	1,215		
Total Year	13,500	(1.4)	13,313	2.4	13,631		
Jun - Apr	12,317	(1.7)	12,109	2.5	12,416	(9.4)	11,251

Toll Revenue (in $1,000s)

Month	Passenger Cars 2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	$1,597	3.9	$1,659	6.8	$1,772	7.5	$1,904
July	1,621	3.1	1,671	12.4	1,877	6.5	2,000
August	1,678	2.6	1,722	10.6	1,904	3.7	1,974
September	1,606	2.2	1,642	7.8	1,769	7.4	1,901
October	1,654	3.5	1,711	10.9	1,898	4.5	1,983
November	1,443	3.7	1,496	12.6	1,684	0.9	1,700
December	1,419	1.9	1,446	12.4	1,625	3.4	1,680
January	1,348	3.8	1,399	10.2	1,542	9.7	1,692
February	1,348	4.1	1,403	10.4	1,548	5.9	1,639
March	1,568	2.2	1,602	11.9	1,792	(26.1)	1,324
April	1,568	6.6	1,672	11.4	1,862	(53.1)	873
May	1,666	7.9	1,798	10.4	1,986		
Total Year	$18,516	3.8	$19,222	10.6	$21,261		
Jun - Apr	$16,850	3.4	$17,423	10.6	$19,274	(3.1)	$18,670

Month	Commercial Vehicles 2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	$380	12.2	$426	8.5	$462	8.3	$500
July	346	15.9	400	17.8	471	18.0	556
August	380	20.0	457	4.6	478	8.9	520
September	364	14.9	418	6.9	447	9.8	491
October	363	20.5	437	16.3	508	9.3	556
November	321	16.1	373	16.0	432	3.3	446
December	301	5.0	316	18.3	374	0.8	377
January	277	19.6	331	22.1	404	5.7	427
February	289	18.5	343	10.4	378	2.8	389
March	351	8.2	380	21.5	462	(14.3)	396
April	362	16.3	421	22.1	513	(29.3)	363
May	428	16.6	499	8.7	543		
Total Year	$4,161	15.4	$4,800	14.0	$5,472		
Jun - Apr	$3,732	15.2	$4,300	14.6	$4,929	1.8	$5,020

Month	Total Vehicles 2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	$1,976	5.5	$2,085	7.1	$2,234	7.6	$2,404
July	1,966	5.3	2,071	13.4	2,349	8.8	2,556
August	2,058	5.9	2,179	9.3	2,382	4.7	2,494
September	1,970	4.5	2,060	7.6	2,216	7.9	2,392
October	2,017	6.5	2,148	12.0	2,406	5.5	2,538
November	1,764	5.9	1,869	13.3	2,116	1.4	2,147
December	1,719	2.5	1,762	13.5	1,999	2.9	2,056
January	1,624	6.5	1,730	12.5	1,946	8.9	2,119
February	1,637	6.6	1,746	10.4	1,926	5.3	2,028
March	1,919	3.3	1,982	13.7	2,254	(23.7)	1,720
April	1,930	8.4	2,093	13.5	2,376	(48.0)	1,236
May	2,094	9.7	2,298	10.1	2,529		
Total Year	$22,677	5.9	$24,021	11.3	$26,732		
Jun - Apr	$20,582	5.5	$21,724	11.4	$24,204	(2.1)	$23,690

NOTES:

(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.

(2) Leap year occurred in 2020, resulting in exaggerated traffic and toll revenue impacts in February 2020 compared to February 2019.

(3) In response to the COVID-19 pandemic, schools were closed state-wide on March 16, 2020 and stay at home orders for some counties began to take effect on March 23, 2020. A state-wide stay at home order was issued April 1, 2020.

Table 7

Turnpike 66 - Amos K. Hutchinson Bypass - Monthly Transaction and Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

Month	Passenger Cars 2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20	Commercial Vehicles 2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20	Total Vehicles 2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	563	0.7	567	(1.9)	556	(2.7)	541	93	7.4	100	1.0	101	(6.1)	95	656	1.6	667	(1.5)	657	(3.2)	636
July	560	(1.3)	553	1.1	559	(0.7)	555	88	7.1	94	7.2	101	(0.9)	100	648	(0.2)	647	2.0	660	(0.7)	655
August	572	1.0	578	0.8	583	(1.5)	574	96	8.1	104	3.6	108	(3.8)	104	669	2.0	682	1.2	691	(1.8)	678
September	560	(0.4)	558	(0.5)	555	(3.2)	538	94	0.9	95	(2.5)	92	3.0	95	654	(0.2)	653	(0.8)	648	(2.3)	633
October	577	(0.4)	575	1.0	580	0.1	581	92	5.9	98	8.1	105	(0.7)	105	669	0.5	672	2.0	686	(0.0)	686
November	542	(0.9)	537	(1.2)	531	(3.3)	513	80	5.4	84	2.4	86	(0.6)	85	621	(0.1)	621	(0.7)	617	(2.9)	599
December	540	(2.1)	529	0.7	533	(3.1)	517	70	5.6	74	7.8	80	(3.0)	77	610	(1.2)	603	1.6	612	(3.1)	594
January	487	(1.0)	482	(1.4)	475	2.3	486	69	12.1	77	5.7	81	2.0	83	555	0.6	558	(0.4)	556	2.2	569
February	467	(1.4)	460	0.1	461	1.3	467	67	6.7	71	5.6	75	1.0	76	533	(0.4)	531	0.8	536	1.3	542
March	537	(0.8)	533	(1.2)	527	(26.5)	387	82	1.9	84	(3.3)	81	(4.0)	78	620	(0.5)	617	(1.5)	608	(23.5)	465
April	548	(2.1)	536	0.3	538	(49.6)	271	88	2.1	90	3.8	93	(26.4)	69	636	(1.5)	626	0.8	631	(46.1)	340
May	577	0.3	579	(1.6)	570			99	2.8	101	(2.4)	99			676	0.7	680	(1.7)	669		
Total Year	6,530	(0.7)	6,486	(0.3)	6,466			1,016	5.3	1,071	2.9	1,102			7,546	0.1	7,556	0.2	7,568		
Jun - Apr	5,953	(0.8)	5,907	(0.2)	5,897	(7.9)	5,430	918	5.6	969	3.5	1,003	(3.7)	965	6,870	0.1	6,876	0.3	6,900	(7.3)	6,396

Toll Revenue (in $1,000s)

Month	Passenger Cars 2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20	Commercial Vehicles 2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20	Total Vehicles 2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	$889	7.0	$951	4.6	$995	4.8	$1,043	$400	13.1	$452	11.4	$504	(2.1)	$493	$1,289	8.9	$1,403	6.8	$1,499	2.5	$1,536
July	894	4.8	938	7.1	1,004	7.6	1,080	384	11.0	426	15.9	494	2.9	508	1,278	6.7	1,364	9.8	1,498	6.1	1,588
August	902	6.9	964	7.4	1,036	6.6	1,104	429	10.1	473	9.6	518	2.5	531	1,331	7.9	1,437	8.2	1,554	5.2	1,636
September	883	5.4	931	6.4	991	3.8	1,029	419	3.5	434	3.1	447	7.4	480	1,302	4.8	1,364	5.4	1,438	4.9	1,509
October	912	5.2	960	6.5	1,023	1.3	1,036	405	9.8	445	16.4	518	(3.7)	499	1,318	6.7	1,405	9.7	1,541	(0.3)	1,536
November	847	5.3	892	4.8	934	12.1	1,047	341	14.1	389	6.4	414	6.9	443	1,188	7.9	1,281	5.3	1,349	10.5	1,490
December	845	4.1	879	7.0	941	7.1	1,008	304	12.3	341	15.0	392	0.9	396	1,149	6.2	1,220	9.3	1,334	5.3	1,404
January	787	5.3	829	7.1	888	8.5	963	317	17.6	373	12.6	420	1.1	425	1,104	8.9	1,202	8.8	1,308	6.1	1,388
February	767	4.9	804	8.3	871	3.5	901	314	12.7	354	10.9	392	(2.9)	381	1,081	7.2	1,158	9.1	1,264	1.5	1,283
March	884	5.8	935	7.4	1,004	(30.5)	698	389	6.5	414	3.5	429	(12.6)	375	1,273	6.1	1,350	6.2	1,433	(25.1)	1,073
April	913	3.6	946	8.4	1,026	(49.8)	515	407	9.5	446	8.9	485	(28.9)	345	1,320	5.4	1,392	8.6	1,511	(43.1)	860
May	962	6.4	1,024	6.5	1,090			447	10.4	493	3.9	513			1,409	7.7	1,518	5.6	1,603		
Total Year	$10,486	5.4	$11,054	6.8	$11,804			$4,556	10.6	$5,041	9.7	$5,528			$15,042	7.0	$16,095	7.7	$17,331		
Jun - Apr	$9,523	5.3	$10,029	6.8	$10,713	(2.7)	$10,425	$4,109	10.7	$4,547	10.3	$5,015	(2.7)	$4,877	$13,633	6.9	$14,577	7.9	$15,728	(2.7)	$15,302

NOTES:

(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.

(2) Leap year occurred in 2020, resulting in exaggerated traffic and toll revenue impacts in February 2020 compared to February 2019.

(3) In response to the COVID-19 pandemic, schools were closed state-wide on March 16, 2020 and stay at home orders for some counties began to take effect on March 23, 2020. A state-wide stay at home order was issued April 1, 2020.

(4) AET conversion occurred in October 2019.

Table 8

Northeast Extension Barrier Plazas - Monthly Transaction and Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

Passenger Cars

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	417	0.7	420	(0.7)	417	10.7	462
July	519	(4.8)	494	(1.2)	488	14.7	560
August	502	(4.2)	481	10.3	530	9.3	580
September	396	(1.6)	390	(0.1)	389	8.7	423
October	398	(4.6)	380	4.4	397	10.4	438
November	376	(3.3)	364	1.0	367	3.6	381
December	329	(1.6)	323	2.3	331	2.9	340
January	277	(6.9)	258	(0.2)	257	9.6	282
February	267	(4.0)	256	2.3	262	5.9	277
March	297	2.9	305	4.0	318	(34.5)	208
April	376	(10.2)	338	8.3	366	(76.9)	85
May	454	(11.9)	400	5.1	420		
Total Year	4,608	(4.3)	4,409	3.0	4,542		
Jun - Apr	4,154	(3.5)	4,009	2.8	4,122	(2.1)	4,035

Commercial Vehicles

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	101	3.3	104	3.5	108	5.4	113
July	100	0.9	101	8.6	109	12.2	123
August	106	0.8	107	13.0	121	3.8	126
September	97	(1.4)	96	4.8	100	15.2	116
October	93	3.8	97	14.8	111	7.0	119
November	89	1.3	91	6.0	96	3.8	100
December	83	(0.0)	83	4.9	87	8.5	94
January	81	7.9	88	3.5	91	8.5	99
February	77	4.8	80	2.0	82	10.4	90
March	87	1.5	89	6.9	95	3.0	98
April	90	1.3	91	13.4	103	(18.9)	83
May	113	(5.3)	107	6.8	114		
Total Year	1,117	1.4	1,132	7.5	1,216		
Jun - Apr	1,004	2.1	1,025	7.6	1,102	5.2	1,160

Total Vehicles

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	518	1.2	524	0.1	525	9.6	575
July	619	(3.8)	595	0.5	598	14.3	683
August	608	(3.4)	588	10.8	651	8.3	705
September	493	(1.6)	486	0.9	490	10.0	539
October	491	(3.0)	476	6.5	507	9.7	556
November	466	(2.4)	454	2.0	463	3.6	480
December	411	(1.3)	406	2.8	417	4.0	434
January	358	(3.5)	345	0.8	348	9.3	381
February	344	(2.0)	337	2.2	344	6.9	368
March	384	2.6	394	4.6	412	(25.9)	306
April	466	(8.0)	429	9.4	469	(64.1)	168
May	567	(10.6)	507	5.4	534		
Total Year	5,724	(3.2)	5,540	3.9	5,759		
Jun - Apr	5,158	(2.4)	5,034	3.8	5,225	(0.6)	5,195

Toll Revenue (in $1,000s)

Passenger Cars

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	$392	5.5	$413	9.4	$452	17.9	$533
July	494	1.2	500	4.7	524	27.8	669
August	477	0.5	479	21.7	583	18.8	693
September	370	3.8	384	13.4	435	15.0	500
October	351	6.0	371	14.1	424	22.4	519
November	366	(3.7)	353	11.1	392	12.2	440
December	287	8.8	312	9.4	342	14.1	390
January	276	(9.8)	249	21.1	302	21.2	366
February	260	(4.7)	248	23.5	306	14.0	349
March	290	2.7	297	25.3	373	(31.3)	256
April	374	(10.0)	336	28.3	432	(72.6)	118
May	452	(6.6)	422	16.1	490		
Total Year	$4,388	(0.5)	$4,366	15.8	$5,054		
Jun - Apr	$3,936	0.2	$3,943	15.7	$4,563	5.9	$4,832

Commercial Vehicles

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	$477	6.3	$506	19.7	$607	11.1	$674
July	462	4.8	484	22.9	595	20.5	717
August	495	4.1	516	29.2	666	12.4	749
September	457	1.1	462	22.3	566	22.9	695
October	430	10.6	476	33.7	636	14.9	731
November	422	7.5	454	26.3	574	10.5	634
December	390	6.9	417	25.6	524	15.1	603
January	410	9.8	450	28.3	578	15.5	667
February	387	7.0	414	26.9	525	15.9	609
March	447	2.2	457	34.0	612	6.6	652
April	449	4.3	468	38.7	649	(9.4)	588
May	554	11.9	620	12.3	696		
Total Year	$5,381	6.4	$5,724	26.2	$7,227		
Jun - Apr	$4,827	5.8	$5,105	27.9	$6,531	12.1	$7,318

Total Vehicles

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	$868	5.9	$920	15.1	$1,058	14.0	$1,207
July	956	3.0	984	13.7	1,119	23.9	1,386
August	972	2.4	995	25.6	1,250	15.4	1,442
September	827	2.3	846	18.3	1,001	19.5	1,195
October	781	8.5	847	25.1	1,060	17.9	1,250
November	789	2.3	807	19.7	965	11.2	1,073
December	677	7.7	729	18.7	866	14.7	993
January	686	1.9	699	25.7	879	17.5	1,033
February	647	2.3	661	25.7	831	15.2	958
March	736	2.4	754	30.6	984	(7.8)	908
April	823	(2.2)	805	34.3	1,081	(34.7)	706
May	1,006	3.6	1,042	13.8	1,186		
Total Year	$9,769	3.3	$10,090	21.7	$12,281		
Jun - Apr	$8,762	3.3	$9,048	22.6	$11,094	9.5	$12,151

NOTES:
(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.
(2) Leap year occurred in 2020, resulting in exaggerated traffic and toll revenue impacts in February 2020 compared to February 2019.
(3) In response to the COVID-19 pandemic, schools were closed state-wide on March 16, 2020 and stay at home orders for some counties began to take effect on March 23, 2020. A state-wide stay at home order was issued April 1, 2020.
(4) AET conversion and vehicle classification changes were implemented in April 2018.

Table 9

Turnpike I-376 - Beaver Valley Expressway - Monthly Transaction and Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	562	5.4	592	4.8	621	3.7	644	111	12.9	126	1.4	127	(3.9)	122	673	6.6	718	4.2	748	2.4	766
July	588	1.0	593	8.4	643	2.8	661	104	10.1	114	12.8	129	(0.7)	128	691	2.3	707	9.1	771	2.2	788
August	579	4.2	604	12.1	677	(0.2)	675	113	12.1	127	11.5	142	(5.2)	134	693	5.5	730	12.0	818	(1.1)	809
September	550	6.0	583	6.2	619	2.0	632	104	13.5	118	2.7	122	2.6	125	654	7.2	702	5.6	741	2.1	756
October	553	4.3	577	13.7	657	2.0	670	105	15.1	120	16.0	140	(5.8)	132	658	6.0	698	14.1	796	0.6	801
November	509	6.2	541	9.2	591	0.5	593	95	10.4	105	6.6	112	(3.1)	108	605	6.9	646	8.8	703	(0.1)	702
December	497	7.4	534	9.1	582	0.4	585	80	13.5	91	8.2	99	(4.8)	94	577	8.3	625	9.0	681	(0.3)	678
January	450	6.3	478	8.5	519	5.1	545	80	12.9	90	11.5	101	(3.5)	97	530	7.3	569	9.0	620	3.7	642
February	432	7.7	465	9.3	508	2.0	518	78	16.4	91	4.2	95	(1.7)	93	510	9.0	556	8.4	603	1.4	611
March	499	10.6	552	8.1	596	(32.5)	402	92	15.3	106	2.9	109	(12.2)	96	591	11.4	658	7.2	705	(29.4)	498
April	511	11.2	568	7.9	613	(62.7)	229	93	23.0	115	8.8	125	(32.9)	84	604	13.0	683	8.0	738	(57.7)	312
May	556	12.2	623	5.9	660			108	21.4	132	0.7	133			664	13.7	755	5.0	793		
Total Year	6,286	6.8	6,711	8.6	7,286			1,164	14.7	1,335	7.2	1,431			7,450	8.0	8,046	8.3	8,717		
Jun - Apr	5,730	6.2	6,088	8.8	6,625	(7.1)	6,154	1,055	14.0	1,203	7.9	1,298	(6.6)	1,212	6,786	7.4	7,291	8.7	7,924	(7.0)	7,366

Toll Revenue (in $1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	$764	0.9	$771	9.8	$847	12.5	$953	$381	(3.1)	$369	1.6	$375	3.0	$386	$1,144	(0.4)	$1,140	7.2	$1,221	9.6	$1,339
July	810	(3.7)	780	12.2	875	15.1	1,007	347	(4.4)	332	12.3	373	7.5	401	1,157	(3.9)	1,112	12.3	1,248	12.8	1,408
August	780	0.9	787	18.7	935	7.3	1,003	381	(4.1)	366	13.5	415	0.4	417	1,162	(0.7)	1,153	17.1	1,350	5.2	1,420
September	738	1.4	748	15.0	861	11.1	957	352	(0.7)	349	2.3	357	10.4	394	1,090	0.7	1,098	11.0	1,218	10.9	1,351
October	744	0.6	749	19.2	892	16.8	1,042	348	(1.9)	341	20.1	410	2.7	421	1,092	(0.2)	1,090	19.5	1,302	12.3	1,463
November	677	2.7	695	15.5	803	34.9	1,083	317	(4.0)	304	7.1	326	15.5	376	994	0.5	999	13.0	1,129	29.3	1,459
December	663	3.0	683	14.8	784	34.7	1,057	270	(0.7)	268	6.8	286	14.4	327	933	1.9	951	12.6	1,070	29.3	1,384
January	619	3.7	642	18.9	763	29.3	987	286	(6.7)	266	15.4	307	10.5	340	905	0.4	908	17.9	1,071	23.9	1,327
February	604	3.1	623	21.2	755	21.3	916	279	(0.2)	278	8.6	302	7.8	326	883	2.1	901	17.3	1,057	17.4	1,242
March	700	6.8	748	20.4	900	(29.2)	637	331	(2.1)	324	10.1	356	(8.3)	327	1,031	3.9	1,071	17.3	1,257	(23.3)	964
April	717	9.0	781	17.8	920	(56.9)	397	332	4.0	345	16.9	403	(25.7)	299	1,048	7.4	1,126	17.5	1,323	(47.4)	696
May	687	21.9	837	17.5	984			321	21.1	389	9.7	426			1,008	21.7	1,226	15.0	1,411		
Total Year	$8,504	4.0	$8,845	16.7	$10,321			$3,943	(0.3)	$3,931	10.3	$4,337			$12,447	2.6	$12,776	14.7	$14,657		
Jun - Apr	$7,817	2.4	$8,007	16.6	$9,336	7.5	$10,039	$3,622	(2.2)	$3,542	10.4	$3,910	2.6	$4,013	$11,439	1.0	$11,550	14.7	$13,247	6.1	$14,053

NOTES:

(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.

(2) Leap year occurred in 2020, resulting in exaggerated traffic and toll revenue impacts in February 2020 compared to February 2019.

(3) In response to the COVID-19 pandemic, schools were closed state-wide on March 16, 2020 and stay at home orders for some counties began to take effect on March 23, 2020. A state-wide stay at home order was issued April 1, 2020.

(4) AET conversion occurred in May 2017.

Table 10

Turnpike I-576 - Southern Beltway - Findlay Connector - Monthly Transaction and Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

Passenger Cars

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	151	4.1	157	(11.0)	140	0.5	140
July	162	(2.7)	158	(11.2)	140	5.8	148
August	168	2.6	172	(19.3)	139	7.4	149
September	151	2.1	154	(19.3)	124	10.8	137
October	154	6.5	164	(15.5)	139	8.6	151
November	147	0.2	148	(13.4)	128	4.0	133
December	142	(1.3)	140	(11.5)	124	6.2	132
January	131	(0.2)	131	(9.7)	118	5.9	125
February	124	(2.3)	122	(5.8)	115	3.3	118
March	146	(2.3)	143	(8.2)	131	(25.2)	98
April	143	(2.1)	140	(8.0)	129	(56.1)	57
May	157	(4.0)	151	(6.7)	141		
Total Year	1,777	0.1	1,779	(11.9)	1,567		
Jun - Apr	1,620	0.5	1,628	(12.4)	1,426	(2.6)	1,389

Commercial Vehicles

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	19	(2.3)	19	16.5	22	54.2	33
July	18	11.0	20	8.8	22	23.0	27
August	20	15.2	23	28.8	30	(2.3)	29
September	18	23.0	22	37.1	31	(3.2)	30
October	24	(8.0)	22	17.2	25	38.7	35
November	19	0.7	19	21.8	23	76.8	41
December	19	(13.6)	17	31.7	22	70.5	37
January	20	(18.6)	16	38.6	22	75.4	39
February	15	8.1	16	37.2	22	67.1	37
March	18	11.2	20	82.3	36	(3.8)	35
April	18	15.1	20	87.3	38	(43.0)	22
May	19	33.8	25	45.4	36		
Total Year	227	5.7	240	37.9	330		
Jun - Apr	208	3.2	215	37.0	294	24.5	366

Total Vehicles

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	170	3.4	175	(8.1)	161	7.7	174
July	180	(1.3)	178	(8.9)	162	8.1	175
August	188	4.0	196	(13.6)	169	5.7	179
September	169	4.3	176	(12.2)	155	8.0	167
October	178	4.6	186	(11.7)	164	13.2	186
November	166	0.2	167	(9.4)	151	15.3	174
December	161	(2.7)	157	(6.9)	146	15.8	169
January	151	(2.6)	147	(4.4)	141	17.0	165
February	139	(1.2)	138	(0.7)	137	13.7	155
March	164	(0.8)	163	2.8	167	(20.6)	133
April	161	(0.2)	161	4.2	168	(53.1)	79
May	176	(0.0)	176	0.7	177		
Total Year	2,004	0.8	2,019	(6.0)	1,898		
Jun - Apr	1,828	0.8	1,843	(6.6)	1,721	2.0	1,755

Toll Revenue (in $1,000s)

Passenger Cars

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	$108	1.9	$110	42.4	$157	11.8	$175
July	118	(2.8)	114	41.3	162	16.3	188
August	117	4.6	123	36.9	168	9.5	184
September	106	1.9	108	36.4	147	23.0	181
October	108	8.1	116	40.6	164	18.1	193
November	103	0.5	103	43.8	148	11.9	166
December	102	(0.8)	101	43.3	145	18.1	171
January	92	(1.8)	91	62.4	147	20.1	177
February	87	(2.3)	85	70.1	144	12.1	162
March	101	(0.7)	101	68.5	170	(31.3)	116
April	101	(3.2)	98	68.0	165	(49.9)	83
May	110	(3.7)	106	69.6	179		
Total Year	$1,253	0.2	$1,255	51.0	$1,895		
Jun - Apr	$1,143	0.6	$1,150	49.3	$1,716	4.7	$1,796

Commercial Vehicles

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	$42	(1.7)	$42	35.5	$56	67.7	$94
July	41	8.0	44	29.2	57	38.0	79
August	45	13.4	51	57.3	79	6.4	85
September	41	19.3	48	70.1	82	4.3	86
October	49	(2.3)	48	41.6	68	46.8	100
November	42	1.6	43	42.8	61	103.6	124
December	45	(16.1)	38	52.3	57	86.9	107
January	47	(21.1)	37	64.5	61	114.8	131
February	35	5.5	36	72.9	63	97.4	125
March	41	6.8	44	147.2	108	5.4	114
April	41	11.9	46	146.9	112	(37.1)	71
May	42	27.3	54	93.7	104		
Total Year	$510	3.9	$530	71.8	$911		
Jun - Apr	$468	1.8	$476	69.4	$807	38.3	$1,116

Total Vehicles

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	$150	0.9	$152	40.5	$213	26.6	$270
July	159	0.0	159	38.0	219	22.0	267
August	162	7.0	173	42.8	247	8.5	268
September	147	6.7	156	46.8	230	16.3	267
October	157	4.8	165	40.9	232	26.5	293
November	145	0.8	146	43.5	209	38.6	290
December	147	(5.5)	139	45.8	202	37.7	278
January	139	(8.3)	128	63.0	208	47.8	307
February	122	(0.1)	121	70.9	208	38.0	286
March	142	1.4	144	92.3	278	(17.0)	231
April	142	1.1	144	93.1	277	(44.7)	153
May	152	4.9	159	77.7	283		
Total Year	$1,763	1.3	$1,785	57.2	$2,806		
Jun - Apr	$1,611	0.9	$1,626	55.1	$2,523	15.4	$2,912

NOTES:

(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.

(2) Leap year occurred in 2020, resulting in exaggerated traffic and toll revenue impacts in February 2020 compared to February 2019.

(3) In response to the COVID-19 pandemic, schools were closed state-wide on March 16, 2020 and stay at home orders for some counties began to take effect on March 23, 2020. A state-wide stay at home order was issued April 1, 2020.

(4) AET conversion and vehicle classification changes were implemented in June 2018.

(5) The I-576 tolling configuration was changed from six ramp tolls to two mainline toll gantries at the time of AET conversion in June 2018.

Table 11

Delaware River Bridge - Monthly Transaction and Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

Passenger Cars

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	606	(0.8)	601	7.3	645	28.4	828
July	647	(1.6)	637	4.3	664	28.4	853
August	657	(1.1)	650	6.0	689	24.0	855
September	573	0.6	577	6.6	616	21.6	748
October	583	0.0	583	20.1	700	8.6	760
November	570	(1.3)	563	24.1	699	9.2	763
December	555	(2.1)	543	32.6	720	6.0	763
January	330	41.7	467	31.0	612	8.8	666
February	0	N/A	446	31.4	586	11.6	653
March	320	62.3	519	36.3	707	(34.1)	466
April	545	2.8	561	33.0	746	(71.8)	211
May	577	6.0	611	30.8	799		
Total Year	5,963	13.3	6,758	21.1	8,182		
Jun - Apr	5,387	14.1	6,146	20.1	7,383	2.5	7,566

Commercial Vehicles

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	103	0.8	104	10.1	115	8.4	124
July	97	1.6	98	14.5	113	17.6	132
August	103	5.8	109	10.6	120	11.3	134
September	99	1.8	101	5.5	106	17.8	125
October	97	11.2	108	17.5	127	10.1	140
November	98	5.5	103	13.1	117	8.8	127
December	96	0.5	96	14.1	110	16.3	128
January	59	62.1	96	20.0	115	11.5	129
February	0	N/A	90	16.1	104	13.8	119
March	63	62.5	102	14.9	117	11.5	131
April	91	14.4	104	19.7	125	(12.3)	109
May	103	12.3	115	14.2	132		
Total Year	1,008	21.7	1,227	14.1	1,400		
Jun - Apr	905	22.7	1,111	14.1	1,268	10.1	1,397

Total Vehicles

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	709	(0.6)	705	7.7	760	25.4	953
July	744	(1.2)	735	5.7	777	26.8	985
August	760	(0.2)	759	6.7	810	22.1	988
September	672	0.8	678	6.5	722	21.0	873
October	680	1.6	691	19.7	827	8.9	900
November	668	(0.3)	666	22.4	815	9.1	890
December	651	(1.7)	639	29.8	830	7.4	891
January	389	44.8	563	29.1	727	9.2	794
February	0	N/A	535	28.8	690	11.9	772
March	383	62.3	621	32.8	824	(27.6)	597
April	636	4.5	665	30.9	870		
May	679	6.9	727	28.1	931		
Total Year	6,971	14.5	7,984	20.0	9,582		
Jun - Apr	6,292	15.3	7,258	19.2	8,651	(0.1)	8,644

Toll Revenue (in $1,000s)

Passenger Cars

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	3,150	(1.6)	$3,098	6.2	$3,291	34.5	$4,425
July	3,380	(3.5)	3,260	3.7	3,381	36.9	4,627
August	3,337	0.0	3,337	6.6	3,557	31.8	4,689
September	3,038	(1.3)	3,000	5.5	3,165	27.8	4,045
October	2,985	(0.8)	2,962	20.2	3,560	16.2	4,137
November	2,915	(4.5)	2,783	28.5	3,577	16.2	4,157
December	2,872	(1.6)	2,827	28.4	3,631	11.9	4,061
January	1,762	39.6	2,461	33.8	3,293	19.3	3,927
February	-7	N/A	2,265	39.7	3,164	19.3	3,776
March	1,591	65.9	2,639	45.8	3,848	(32.9)	2,583
April	2,775	3.7	2,879	40.0	4,030	(69.5)	1,230
May	2,929	6.0	3,104	39.5	4,330		
Total Year	$30,727	12.7	$34,615	23.7	$42,826		
Jun - Apr	$27,798	13.4	$31,511	22.2	$38,496	8.2	$41,658

Commercial Vehicles

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	1,845	1.9	$1,879	8.7	$2,043	14.3	$2,335
July	1,753	0.8	1,767	13.0	1,998	24.2	2,482
August	1,830	6.7	1,952	10.1	2,149	17.7	2,529
September	1,797	1.9	1,831	4.7	1,916	23.6	2,368
October	1,758	10.3	1,938	17.4	2,275	16.5	2,650
November	1,761	3.4	1,821	14.0	2,076	15.9	2,405
December	1,743	0.6	1,754	12.2	1,968	22.4	2,409
January	1,071	60.5	1,720	25.5	2,159	19.5	2,580
February	1	N/A	1,621	21.4	1,967	21.6	2,392
March	1,112	64.1	1,825	22.2	2,230	13.8	2,538
April	1,642	13.2	1,858	25.9	2,340	(5.7)	2,206
May	1,829	12.0	2,049	21.1	2,482		
Total Year	$18,142	21.4	$22,016	16.3	$25,603		
Jun - Apr	$16,313	22.4	$19,966	15.8	$23,121	16.3	$26,895

Total Vehicles

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	4,995	(0.3)	$4,978	7.2	$5,334	26.7	$6,760
July	5,133	(2.0)	5,027	7.0	5,379	32.2	7,109
August	5,166	2.4	5,289	7.9	5,706	26.5	7,218
September	4,835	(0.1)	4,831	5.2	5,081	26.2	6,413
October	4,742	3.3	4,900	19.1	5,835	16.3	6,787
November	4,677	(1.5)	4,604	22.8	5,653	16.1	6,562
December	4,615	(0.7)	4,581	22.2	5,599	15.6	6,470
January	2,834	47.5	4,181	30.4	5,452	19.4	6,508
February	-6	N/A	3,886	32.1	5,131	20.2	6,168
March	2,703	65.2	4,464	36.1	6,078	(15.7)	5,122
April	4,418	7.2	4,737	34.5	6,369		
May	4,758	8.3	5,154	32.2	6,812		
Total Year	$48,869	15.9	$56,631	20.8	$68,429		
Jun - Apr	$44,111	16.7	$51,478	19.7	$61,617	5.7	$65,117

NOTES:

(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.

(2) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.

(3) Leap year occurred in 2020, resulting in exaggerated traffic and toll revenue impacts in February 2020 compared to February 2019.

(4) In response to the COVID-19 pandemic, schools were closed state-wide on March 16, 2020 and stay at home orders for some counties began to take effect on March 23, 2020. A state-wide stay at home order was issued April 1, 2020.

Table 12

Gateway Toll Plaza - Monthly Transaction and Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

Passenger Cars

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	332	0.7	334	(2.8)	324	(2.9)	315
July	383	(4.2)	367	(2.5)	358	(4.3)	342
August	342	0.1	342	1.8	348	(3.2)	337
September	294	(5.9)	276	2.3	283	(5.3)	268
October	286	(2.3)	279	0.0	279	0.7	281
November	285	(1.9)	280	(1.7)	275	(2.9)	267
December	256	1.8	261	0.8	263	6.7	280
January	216	(9.8)	195	(2.5)	190	9.0	207
February	196	(4.5)	187	(1.2)	185	7.2	198
March	245	4.5	256	(2.8)	249	(34.5)	163
April	276	(8.0)	254	(0.3)	253	(68.9)	79
May	298	(2.4)	290	1.6	295		
Total Year	3,407	(2.5)	3,322	(0.6)	3,302		
Jun - Apr	3,110	(2.5)	3,031	(0.8)	3,007	(9.0)	2,738

Commercial Vehicles

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	87	0.3	87	1.4	88	(3.7)	85
July	82	(1.1)	81	4.2	84	(2.0)	83
August	89	0.4	90	3.3	93	(5.5)	87
September	83	(4.4)	80	3.5	83	0.8	83
October	84	4.5	88	4.7	92	5.2	96
November	80	1.6	81	1.6	83	2.8	85
December	78	(2.2)	76	1.2	77	8.5	83
January	78	2.6	80	1.7	81	7.3	87
February	73	3.6	75	1.5	76	9.3	83
March	85	(0.5)	84	1.0	85	7.4	92
April	80	5.7	84	2.2	86	(8.4)	79
May	87	3.6	90	0.6	90		
Total Year	984	1.1	995	2.2	1,018		
Jun - Apr	897	0.9	906	2.4	927	1.8	944

Total Vehicles

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	418	0.6	421	(2.0)	412	(3.1)	400
July	464	(3.6)	448	(1.3)	442	(3.9)	425
August	431	0.2	432	2.1	441	(3.7)	425
September	377	(5.6)	356	2.5	365	(3.9)	351
October	369	(0.7)	367	1.1	371	1.8	378
November	365	(1.1)	361	(0.9)	357	(1.5)	352
December	334	0.9	337	0.9	340	7.1	364
January	294	(6.5)	275	(1.3)	271	8.5	294
February	268	(2.3)	262	(0.5)	261	7.8	281
March	330	3.2	341	(1.9)	334	(23.8)	255
April	356	(4.9)	338	0.3	339	(53.5)	158
May	384	(1.0)	380	1.4	385		
Total Year	4,391	(1.7)	4,317	0.1	4,320		
Jun - Apr	4,007	(1.8)	3,937	(0.1)	3,935	(6.4)	3,681

Toll Revenue (in $1,000s)

Passenger Cars

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	$1,834	6.9	$1,962	3.1	$2,023	2.6	$2,075
July	2,134	1.2	2,159	3.3	2,231	1.7	2,269
August	1,885	6.1	2,000	8.1	2,161	1.9	2,203
September	1,634	(1.3)	1,612	8.2	1,745	0.7	1,757
October	1,574	2.6	1,615	5.7	1,708	(0.5)	1,699
November	1,560	3.2	1,610	4.0	1,675	3.3	1,730
December	1,399	7.1	1,497	6.7	1,597	28.8	2,057
January	1,231	(4.5)	1,176	2.6	1,206	28.3	1,547
February	1,125	0.8	1,134	4.7	1,187	15.4	1,370
March	1,421	10.9	1,576	3.1	1,626	(35.1)	1,054
April	1,605	(2.5)	1,565	5.2	1,646	(64.7)	581
May	1,725	3.5	1,785	8.0	1,928		
Total Year	$19,127	3.0	$19,692	5.3	$20,733		
Jun - Apr	$17,402	2.9	$17,906	5.0	$18,805	(2.5)	$18,342

Commercial Vehicles

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	$1,563	6.2	$1,661	9.2	$1,813	1.8	$1,845
July	1,474	5.4	1,554	15.0	1,787	3.4	1,848
August	1,612	7.2	1,728	11.1	1,920	(0.1)	1,917
September	1,516	1.5	1,539	11.8	1,720	5.3	1,811
October	1,525	10.3	1,682	11.6	1,877	5.8	1,986
November	1,445	8.6	1,569	7.4	1,685	8.9	1,835
December	1,414	3.5	1,464	7.4	1,571	15.2	1,811
January	1,481	9.5	1,622	7.6	1,746	7.7	1,881
February	1,400	9.5	1,533	8.0	1,657	7.9	1,787
March	1,634	5.3	1,721	7.4	1,848	3.7	1,915
April	1,528	12.2	1,715	8.4	1,859	(6.6)	1,737
May	1,648	11.4	1,835	5.7	1,940		
Total Year	$18,239	7.6	$19,622	9.2	$21,422		
Jun - Apr	$16,592	7.2	$17,787	9.5	$19,482	4.6	$20,374

Total Vehicles

Month	2016-17	% Chg	2017-18	% Chg	2018-19	% Chg	2019-20
June	$3,398	6.6	$3,623	5.9	$3,837	2.2	$3,920
July	3,608	2.9	3,713	8.2	4,018	2.5	4,117
August	3,496	6.6	3,728	9.5	4,081	1.0	4,120
September	3,149	0.1	3,151	10.0	3,465	3.0	3,568
October	3,098	6.4	3,297	8.7	3,584	2.8	3,685
November	3,005	5.8	3,179	5.7	3,359	6.1	3,565
December	2,813	5.3	2,961	7.0	3,169	22.1	3,868
January	2,712	3.2	2,797	5.5	2,952	16.1	3,427
February	2,525	5.6	2,667	6.6	2,844	11.0	3,157
March	3,055	7.9	3,297	5.4	3,473	(14.5)	2,970
April	3,134	4.7	3,280	6.9	3,505	(33.9)	2,318
May	3,373	7.3	3,621	6.8	3,868		
Total Year	$37,366	5.2	$39,314	7.2	$42,155		
Jun - Apr	$33,993	5.0	$35,693	7.3	$38,287	1.1	$38,715

NOTES:

(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.

(2) Leap year occurred in 2020, resulting in exaggerated traffic and toll revenue impacts in February 2020 compared to February 2019.

(3) In response to the COVID-19 pandemic, schools were closed state-wide on March 16, 2020 and stay at home orders for some counties began to take effect on March 23, 2020. A state-wide stay at home order was issued April 1, 2020.

(4) AET conversion occurred in October 2019.

It should be noted that the DRB was closed on January 20, 2017 due to a fracture in one of the structural support beams. The structure was closed to all traffic through March 9, 2017. This event negatively impacted the traffic and revenue values for FY 2016-17. CDM Smith analyzed the impact on Turnpike traffic and revenue during the closure and estimated that losses over this period amounted to 1.8 million transactions and $12.1 million in toll revenue.

The FY 2019-20 numbers, especially for passenger cars, were severely impacted by the COVID-19 pandemic that began affecting travel patterns in Pennsylvania in March 2020. Prior to that point, passenger car transaction growth had been slightly positive for the fiscal year through February but fell 37.5 percent in March 2020 and 71.8 percent in April 2020, compared to the same months in 2019. Commercial vehicle traffic fell less sharply, decreasing 5.3 percent in March 2020 and 28.0 percent in April, while total transactions decreased 32.8 percent in March and 65.2 percent in April. Revenue also decreased markedly in these two months, decreasing 38.8 percent in March and 73.2 percent in April for passenger cars, 5.4 percent in March and 20.2 percent in April for commercial vehicles, and 23.6 percent in March and 49.2 percent in April for total vehicles.

As previously mentioned, the Ticket System is by far the largest component of both traffic and toll revenue on the Turnpike System. As shown in Table 4, total year-to-date transactions decreased 9.6 percent compared to the same period in the prior year. Year-to-date passenger car transactions decreased by 10.8 percent during this period. Year-to-date commercial vehicle activity has decreased by 2.4 percent compared to the previous 11-month period. Total revenue for the Ticket System grew by 7.8 percent in FY 2017-18 and by 10.4 percent in FY 2018-19. Year-to-date FY 2019-20 revenue has fallen by 0.9 percent compared to the same period in the previous year. The previously mentioned ongoing COVID-19 pandemic began significantly impacting travel patterns in March 2020. Total vehicle transactions in March 2020 were down 34.8 percent compared to March 2019, while total transactions in April 2020 fell 68.1 percent compared to April 2019. Total vehicle revenue was down 24.5 percent and 50.3 percent in March and April, respectively.

The combined barrier facilities monthly transaction and revenue data is shown in Table 5. Year-to-date transactions decreased 4.6 percent in FY 2019-20 compared to the same period in the previous year. Commercial vehicle transactions increased 1.5 percent for this time period, while passenger cars fell 5.7 percent. Total revenue for the combined barrier facilities grew 5.2 percent overall year-to-date. Growth in toll revenue at the barrier facilities has outpaced transaction growth due to system-wide annual toll increases and AET conversions on AKH and the Gateway Toll Plaza in October 2019. These AET conversions resulted in a significant increase in video transactions, which also had the effect of increasing the average toll rates. As with the Ticket System, the ongoing COVID-19 pandemic began significantly impacting travel patterns in March 2020. Total vehicle transactions were down 27.0 percent in March 2020 and 56.7 percent in April 2020 compared to the same months in 2019, while total vehicle revenue was down 17.6 percent and 42.8 percent in March and April, respectively.

Traffic and gross toll revenue trends for the seven barrier toll facilities are provided in Tables 6 through 12. These seven barrier facilities (MFE, AKH, the Northeast Extension barrier plazas, BVE, Findlay Connector, DRB, and the Gateway Toll Plaza) contribute about 14 percent of the total systemwide gross toll revenue.

The effects of ramp-up, inclement weather, alternative routes, and new developments have a more significant impact on these relatively low volume roads. However, each barrier system has experienced a smaller year-to-date percent decrease in total transactions due to the COVID-19 pandemic than has the ticket system. The Findlay Connector (Table 10) has actually experienced slight overall traffic growth through the first 11 months of FY 2019-20 despite the significant decreases in March and April. Due to increasing toll rates, five of the seven facilities have managed to have positive revenue growth over the same time period, with the exceptions being MFE (Table 6) and AKH (Table 7).

Actual and Assumed Toll Rate Increases

Annual toll rate increases are assumed to occur on the entire Turnpike System. The toll rate increases are assumed to occur at 12:01 AM on the first Sunday after January 1 of each year unless otherwise noted. **Table 13** presents the annual percent increases in toll rates for E-ZPass, cash, and video from calendar year 2020 through 2050.

Rate increase assumptions are unchanged since the 2019 Bring Down Letter, except for the calendar year 2021 increase, which is now scheduled for a six-percent increase (as opposed to the five-percent increase that was previously planned). Additionally, this increase is scheduled to occur in October 2020 rather than January 2021 and will include an additional 45-percent increase for cash tolls. This will occur at the only two remaining locations where cash toll collection is permitted, including the Ticket System and MFE. By including this 45-percent cash-only increase, in addition to the six-percent across-the-board increase, the percent cash toll differential (compared to E-ZPass rates) will be equal to video tolls, essentially condensing the three toll schedules that now exist (E-ZPass, cash, video) to two (E-ZPass, non-E-ZPass). As mentioned earlier, these toll adjustment assumptions are proposed and haven't been formally approved yet by the PTC Board. Absent their approval, an across the board five-percent toll increase would occur on or about January 1, 2021.

The impact of COVID-19 has resulted in dramatically reduced travel on the Turnpike System, as well as throughout the state and country. Increasing the next toll adjustment from five-percent to six-percent helps, in a small way, to make up for some lost toll revenue. Moving the toll increase date from January 2021 to October 2020 also results in a small amount of increased revenue.

The proposed 45-percent cash surcharge for the Ticket System and MFE in October 2020 would have occurred in October 2021 as both of these facilities convert to AET. As on the other PTC toll

Table 13
Actual and Assumed Percent Changes in Turnpike System Toll Rates
Pennsylvania Turnpike System

Calendar Year (2)	Percent Changes in Turnpike System's Toll Rates (1)		
	E-ZPass	Cash	Video
2020 (3)	6.00	6.00	6.00
2020 (4)	6.00	6.00 + 45.00	6.00
2022 (5)	5.00	N/A	5.00
2023	5.00	N/A	5.00
2024	5.00	N/A	5.00
2025	5.00	N/A	5.00
2026	4.00	N/A	4.00
2027	3.50	N/A	3.50
2028	3.00	N/A	3.00
2029	3.00	N/A	3.00
2030	3.00	N/A	3.00
2031	3.00	N/A	3.00
2032	3.00	N/A	3.00
2033	3.00	N/A	3.00
2034	3.00	N/A	3.00
2035	3.00	N/A	3.00
2036	3.00	N/A	3.00
2037	3.00	N/A	3.00
2038	3.00	N/A	3.00
2039	3.00	N/A	3.00
2040	3.00	N/A	3.00
2041	3.00	N/A	3.00
2042	3.00	N/A	3.00
2043	3.00	N/A	3.00
2044	3.00	N/A	3.00
2045	3.00	N/A	3.00
2046	3.00	N/A	3.00
2047	3.00	N/A	3.00
2048	3.00	N/A	3.00
2049	3.00	N/A	3.00
2050	3.00	N/A	3.00

(1) Toll rate increases are the same for all facilities and vehicle classes.
(2) Except where otherwise indicated, toll rate increases are applied on or near January 1.
(3) Toll rate increases are actual.
(4) Rate increase will occur in October 2020 instead of January 2021. All rates will increase by 6%, except for the two remaining facilities where cash is accepted: the Ticket System and Mon Fayette Expressway (Turnpike 43). Cash rates at these two location will increase by an additional 45% to bring cash rates in line with video rates.
(5) Beginning in 2022, all facilities will be AET and cash collection will no longer be an option.

facilities that have converted to AET, a 45-percent video surcharge has been imposed to recoup expected revenue leakage. PTC is advancing the surcharge implementation date by one year on the Ticket System and MFE for three reasons:

1. It generates slightly more toll revenue for one year;
2. The greater toll differential between cash and E-ZPass toll rates encourages greater use of E-ZPass (whose rates will be about half those of cash); and
3. It simplifies the rate schedule into two categories for the entire Turnpike Sytem: E-ZPass and non-E-ZPass.

The toll revenue impacts of the rate changes discussed above are estimated to generate an additional $62 million in FY 2020-21 (about a 4.8 percent increase). For FY 2021-22 CDM Smith estimates that an additional $59 million will be generated (about a 3.9 percent increase). For FY 2022-23 and beyond, the positive revenue impact amounts to about one-percent. This is due to the change in the rate adjustment from five-percent to six-percent in October 2020.

Actual and Assumed E-ZPass Penetration Rates

Table 14 presents the actual and assumed annual E-ZPass penetration rates from calendar year 2018 through 2050. The first three columns show the E-ZPass market share assumptions for the current 2020 Bring Down Letter. These were adjusted slightly on a facility by facility basis, by the amount shown in the three rightmost columns, over assumptions used in the 2019 Bring Down Letter.

Table 14
Actual and Assumed Percent E-ZPass Penetration
Pennsylvania Turnpike System

E-ZPass Penetration Rates

Calendar Year	2020 Bring Down Letter Cars	Trucks	Total	Difference from 2019 Bring Down Letter Cars	Trucks	Total
2018	80.0	90.6	81.5	0.0	0.0	0.0
2019	81.4	91.7	82.9	-0.1	0.7	0.0
2020	83.0	92.2	84.3	0.1	0.7	0.2
2021	84.7	93.0	85.9	0.8	1.0	0.8
2022	85.9	93.8	87.1	0.7	1.2	0.8
2023	86.6	94.2	87.8	0.6	1.1	0.7
2024	87.3	94.7	88.4	0.5	1.1	0.6
2025	87.8	95.1	88.9	0.5	1.4	0.6
2026	88.3	95.5	89.4	0.4	1.7	0.6
2027	88.8	95.8	89.8	0.5	2.0	0.6
2028	89.1	96.2	90.2	0.3	2.3	0.7
2029	89.5	96.3	90.6	0.3	2.4	0.7
2030	89.8	96.3	90.8	0.2	2.3	0.5
2031	89.9	96.4	90.9	-0.1	2.4	0.3
2032	90.0	96.4	91.0	-0.1	2.4	0.3
2033	90.1	96.5	91.1	0.0	2.4	0.4
2034	90.2	96.5	91.2	0.0	2.4	0.4
2035	90.2	96.5	91.2	-0.1	2.3	0.3
2036	90.3	96.6	91.3	0.0	2.4	0.4
2037	90.4	96.6	91.3	0.1	2.4	0.4
2038	90.4	96.7	91.4	0.0	2.4	0.4
2039	90.5	96.7	91.4	0.1	2.4	0.4
2040	90.5	96.7	91.5	0.1	2.4	0.5
2041	90.6	96.8	91.5	0.2	2.4	0.5
2042	90.6	96.8	91.6	0.2	2.4	0.6
2043	90.7	96.8	91.6	0.3	2.4	0.5
2044	90.7	96.9	91.7	0.3	2.5	0.6
2045	90.8	96.9	91.7	0.3	2.4	0.6
2046	90.8	97.0	91.8	0.3	2.5	0.7
2047	90.8	97.0	91.8	0.3	2.5	0.7
2048	90.9	97.0	91.9	0.4	2.5	0.8
2049	90.9	97.1	91.9	0.4	2.6	0.8
2050	91.0	97.1	92.0	N/A	N/A	N/A

Note: The E-ZPass penetration rates for this 2020 Bring Down Letter are actual through 2019 and were actual only through 2018 for the 2019 Bring Down Letter.

As shown, differences between assumed E-ZPass market share in the current analysis are very similar to those assumed in the 2019 Bring Down Letter. Actual commercial vehicle (truck) E-ZPass market share has slightly exceeded our previous estimates. This results in new 2020 estimates being about 0.7 percent higher than previous estimates. By the end of the forecast period, commercial vehicle E-ZPass market share is about 2.6 percent higher than previous forecasts. It should be noted, too, that the maximum allowable commercial vehicle E-ZPass market share has been increased for the current analysis. In the 2019 Bring Down Letter, commercial vehicle E-ZPass market share was capped when it reached 95 percent. Given the continued robust growth observed since the last forecast, however, the cap was increased to 97.5 percent for the current study.

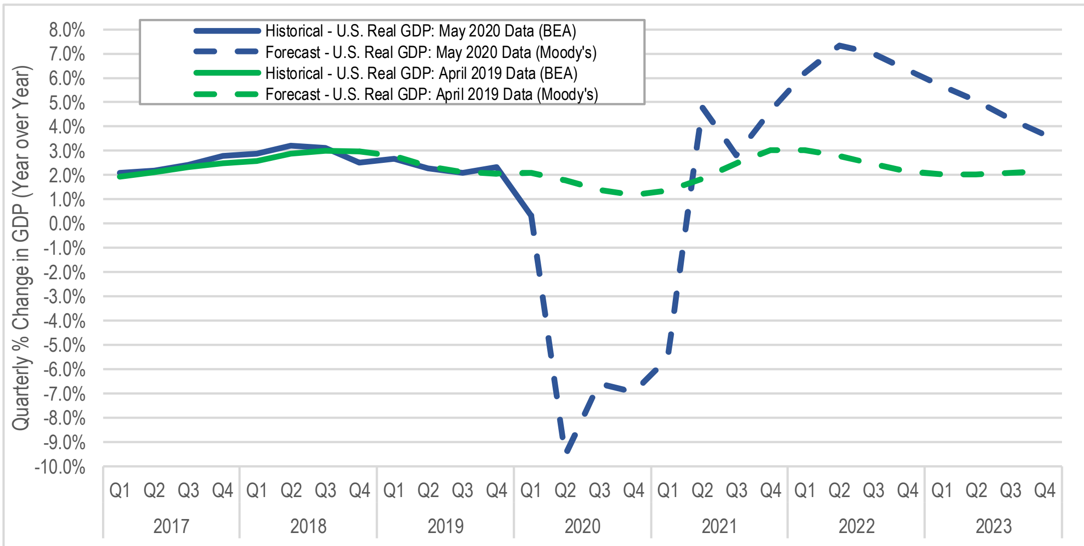
Passenger car E-ZPass market share forecast assumptions remain largely unchanged from those in the 2019 Bring Down Letter. The only difference is that beginning in 2021 there is a 0.8-percent increase in passenger car E-ZPass market share compared to the previous forecast. This is due to the fact that we are now assuming a 45-percent video surcharge on the Ticket System and MFE beginning in October 2020. This was not assumed in the 2019 Bring Down Letter and has the effect of shifting more motorists to the lower cost E-ZPass option. This difference slowly diminishes through about 2030 as the facilities reach the assumed E-ZPass market share cap of just over 90 percent.

Summary of Changes in Future Year Estimates for U.S. Gross Domestic Product and Pennsylvania Gross State Product

This section presents a comparison of the Gross Domestic Product (GDP) and Pennsylvania Gross State Product (GSP) information available for the 2020 Bring Down Letter with updated forecasts for both measures from Moody's Analytics. This information was a key input in developing estimated growth forecasts for the Turnpike System. All GDP and GSP figures in this section refer to year over year comparisons. For example, the 2nd quarter 2020 percent change would reflect the 2nd quarter of 2020 versus the 2nd quarter of 2019.

Figure 3 shows actual and estimated GDP at the time of the 2019 Bring Down Letter as well as the revised figures based on updated Moody's Analytics' forecasts as of May 2020. As shown, actual experience in 2019 closely matched the 2019 forecast, underperforming the forecast by 0.1 percent in the first and second quarters and overperforming it by 0.2 percent in the fouth quarter. However, due to the COVID-19 pandemic and the steep decline in GDP growth experienced in the first quarter of 2020, the revised GDP growth estimates in 2020 predict much lower growth in 2020. GDP is forecast to fall 9.6 percent in the second quarter of 2020, with negative growth continuing through the first quarter of 2021. Recovery from the pandemic is forecast to be strong throughout the remainder of the forecast period. GDP growth is expected to accelerate through 2021 and the first half of 2022, reaching 7.3 percent in the second quarter of 2022. GDP is then forecast to continue growing, albeit it at a slowing rate, through the end of 2023, when 3.7 percent growth is forecast.

Figure 3
Comparison of April 2019 to May 2020 Quarterly Growth Estimates of U.S. Gross Domestic Product

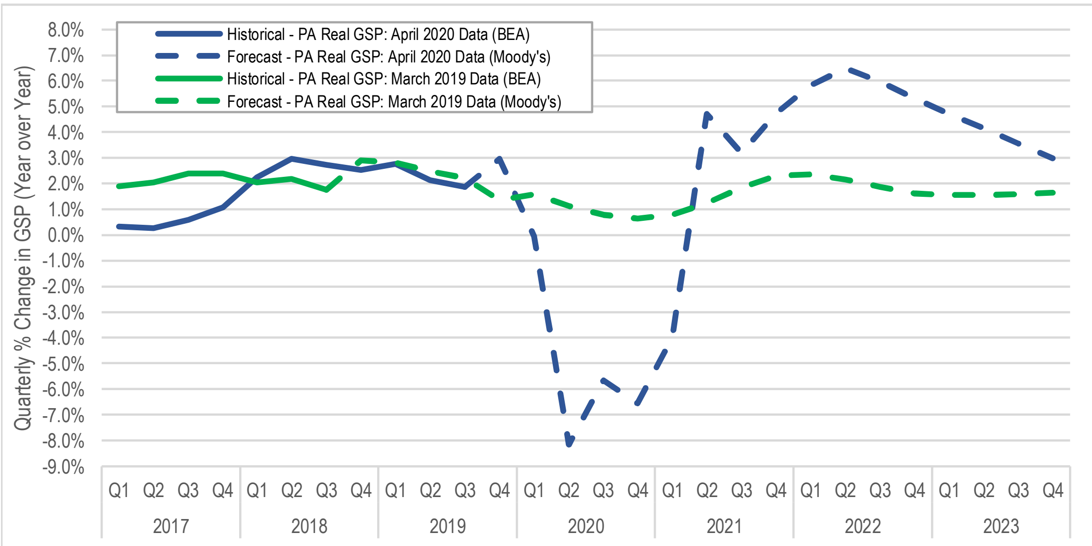


Sources: Historical estimates are from the BEA, and the forecasts are from Moody's Analytics (April 2019 and May 2020 Releases)

Figure 4 shows GSP trend and forecast data for Pennsylvania. Revised GSP numbers for 2017 show that historical growth in 2017 was lower than previously estimated, while growth through the first three quarters of 2018 was higher. The most recent four quarters for which historical estimates exist (fourth quarter of 2018 through the third quarter of 2019) had lower growth than the prior forecast by a range of 0.0 to 0.4 percent. Like GDP, the GSP forecast for the remainder of the forecast period has been significantly altered by the COVID-19 pandemic. GSP is forecast to fall sharply in the second quarter of 2020 (-8.2 percent), with continued, although lessening, negative growth through the first quarter of 2021. A strong recovery period is forecast from the second quarter of 2021 through the end of the forecast period. GSP growth during this time is expected to peak at 6.5 percent in the second quarter of 2022. Like GDP, GSP is forecast to continue to grow at a decreasing rate through the remainder of the forecast period, slowing to 3.0-percent growth by the end of 2023.

Overall, actual GDP and GSP growth closely matched forecasted growth rates in 2019, although the COVID-19 pandemic resulted in significant negative growth in the first quarter of 2020 when continued moderate positive growth had been expected. Based on this information it might be expected that actual traffic growth in 2019 would have also closely matched CDM Smith's 2019 Bring Down Letter estimates. As will be discussed in more detail below, actual traffic and toll revenue on the total System slightly outperformed CDM Smith's estimates through February 2020. This is likely due to other factors, namely motor fuel prices and consumer confidence, that are discussed in the next section.

Figure 4
Comparison of March 2019 to April 2020 Quarterly Growth Estimates of Pennsylvania Gross State Product



Sources: Historical estimates are from the BEA, and the forecasts are from Moody's Analytics (March 2019 and April 2020 Releases)

Summary of Trends in Fuel Prices

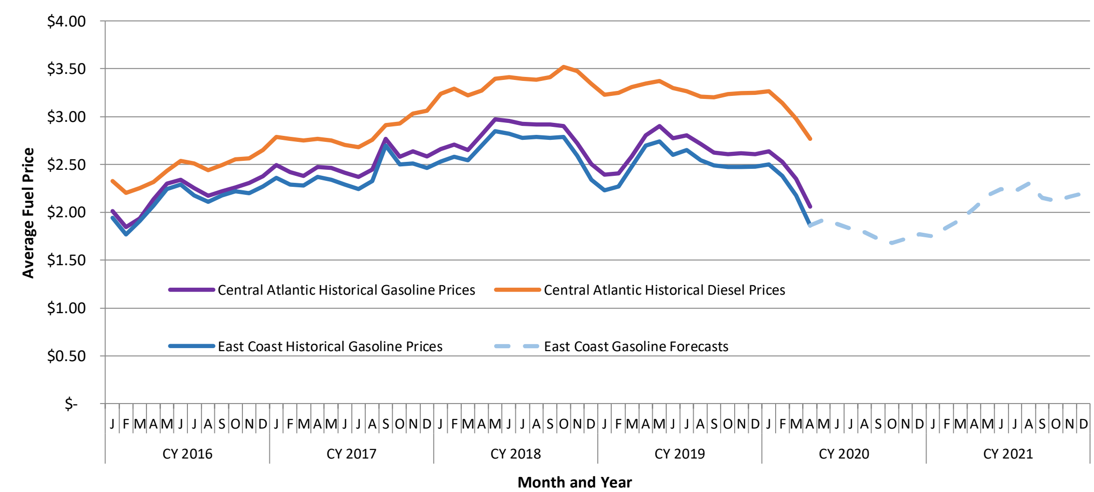
Figure 5 portrays gasoline and diesel prices for the Central Atlantic Region from January 2016 through April 2020. Gasoline prices for the East Coast are also shown. They closely mirror those for the Central Atlantic gasoline prices and are shown here because the Energy Information Administration (EIA) also provides monthly forecasts for this region. Figure 5 shows the monthly forecasts through the end of 2021.

As shown, Central Atlantic gasoline and diesel prices have followed generally similar trends throughout this period, although over the past year gasoline prices have had slightly greater price fluctuations than diesel prices. Generally, both prices have moved in tandem, decreasing over the first few months of 2016, reaching a low of $1.85 per gallon for gasoline and $2.20 per gallon for diesel in February 2016. Prices for both increased slowly but steadily throughout 2016, 2017, and early 2018, reaching a high of $2.97 per gallon for gasoline in May 2018. Prices fluctuated within a narrow range for the remainder of 2018, with diesel reaching a high of $3.52 per gallon in October 2018. Prices of both gasoline and diesel fell in late 2018 and early 2019. Between February and May 2019 prices rose, with gasoline prices increasing more rapidly than diesel prices. For the remainder of 2019, prices decreased slightly, with diesel prices remaining very stable and gasoline prices experiencing slightly more volatility.

For most of the year following the development of the 2019 Bring Down Letter motor fuel prices remained relatively stable, and even slightly declined. However, over the past two months prices have fallen sharply in response to an early March announcement that Saudi Arabia and Russia would increase oil supply in the coming months followed shortly thereafter by an extreme worldwide economic slowdown in response to the COVID-19 pandemic. As a result, prices in the Central Atlantic region fell to $2.06 and $2.77 for gasoline and diesel, respectively, in April 2020.

As noted above, the EIA only forecasts future gasoline prices for the East Coast, which is a region that is larger than and wholly encompasses the Central Atlantic region. Historically, East Coast region prices move in tandem with Central Atlantic prices but are approximately 10 to 20 cents lower. These East Coast gasoline prices are forecast to remain low, but stable, over the next few months, bottoming out in October at $1.68 per gallon. Prices are then forecast to rise slowly over the last few months of 2020 and early 2021, stabilizing between $2.12 and $2.30 per gallon in the summer and fall of 2021. Based on historical trends, Central Atlantic prices can be expected to follow the same pattern, but at slightly higher prices.

Figure 5
Historic and Forecast Regional Fuel Prices ($ per Gallon)



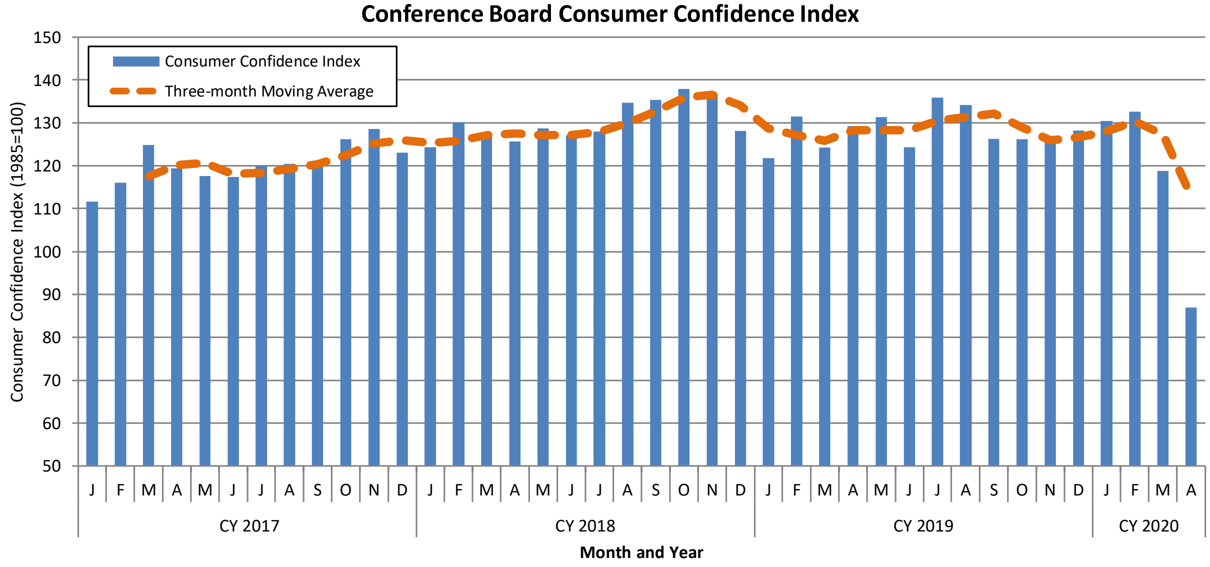
Source: U.S. Energy Information Administration, release dates 5/4/2020 (historical) and 5/12/2020 (forecast).
Note: Retail Prices in USD for Regular All Formulations Retail Gasoline and Number 2 Diesel.
Central Atlantic states include Delaware, District of Columbia, Maryland, New Jersey, New York, and Pennsylvania.
East Coast states include Central Atlantic and New England states, Florida, Georgia, North Carolina, South Carolina, Virginia, and West Virginia.

Consumer Confidence

Consumer confidence is an important measure in that it highlights consumer's confidence in making purchases, their willingness to travel more, etc. Higher consumer confidence spurs demand for various goods and services, and it can be inferred that higher demand results in higher traffic on the roadways. Consumer confidence scores are indexed to the year 1985, for which consumer confidence equaled 100.

Figure 6 shows the Conference Board Consumer Confidence Index for the period between January 2017 and April 2020. The individual blue bars show the index values for each month while the dotted line shows the three-month moving average. As shown, consumer confidence trended up through November 2018. The average exceeded 110 at the beginning of 2017, rose to 126 by the end of the year, and surpassed 130 in 2018, peaking at a high of 137.9 in October, which was the highest level of consumer confidence since September 2000. In 2019, consumer confidence fell slightly compared to 2018 but remained strong compared to historical levels. Through the first two months of 2020, consumer confidence remained strong, increasing slightly since the end of 2019. However, consumer confidence declined sharply in March and even more significantly in April, when it fell to 86.9, reflecting the widespread economic shutdowns that have been put in place as a result of the COVID-19 pandemic. April consumer confidence data is currently preliminary, based on data gathered through April 17 and therefore exclusive of influences from the end of the month. It is subject to change with the next release, and therefore may be higher or lower than currently reported.

Figure 6
Conference Board Consumer Confidence Index



Source: The Conference Board, release date 4/28/2020.

Committed Roadway Improvements

Table 15 lists major capacity-enhancing roadway improvements with dedicated funding on the Pennsylvania Turnpike System. Most of these projects are part of PTC's statewide Total Reconstruction Initiative, which is a multi-year project to widen the mainline and the Northeast Extension to six lanes (three in each direction). On the Mainline I-76/I-276 this includes work throughout the Pittsburgh, Somerset, and Philadelphia metro areas. More than 150 miles have been completed as of January 2020, with more than 15 additional miles under construction or funded. An additional 15 miles of the Northeast Extension have been widened, with 15 more miles scheduled to be completed by 2024.

In addition to roadway widening, Table 15 highlights three additional projects:

- A new cashless tolling interchange between I-276 and Lafayette Street in Montgomery County;
- An eight-mile extension of MFE to PA Route 837 in Allegheny County; and
- A 12.5-mile extension of Findlay Connector (Southern Beltway) in the Pittsburgh area.

Table 15
Major Committed Roadway Improvements on the Pennsylvania Turnpike System (1)

Milepost	Counties	Description	Actual or Assumed Start Date	Assumed Completion Date
Mainline I-76/I-276				
28-31	Alleghany and Butler	Reconstruct and widen to 3 lanes in each direction	May 2020	September 2022
102-109	Somerset County	Reconstruct and widen to 3 lanes in each direction	March 2021	Fall 2023
126-130	Somerset and Bedford	Reconstruct and widen to 3 lanes in each direction	March 2022	Fall 2024
331	Montogmery	Construct a new cashless tolling interchange at Lafayette Street	Fall 2024	Fall 2027
Northeast Extension I-476				
A31-A38	Montgomery	Reconstruct and widen to 3 lanes in each direction	Early 2018	June 2021
A38-A44	Montgomery and Bucks	Reconstruct and widen to 3 lanes in each direction	Fall 2021	Fall 2024
Mon/Fayette Expressway Turnpike 43				
PA-51 to PA Route 837	Allegheny	Construct a eight-mile extension of the existing Turnpike 43 including three new interchanges	Summer 2022	2028
Southern Beltway Toll 576				
US-22 to I-79	Washington and Allegheny	Construct a 12.5-mile cashless tolling extension of Toll 576 from the southern terminus of the Findlay Connector at US-22 to I-79 including four new interchanges	December 2016	October 2022

(1) The major committed roadway improvement projects listed here are a small subset of all projects listed in PTC's FY 2020 Ten Year Capital Plan.

These projects will serve to enhance capacity and create additional connections to other routes, all of which are expected to increase the number of travelers, and therefore revenue, on the Pennsylvania Turnpike System.

In addition to PTC-funded projects, the Pennsylvania Department of Transportation's (PennDOT's) Transportation Improvement Program (TIP) was reviewed. This review found no projects on competing or complementary routes that are expected to have an impact on Pennsylvania Turnpike System traffic and revenue.

Actual Versus Estimated Traffic and Toll Revenue

Table 16 provides a comparison of actual traffic and toll revenue versus estimated traffic and toll revenue from CDM Smith's 2019 Bring Down Letter. The analysis period in this table is from March 2019 through February 2020. This twelve-month period corresponds to the period for which actual data currently exists but was estimated at the time of the 2019 Bring Down Letter. Crucially, this period is also prior to the significant reductions in toll transactions and revenue that PTC facilities began to experience in March due to the COVID-19 pandemic. Therefore, the difference between actual and estimated traffic and revenue in Table 16 reflects only normal, pre-COVID-19, conditions. **Table 17** was prepared in the same format but reflects actual versus estimated traffic and revenue only for March and April 2020; differences in this table reflect the impact COVID-19 has had on Turnpike System traffic and toll revenue.

For the non-COVID-19 impacted period shown in Table 16, Systemwide actual passenger car transactions surpassed estimates by 1.2 percent, and passenger-car toll revenue exceeded estimates by 4.2 percent. Commercial vehicle transactions exceeded estimates by 1.7 percent, and actual commercial vehicle toll revenue was 1.7 percent greater than estimates. When all vehicles are considered, actual transactions were higher than estimates by 1.2 percent and toll revenue exceeded estimates by 3.1 percent.

The same information is provided in Table 16 for each individual Turnpike toll facility. Because a separate forecast was not provided for the Gateway Toll Plaza in the 2019 Bring Down Letter, the Ticket System and Gateway are grouped together for the purposes of this analysis. Total transactions for the Ticket System and Gateway barrier were 0.7 percent higher than the forecasted traffic, while actual total revenue was 2.8 percent higher than estimated.

All barrier facilities overperformed when compared to the 2019 Bring Down Letter transaction forecasts. However, toll revenue for AKH was 2.0 percent lower than forecast. Toll revenue for the other five barrier facilities was higher than CDM Smith estimates by between 3.2 percent (MFE) and 31.2 percent (Findlay Connector) for both passenger car and commercial revenue combined.

Table 16
Comparison of Estimated and Actual Traffic Volumes and Gross Toll Revenue
From March 2019 Through February 2020 (1)
Pennsylvania Turnpike System

	Total Traffic (in Thousands)			Total Gross Toll Revenue (in Thousands)		
Facility	Estimated	Actual	Percent Difference between Actual and Estimated	Estimated	Actual	Percent Difference between Actual and Estimated
			Passenger Cars			
Ticket and Gateway Barrier	131,314	132,270	0.7	$661,274	$689,223	4.2
Delaware River Bridge	8,978	9,142	1.8	48,878	50,052	2.4
Turnpike 43	12,283	12,321	0.3	21,487	22,112	2.9
Turnpike 66	6,339	6,406	1.1	12,319	12,332	0.1
Northeast Extension (Barrier)	4,339	4,846	11.7	4,884	5,753	17.8
Turnpike I-376	7,211	7,392	2.5	11,090	11,810	6.5
Turnpike I-576	1,558	1,635	4.9	1,823	2,110	15.8
Barrier Subtotal	40,707	41,742	2.5	$100,480	$104,170	3.7
Total System	172,022	174,012	1.2	$761,754	$793,393	4.2
			Commercial Vehicles			
Ticket and Gateway Barrier	23,049	23,241	0.8	$564,359	$571,327	1.2
Delaware River Bridge	1,393	1,531	9.9	26,634	29,202	9.6
Turnpike 43	1,084	1,110	2.3	5,530	5,780	4.5
Turnpike 66	1,111	1,092	(1.7)	5,958	5,584	(6.3)
Northeast Extension (Barrier)	1,209	1,290	6.8	7,169	8,035	12.1
Turnpike I-376	1,452	1,399	(3.6)	4,649	4,573	(1.6)
Turnpike I-576	287	420	46.4	744	1,255	68.8
Barrier Subtotal	6,537	6,843	4.7	$50,683	$54,429	7.4
Total System	29,586	30,084	1.7	$615,042	$625,756	1.7
			Total Vehicles			
Ticket and Gateway Barrier	154,363	155,470	0.7	$1,225,634	$1,260,550	2.8
Delaware River Bridge	10,371	10,673	2.9	75,511	79,254	5.0
Turnpike 43	13,367	13,430	0.5	27,017	27,892	3.2
Turnpike 66	7,450	7,498	0.6	18,276	17,916	(2.0)
Northeast Extension (Barrier)	5,547	6,136	10.6	12,053	13,788	14.4
Turnpike I-376	8,663	8,792	1.5	15,739	16,383	4.1
Turnpike I-576	1,846	2,056	11.4	2,566	3,366	31.2
Barrier Subtotal	47,244	48,585	2.8	$151,163	$158,599	4.9
Total System	201,608	204,096	1.2	$1,376,796	$1,419,149	3.1

(1) These 12 months correspond to the period for which actual data exists, but was estimated at the time of CDM Smith's 2019 Bring Down Letter, and before traffic and figures were impacted by the COVID-19 pandemic.

Table 17
Comparison of Estimated and Actual Traffic Volumes and Gross Toll Revenue
March and April 2020 (1)
Pennsylvania Turnpike System

	Total Traffic (in Thousands)			Total Gross Toll Revenue (in Thousands)		
Facility	Estimated	Actual	Percent Difference between Actual and Estimated	Estimated	Actual	Percent Difference between Actual and Estimated
			Passenger Cars			
Ticket and Gateway Barrier	21,269	9,268	(56.4)	$108,438	$45,900	(57.7)
Delaware River Bridge	1,412	677	(52.1)	8,077	3,813	(52.8)
Turnpike 43	2,000	1,157	(42.1)	3,600	2,198	(39.0)
Turnpike 66	1,018	658	(35.3)	2,131	1,213	(43.1)
Northeast Extension (Barrier)	627	293	(53.3)	640	374	(41.6)
Turnpike I-376	1,156	631	(45.4)	1,990	1,034	(48.0)
Turnpike I-576	258	155	(39.9)	243	199	(18.1)
Barrier Subtotal	6,472	3,571	(44.8)	$16,681	$8,831	(47.1)
Total System	27,741	12,839	(53.7)	$125,120	$54,731	(56.3)
			Commercial Vehicles			
Ticket and Gateway Barrier	3,783	3,146	(16.8)	$96,964	$82,780	(14.6)
Delaware River Bridge	225	240	6.7	4,534	4,745	4.7
Turnpike 43	175	133	(24.1)	945	759	(19.7)
Turnpike 66	179	146	(18.2)	1,054	720	(31.7)
Northeast Extension (Barrier)	190	181	(4.5)	1,012	1,240	22.5
Turnpike I-376	236	179	(23.9)	834	626	(24.9)
Turnpike I-576	46	56	23.4	101	185	83.9
Barrier Subtotal	1,050	936	(10.8)	$8,480	$8,274	(2.4)
Total System	4,833	4,082	(15.5)	$105,443	$91,054	(13.6)
			Total Vehicles			
Ticket and Gateway Barrier	25,052	12,414	(50.4)	$205,402	$128,680	(37.4)
Delaware River Bridge	1,637	917	(44.0)	12,611	8,558	(32.1)
Turnpike 43	2,175	1,290	(40.7)	4,545	2,956	(35.0)
Turnpike 66	1,197	805	(32.8)	3,185	1,933	(39.3)
Northeast Extension (Barrier)	816	474	(41.9)	1,652	1,614	(2.3)
Turnpike I-376	1,392	810	(41.8)	2,823	1,660	(41.2)
Turnpike I-576	303	211	(30.4)	344	384	11.7
Barrier Subtotal	7,521	4,507	(40.1)	$25,161	$17,105	(32.0)
Total System	32,573	16,921	(48.1)	$230,563	$145,785	(36.8)

(1) These two months correspond to the period for which actual data was estimated at the time of CDM Smith's 2019 Bring Down Letter and now exist but were significantly impacted by the COVID-19 pandemic.

Given the positive economic performance, low motor fuel prices, and strong consumer confidence that continued through February 2020, it is not surprising that Turnpike System traffic and revenue actual experience slightly outperformed CDM Smith's estimates. As noted above, the information in Table 16 does not include actual versus estimates for March and April 2020, when the impacts of COVID-19 began to be felt in the state, region, and country. Those impacts are provided in Table 17.

Table 17 highlights the strong negative impacts COVID-19 had on Turnpike travel demand, especially given the System's traffic and toll revenue overperformance through February 2020. The following items are a partial listing of official actions taken by the Commonwealth of Pennsylvania in response to the pandemic and are provided to give context as to the extent that travel on PTC facilities was negatively impacted throughout the course of the past two months:

- March 6: Emergency disaster declaration signed;
- March 11: State employees are banned from travelling and large meetings, conferences, trainings, and community events postponed without prior approval from the governor's office;
- March 13: Montgomery County schools closed;
- March 14: Delaware County schools closed;
- March 15: Bucks and Chester Counties schools closed;
- March 16: All K-12 schools state-wide closed for 10 business days;
- March 17: State-wide closure of dine-in restaurants, childcare facilities, adult day care centers, and senior community centers and all state employees instructed to work from home if feasible;
- March 23: Stay-at-home order issued for 7 of 67 counties and all non-life sustaining businesses ordered to close physical locations;
- March 24-31: Stay-at-home order gradually extended to 33 of 67 counties;
- April 1: State-wide stay-at-home order issued;
- April 9: Announcement that schools will remain closed through end of school year; and
- April 20: State-wide stay-at-home order extended until May 8.

Actions taken to start reopening the Commonwealth's economy did not begin to take effect until May and therefore their effects on traffic and revenue are not reflected in the data presented in this Bring Down Letter.

Systemwide, total transactions fell short of estimates by 48.1 percent, and total toll revenue was 36.8 percent lower than estimates for March and April. Passenger-car traffic was significantly more affected than commercial vehicle traffic, with actual passenger-car traffic and revenue falling short of estimates by 53.7 percent and 56.3 percent, respectively. Commercial vehicle traffic and revenue was still lower than estimates, but by only 15.5 percent and 13.6 percent, respectively.

The same information is provided in Table 17 for each of the Turnpike toll facilities. Total transactions for the Ticket System and Gateway barrier were 50.4 percent lower than the forecasted traffic, while actual total revenue was 37.4 percent lower than estimated. Impacts to barrier facilities were slightly less, with total transactions being 40.1 percent lower and total revenue being 32.0 percent lower than estimated in the 2019 Bring Down Letter. As with the Ticket System, commercial vehicles were much less impacted than passenger cars, with passenger-car transactions falling 44.8 percent short of estimates and commercial-vehicle traffic only being 10.8 percent lower. Passenger-car revenue was 47.1 percent lower than estimated, while commercial-vehicle revenue was only 2.4 percent lower.

Estimated COVID-19 Traffic and Toll Revenue Impacts

A key undertaking of this new forecast was to estimate the traffic and toll revenue impacts related to the COVID-19 pandemic over the forecast period. CDM Staff worked closely with PTC staff in collecting and reviewing daily traffic and toll revenue data for each of the Turnpike systems, by vehicle class (passenger cars versus commercial vehicles). Actual traffic and toll revenue experience through the end of April 2020 was collected as part of this analysis. Total Turnpike System traffic and revenue losses for March and April 2020 were shown above in Table 3 for the total System. A timeline of key Pennsylvania closure events was presented above in the section **Actual Versus Estimated Traffic and Toll Revenue** that contributed (along with similar closures in states throughout the region) to these unprecedented declines in travel demand. PTC also made the decision to suspend all cash toll collection on the Turnpike System beginning on March 16.

This section will provide a summary of the underlying assumptions CDM Smith has made in estimating the depth and longevity of the COVID-19 related impacts on Turnpike System traffic and toll revenue. Of course, actual relaxing of stay-at-home orders, the opening of businesses, schools, and general social activity is still an unknown. Some relaxing (or partial reopening) is being proposed throughout the month of May, so the process of returning to some level of pre-COVID-19 activity has begun. The speed at which it continues will likely be contingent on the success of these early partial openings.

There were three weeks of steeply declining traffic and revenue on the Turnpike System, beginning with the week of March 8. Steep declines continued through the week of March 22. Volumes losses stabilized at that point and have not declined further through the end of April. Peak daily traffic reductions reached about 70 percent for passenger cars, but only about 30 percent for commercial vehicles. CDM Smith's forecasts assume the peak declines continue at these levels through the first week of May and then begin to slowly moderate such that by the end of September 2020 both passenger and commercial traffic reach levels that are about 10 to 12 percent below normal levels. This assumes a gradual relaxation in the stay at home orders and social distances guidelines over this period, as well as a return to cash toll collection on the Turnpike System by mid-June.

From October 2020 through FY 2025-26, CDM Smith assumes there will be continued residual impacts of COVID-19 on the economy and social behavior. Over this period, the negative impacts of COVID-19 gradually decline from the 10- to 12-percent levels at the end of September 2020 to zero by the end of FY 2025-26.

Table 18 shows the assumed COVID-19 related impacts on estimated traffic and toll revenue over the forecast period. FY 2019-2020 total traffic volumes are reduced by 26.3 million, or about 12.9 percent of total transactions. Toll revenue is reduced by about $157.2 million over the same time period (10.9 percent of total toll revenue). Only three months (March, April, and May) are impacted in FY 2019-20. While the peak daily negative impacts occur in FY 2019-20, the biggest total declines are assumed in FY 2020-21 since this will include 12 months of negative impacts. As shown in Table 18, total transaction losses of 28.0 million are assumed (13.9 percent of total transactions), along with toll revenue losses of $211.0 million (13.4 percent of total toll revenue). After that, negative traffic and toll revenue impacts are estimated to decline over the next five years. By FY 2025-26 total traffic and toll revenue losses are assumed to be only about 0.4 percent and 0.5 percent, respectively. No COVID-19 impact is assumed by FY 2026-27.

Estimated Traffic and Gross Toll Revenue

Updated traffic and gross toll revenue estimates were developed through FY 2049-50 incorporating the following changes into the forecast. All these changes were described in previous sections.

- Actual traffic and revenue experience through April 2020;
- Impacts related to COVID-19 (Table 18);
- Revised estimates of E-ZPass penetration rates (Table 14); and
- Revised toll increase assumptions (Table 13).

Table 18
Estimated Systemwide COVID-19 Impacts on Annual Transactions and Gross Toll Revenue (1)
Pennsylvania Turnpike Commission

Traffic and Toll Revenue in Thousands

Fiscal Year		Annual Traffic			Annual Gross Toll Revenue		
		Passenger Cars	Commercial Vehicles	Total Vehicles	Passenger Cars	Commercial Vehicles	Total Vehicles
		Annual Traffic and Gross Toll Revenue Impacts					
2018-19	(2,3,4)	0	0	0	$0	$0	$0
2019-20	(5,6,7)	(24,801)	(1,515)	(26,316)	(127,363)	(29,866)	(157,229)
2020-21	(8,9,10,11)	(24,627)	(3,330)	(27,956)	(140,070)	(70,976)	(211,046)
2021-22	(11,12,13)	(4,108)	(1,958)	(6,066)	(22,350)	(45,749)	(68,099)
2022-23	(11)	(2,738)	(1,306)	(4,044)	(14,900)	(30,500)	(45,400)
2023-24	(11)	(1,826)	(870)	(2,696)	(9,933)	(20,333)	(30,266)
2024-25	(11)	(1,217)	(580)	(1,797)	(6,622)	(13,555)	(20,178)
2025-26	(11)	(609)	(290)	(899)	(3,311)	(6,778)	(10,089)
2026-27		0	0	0	0	0	0
		Percent Impacts on Annual Traffic and Gross Toll Revenue					
2018-19	(2,3,4)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2019-20	(5,6,7)	(14.3)	(5.0)	(12.9)	(15.9)	(4.7)	(10.9)
2020-21	(8,9,10,11)	(14.4)	(11.1)	(13.9)	(15.8)	(10.3)	(13.4)
2021-22	(11,12,13)	(2.4)	(6.4)	(3.0)	(2.4)	(6.3)	(4.1)
2022-23	(11)	(1.6)	(4.2)	(2.0)	(1.6)	(4.0)	(2.6)
2023-24	(11)	(1.0)	(2.8)	(1.3)	(1.0)	(2.5)	(1.7)
2024-25	(11)	(0.7)	(1.8)	(0.9)	(0.6)	(1.6)	(1.1)
2025-26	(11)	(0.3)	(0.9)	(0.4)	(0.3)	(0.8)	(0.5)
2026-27		0.0	0.0	0.0	0.0	0.0	0.0

(1) Annual toll rate increases are implemented on or about January 1st of each year.
(2) Reflects actual traffic and revenue experience.
(3) The Findlay Connector converted to AET in early June 2018.
(4) The partial I-95 Interchange (Stage 1) opened in September 2018.
(5) AKH and Gateway converted to AET at the end of October 2019.
(6) Reflects actual experience through April 2020.
(7) March 16, 2020 cash collection on Ticket System and PA 43 temporarily suspended.
(8) June 14, 2020 cash collection on Ticket System and PA 43 is assumed to resume.
(9) Reflects Ticket System and PA 43 45% cash surcharge effective on October 1, 2020.
(10) Reflects 6% Systemwide toll increase effective October 1, 2020. No January 2021 toll increase will occur.
(11) Reflects COVID-19 related recessionary impacts through FY 2025-26.
(12) Reflects Ticket System and PA 43 AET conversion effective October 1, 2021.
(13) Reflects opening of Southern Beltway between US 22 and I-79 beginning in January 2022.

Other assumptions remain unchanged from the 2019 Bring Down Letter including:

- Structure of the commercial vehicle discount program; and
- Long-range economic indicators.

Table 19 shows the total traffic and toll revenue for the Ticket System only. Data for FY 2017-18 and FY 2018-19 reflect a full year of actual experience and FY 2019-20 includes 11 months of actual experience (through April 2020). Total toll transactions increase from 152.4 million to 184.7 million over the forecast period, an average annual increase of 0.6 percent. Gross toll revenue increases from $1.0 billion to $4.4 billion by FY 2049-50. This amounts to an average annual increase of 4.6 percent, reflecting the impact of normal growth plus the annual rate adjustments.

The same information is shown for the Barrier System in **Table 20**. Total annual toll transactions are estimated to grow from 48.8 million to 72.7 million over the forecast period, an average rate of 1.3 percent. New toll transactions from the opening of the Southern Beltway in January 2022 contribute to total barrier growth rates. Barrier System total revenue is estimated to increase from $160.7 million to $739.0 million over the forecast period, an annual rate of 4.9 percent, reflecting normal growth plus annual rate adjustments.

Table 21 identifies total combined transactions and gross toll revenue and also factors in estimated toll discounts and adjustments. The vast majority of the discounts and adjustments result from commercial account toll adjustments due to the Turnpike's volume discount program. The volume discount program allows for a 3.0-percent discount to be provided to accounts that accrue $20,000 or more in monthly tolls. Discounts and adjustments shown in Table 21 assume no further changes to the post-paid commercial volume discount program during the forecast period. The result is that the current forecasts have a negative adjustment applied for FY 2017-18; beyond that the adjustment gradually increases until it equals approximately 2.1 percent of the commercial vehicle gross toll revenue in FY 2024-25 and beyond.

As shown in Table 21, total toll transactions are expected to increase from 201.2 million to 257.4 million over the forecast period. This amounts to an average annual growth rate of 0.8 percent. Total net toll revenue is estimated to grow from approximately $1.2 billion in FY 2017-18 to $5.1 billion by FY 2049-50. This reflects an average annual growth rate in gross toll revenue of 4.6 percent. Again, this includes the impact of normal growth plus annual toll rate adjustments.

Table 22 provides a comparison of the current traffic and net toll revenue forecast with the forecast developed as part of the 2019 Bring Down Letter. As shown, the revised total toll transactions are significantly less than those of the 2019 Bring Down Letter through FY 2020-21 due to the effects of the COVID-19 pandemic. As the economic effects of the pandemic begin to fade, the difference between the 2019 Bring Down Letter and current estimates lessen, reaching negative

Table 19
Ticket System: Estimated Annual Transactions and Gross Toll Revenue (1)
Pennsylvania Turnpike Commission

Traffic and Toll Revenue in Thousands

		Annual Traffic			Annual Gross Toll Revenue		
Fiscal Year		Passenger Cars	Commercial Vehicles	Total Vehicles	Passenger Cars	Commercial Vehicles	Total Vehicles
2017-18	(2)	130,805	21,582	152,387	$579,692	$462,754	$1,042,446
2018-19	(2,3)	129,559	22,020	151,579	626,685	524,309	1,150,994
2019-20	(4,5)	109,378	21,032	130,410	564,122	528,490	1,092,612
2020-21	(6,7,8,9)	107,044	19,691	126,735	627,153	541,900	1,169,053
2021-22	(9,10)	121,171	20,756	141,927	761,034	593,587	1,354,622
2022-23	(9)	122,277	21,390	143,668	792,319	639,663	1,431,983
2023-24	(9)	123,742	21,902	145,645	839,010	685,511	1,524,521
2024-25	(9)	125,445	22,334	147,780	890,199	731,218	1,621,418
2025-26	(9)	127,363	22,785	150,148	942,193	776,577	1,718,770
2026-27		129,361	23,232	152,593	989,636	817,628	1,807,265
2027-28		130,866	23,448	154,314	1,031,196	849,635	1,880,831
2028-29		132,340	23,687	156,027	1,070,512	882,321	1,952,833
2029-30		133,773	23,962	157,735	1,111,817	919,196	2,031,013
2030-31		135,145	24,235	159,380	1,156,424	957,571	2,113,995
2031-32		136,490	24,508	160,999	1,203,602	997,408	2,201,010
2032-33		137,821	24,781	162,603	1,252,463	1,038,761	2,291,224
2033-34		139,108	25,054	164,161	1,302,760	1,081,690	2,384,449
2034-35		140,355	25,326	165,681	1,354,593	1,126,264	2,480,858
2035-36		141,568	25,599	167,167	1,408,026	1,172,552	2,580,578
2036-37		142,759	25,867	168,626	1,463,250	1,220,350	2,683,599
2037-38		143,871	26,127	169,998	1,519,699	1,269,584	2,789,283
2038-39		144,945	26,387	171,332	1,577,810	1,320,695	2,898,505
2039-40		146,003	26,648	172,651	1,637,883	1,373,756	3,011,638
2040-41		147,041	26,909	173,950	1,699,918	1,428,850	3,128,768
2041-42		148,054	27,172	175,226	1,763,932	1,486,060	3,249,992
2042-43		149,037	27,435	176,472	1,829,888	1,545,466	3,375,354
2043-44		149,994	27,699	177,693	1,897,913	1,607,160	3,505,074
2044-45		150,928	27,964	178,892	1,968,076	1,671,228	3,639,304
2045-46		151,834	28,231	180,065	2,040,404	1,737,751	3,778,155
2046-47		152,728	28,498	181,227	2,115,132	1,806,835	3,921,967
2047-48		153,611	28,767	182,378	2,192,366	1,878,589	4,070,955
2048-49		154,498	29,038	183,536	2,272,420	1,953,192	4,225,613
2049-50		155,391	29,312	184,703	2,355,398	2,030,758	4,386,156

(1) Annual toll rate increases are implemented on or about January 1st of each year.
(2) Reflects actual traffic and revenue experience.
(3) The partial I-95 Interchange (Stage 1) opened in September 2018.
(4) Reflects actual experience through April 2020.
(5) March 16, 2020 cash collection on Ticket System temporarily suspended.
(6) June 14, 2020 cash collection on Ticket System is assumed to resume.
(7) Reflects Ticket System 45% cash surcharge effective on October 1, 2020.
(8) Reflects 6% Systemwide toll increase effective October 1, 2020. No January 2021 toll increase will occur.
(9) Reflects COVID-19 related recessionary impacts through FY 2025-26.
(10) Reflects Ticket System AET conversion effective October 1, 2021.

Table 20
Barrier Systems: Estimated Annual Transactions and Gross Toll Revenue (1)
Pennsylvania Turnpike Commission

Traffic and Toll Revenue in Thousands

		Annual Traffic			Annual Gross Toll Revenue		
Fiscal Year		Passenger Cars	Commercial Vehicles	Total Vehicles	Passenger Cars	Commercial Vehicles	Total Vehicles
2017-18	(2,3)	41,707	7,068	48,775	$99,048	$61,664	$160,712
2018-19	(2,4,5)	43,870	7,605	51,475	113,893	70,498	184,392
2019-20	(6,7,8)	39,281	7,508	46,789	111,040	75,841	186,882
2020-21	(9,10,11,12)	38,796	6,932	45,728	119,860	74,165	194,025
2021-22	(12,13,14)	45,581	7,696	53,277	142,812	81,322	224,134
2022-23	(12)	49,170	8,548	57,718	153,687	89,975	243,662
2023-24	(12)	50,394	8,868	59,261	163,633	97,006	260,640
2024-25	(12)	51,489	9,129	60,619	174,081	103,916	277,997
2025-26	(12)	52,430	9,346	61,776	184,555	110,704	295,259
2026-27		53,293	9,538	62,831	194,171	116,842	311,013
2027-28		53,788	9,605	63,393	202,499	121,627	324,126
2028-29		54,281	9,683	63,964	210,518	126,450	336,969
2029-30		54,749	9,778	64,527	218,751	131,777	350,527
2030-31		55,182	9,871	65,053	227,192	137,298	364,490
2031-32		55,581	9,964	65,545	235,883	143,025	378,907
2032-33		55,966	10,056	66,021	244,902	148,963	393,865
2033-34		56,331	10,147	66,478	254,242	155,125	409,366
2034-35		56,687	10,238	66,925	263,867	161,500	425,367
2035-36		57,033	10,329	67,362	273,786	168,086	441,872
2036-37		57,370	10,419	67,789	284,019	174,894	458,913
2037-38		57,691	10,508	68,199	294,494	181,919	476,413
2038-39		58,009	10,596	68,605	305,277	189,213	494,490
2039-40		58,326	10,685	69,011	316,426	196,786	513,212
2040-41		58,640	10,773	69,413	327,940	204,647	532,587
2041-42		58,945	10,862	69,807	339,806	212,806	552,612
2042-43		59,241	10,950	70,190	352,020	221,272	573,292
2043-44		59,528	11,037	70,565	364,602	230,058	594,660
2044-45		59,808	11,125	70,933	377,563	239,177	616,740
2045-46		60,078	11,212	71,290	390,907	248,639	639,545
2046-47		60,341	11,299	71,640	404,660	258,458	663,118
2047-48		60,599	11,386	71,985	418,848	268,650	687,498
2048-49		60,857	11,474	72,331	433,534	279,243	712,777
2049-50		61,117	11,562	72,679	448,735	290,255	738,989

(1) Annual toll rate increases are implemented on or about January 1st of each year.
(2) Reflects actual traffic and revenue experience.
(3) The two Northeast Extension Barrier Plazas were converted to AET at the end of April 2018.
(4) The Findlay Connector converted to AET in early June 2018.
(5) The partial I-95 Interchange (Stage 1) opened in September 2018.
(6) AKH and Gateway converted to AET at the end of October 2019.
(7) Reflects actual experience through April 2020.
(8) March 16, 2020 cash collection on PA 43 (Mon-Fayette Expressway) temporarily suspended.
(9) June 14, 2020 cash collection on PA 43 is assumed to resume.
(10) Reflects PA 43 45% cash surcharge effective on October 1, 2020.
(11) Reflects 6% Systemwide toll increase effective October 1, 2020. No January 2021 toll increase will occur.
(12) Reflects COVID-19 related recessionary impacts through FY 2025-26.
(13) Reflects PA 43 (Mon-Fayette Expressway) AET conversion effective October 1, 2021.
(14) Reflects opening of Southern Beltway between US 22 and I-79 beginning in January 2022.

Table 21
Total System: Estimated Annual Transactions and Gross Toll Revenue (1)
Pennsylvania Turnpike Commission

Traffic and Toll Revenue in Thousands

	Annual Traffic			Annual Gross Toll Revenue			Discounts	
Fiscal Year	Passenger Cars	Commercial Vehicles	Total Vehicles	Passenger Cars	Commercial Vehicles	Total Vehicles	and Adjustments	Net Toll Revenue
2017-18 (2,3)	172,512	28,650	201,162	$678,741	$524,418	$1,203,158	$(6,552)	$1,196,606
2018-19 (2,4,5)	173,429	29,625	203,054	740,578	594,808	1,335,385	(8,349)	1,327,037
2019-20 (6,7,8)	148,659	28,540	177,199	675,163	604,331	1,279,494	(9,483)	1,270,011
2020-21 (9,10,11,12)	145,840	26,623	172,463	747,013	616,066	1,363,078	(10,687)	1,352,391
2021-22 (12,13,14)	166,752	28,452	195,203	903,846	674,909	1,578,756	(12,546)	1,566,210
2022-23 (12)	171,447	29,938	201,385	946,006	729,638	1,675,644	(14,243)	1,661,401
2023-24 (12)	174,136	30,770	204,906	1,002,643	782,517	1,785,160	(15,822)	1,769,339
2024-25 (12)	176,935	31,464	208,398	1,064,281	835,134	1,899,415	(17,323)	1,882,092
2025-26 (12)	179,793	32,132	211,925	1,126,749	887,280	2,014,029	(18,405)	1,995,624
2026-27	182,654	32,770	215,424	1,183,807	934,470	2,118,277	(19,384)	2,098,894
2027-28	184,654	33,053	217,707	1,233,695	971,262	2,204,957	(20,147)	2,184,810
2028-29	186,621	33,371	219,991	1,281,030	1,008,771	2,289,801	(20,925)	2,268,876
2029-30	188,521	33,740	222,261	1,330,568	1,050,973	2,381,540	(21,800)	2,359,740
2030-31	190,327	34,106	224,433	1,383,616	1,094,869	2,478,485	(22,711)	2,455,774
2031-32	192,072	34,472	226,544	1,439,484	1,140,433	2,579,917	(23,656)	2,556,261
2032-33	193,787	34,837	228,624	1,497,365	1,187,724	2,685,089	(24,637)	2,660,452
2033-34	195,439	35,201	230,640	1,557,001	1,236,814	2,793,816	(25,655)	2,768,160
2034-35	197,042	35,565	232,607	1,618,460	1,287,764	2,906,224	(26,712)	2,879,512
2035-36	198,600	35,929	234,529	1,681,812	1,340,638	3,022,450	(27,809)	2,994,642
2036-37	200,128	36,287	236,415	1,747,269	1,395,244	3,142,512	(28,941)	3,113,571
2037-38	201,562	36,635	238,197	1,814,192	1,451,503	3,265,696	(30,108)	3,235,587
2038-39	202,954	36,983	239,937	1,883,087	1,509,908	3,392,995	(31,320)	3,361,675
2039-40	204,329	37,333	241,661	1,954,308	1,570,542	3,524,850	(32,578)	3,492,272
2040-41	205,680	37,683	243,363	2,027,858	1,633,497	3,661,355	(33,884)	3,627,471
2041-42	207,000	38,033	245,033	2,103,739	1,698,866	3,802,604	(35,239)	3,767,365
2042-43	208,278	38,384	246,662	2,181,908	1,766,737	3,948,646	(36,647)	3,911,998
2043-44	209,522	38,736	248,259	2,262,515	1,837,218	4,099,734	(38,109)	4,061,624
2044-45	210,735	39,089	249,824	2,345,639	1,910,404	4,256,044	(39,627)	4,216,416
2045-46	211,913	39,443	251,356	2,431,310	1,986,390	4,417,700	(41,204)	4,376,496
2046-47	213,070	39,797	252,867	2,519,792	2,065,293	4,585,085	(42,840)	4,542,245
2047-48	214,210	40,153	254,362	2,611,214	2,147,239	4,758,453	(44,540)	4,713,913
2048-49	215,356	40,512	255,867	2,705,955	2,232,436	4,938,390	(46,307)	4,892,083
2049-50	216,508	40,874	257,382	2,804,133	2,321,013	5,125,146	(48,145)	5,077,001

(1) Annual toll rate increases are implemented on or about January 1st of each year.
(2) Reflects actual traffic and revenue experience.
(3) The two Northeast Extension Barrier Plazas were converted to AET at the end of April 2018.
(4) The Findlay Connector converted to AET in early June 2018.
(5) The partial I-95 Interchange (Stage 1) opened in September 2018.
(6) AKH and Gateway converted to AET at the end of October 2019.
(7) Reflects actual experience through April 2020.
(8) March 16, 2020 cash collection on Ticket System and PA 43 temporarily suspended.
(9) June 14, 2020 cash collection on Ticket System and PA 43 is assumed to resume.
(10) Reflects Ticket System and PA 43 45% cash surcharge effective on October 1, 2020.
(11) Reflects 6% Systemwide toll increase effective October 1, 2020. No January 2021 toll increase will occur.
(12) Reflects COVID-19 related recessionary impacts through FY 2025-26.
(13) Reflects Ticket System and PA 43 AET conversion effective October 1, 2021.
(14) Reflects opening of Southern Beltway between US 22 and I-79 beginning in January 2022.

Table 22
Comparison of New Traffic and Revenue Estimates with those from the 2019 Bring Down Letter
Pennsylvania Turnpike

Traffic and Toll Revenue in Thousands

	Total Annual Transactions			Annual Net Toll Revenue		
Fiscal Year	Current Estimates (1)	2019 Bring Down Letter (2)	Percent Difference	Current Estimates (1)	2019 Bring Down Letter (2)	Percent Difference
2017-18	201,162	201,162	0.0	$1,196,606	$1,196,606	0.0
2018-19	203,054	202,051	0.5	1,327,037	1,306,722	1.6
2019-20	177,199	201,542	(12.1)	1,270,011	1,390,057	(8.6)
2020-21	172,463	201,100	(14.2)	1,352,391	1,473,739	(8.2)
2021-22	195,203	203,711	(4.2)	1,566,210	1,555,172	0.7
2022-23	201,385	208,716	(3.5)	1,661,401	1,647,361	0.9
2023-24	204,906	211,394	(3.1)	1,769,339	1,742,814	1.5
2024-25	208,398	214,001	(2.6)	1,882,092	1,844,500	2.0
2025-26	211,925	216,655	(2.2)	1,995,624	1,946,821	2.5
2026-27	215,424	219,283	(1.8)	2,098,894	2,039,137	2.9
2027-28	217,707	221,593	(1.8)	2,184,810	2,124,036	2.9
2028-29	219,991	223,895	(1.7)	2,268,876	2,206,883	2.8
2029-30	222,261	226,188	(1.7)	2,359,740	2,295,186	2.8
2030-31	224,433	228,424	(1.7)	2,455,774	2,386,729	2.9
2031-32	226,544	230,630	(1.8)	2,556,261	2,482,933	3.0
2032-33	228,624	232,806	(1.8)	2,660,452	2,584,008	3.0
2033-34	230,640	234,916	(1.8)	2,768,160	2,688,432	3.0
2034-35	232,607	236,976	(1.8)	2,879,512	2,796,466	3.0
2035-36	234,529	238,984	(1.9)	2,994,642	2,908,287	3.0
2036-37	236,415	240,948	(1.9)	3,113,571	3,023,823	3.0
2037-38	238,197	242,805	(1.9)	3,235,587	3,142,370	3.0
2038-39	239,937	244,619	(1.9)	3,361,675	3,264,899	3.0
2039-40	241,661	246,403	(1.9)	3,492,272	3,391,799	3.0
2040-41	243,363	248,142	(1.9)	3,627,471	3,523,128	3.0
2041-42	245,033	249,849	(1.9)	3,767,365	3,659,011	3.0
2042-43	246,662	251,513	(1.9)	3,911,998	3,799,505	3.0
2043-44	248,259	253,145	(1.9)	4,061,624	3,944,855	3.0
2044-45	249,824	254,745	(1.9)	4,216,416	4,095,230	3.0
2045-46	251,356	256,309	(1.9)	4,376,496	4,250,751	3.0
2046-47	252,867	257,853	(1.9)	4,542,245	4,411,783	3.0
2047-48	254,362	259,381	(1.9)	4,713,913	4,578,572	3.0
2048-49	255,867	260,919	(1.9)	4,892,083	4,751,678	3.0
2049-50	257,382	N/A	N/A	5,077,001	N/A	N/A

(1) Reflects actual traffic and revenue experience through April 2020.
(2) Reflects actual traffic and revenue experience through February 2019.

1.7 percent by FY 2028-29. Over the remainder of the forecast period, the updated estimates are forecast to grow slightly slower than previously forecast such that by FY 2048-49 we now estimate that total toll transactions will be about 1.9 percent lower than the previous estimates. This longer-term difference is partly a result of slightly higher toll increase assumptions in the current forecast, including the 45-percent cash surcharge on Ticket System and MFE traffic as well as the six-percent Systemwide toll increase in October 2020. The 45-percent increase is new and the six-percent October 2020 increase was previously assumed to be a five-percent increase in January 2020.

Due to the COVID-19 pandemic FY 2019-20 (which includes 11 months of actual data) and FY 2020-21 are each forecast to have approximately eight percent less revenue than previously estimated. Yet, revenue is now forecast to grow faster and despite reduced transactions FY 2021-22 revenue is now estimated to be 0.7 percent higher than previously estimated. Revenue is expected to continue growing faster than previously forecast such that by the end of the prior forecast period in FY 2048-49 revenue is now estimated to be 3.0 percent higher. Unlike with traffic forecasts, new revenue forecasts remain higher than previous forecasts over the entire forecast period. This is because average toll rates for commercial vehicles are now higher than previously assumed. This occurs due to lower E-ZPass market share assumptions for commercial vehicles at recently converted AET facilities over the forecast period. Revenue is also positively impacted as a result of a 45-percent cash surcharge on the Ticket System and MFE and a six-percent toll increase in October 2020.

* * *

Fiduciary Disclaimer

Current accepted professional practices and procedures were used in the development of these updated traffic and revenue forecasts. However, as with any forecast of the future, there may be differences between forecasted and actual results caused by events and circumstances beyond the control of CDM Smith. In formulating its forecasts, CDM Smith has reasonably relied upon the accuracy and completeness of information provided (both written and oral) by the PTC and other local and state agencies. CDM Smith also has relied upon the reasonable assurances of some independent parties and is not aware of any facts that would make such information misleading.

CDM Smith has made qualitative judgments related to several key variables in the development and analysis of the traffic and revenue forecasts that must be considered as a whole; therefore selecting portions of any individual result without consideration of the intent of the whole may create a misleading or incomplete view of the results and the underlying methodologies used to obtain the results. CDM Smith gives no opinion as to the value or merit to partial information extracted from this report.

All forecasts and projections reported herein are based on CDM Smith's experience and judgment and on a review of information obtained from multiple state and local agencies, including the PTC.

These estimates and projections may not be indicative of actual or future values and are therefore subject to substantial uncertainty. Future developments cannot be predicted with certainty and may affect the forecasts or projections expressed in this report, such that CDM Smith does not specifically guarantee or warrant any forecasts or projections contained within this report.

While CDM Smith believes that some of the projections or other forward-looking statements contained within the report are based on reasonable assumptions as of the date in the report, such forward-looking statements involve risks and uncertainties that may cause actual results to differ materially from the results predicted. Therefore, following the date of this report, CDM Smith will take no responsibility or assume any obligation to advise of changes that may affect its assumptions contained within the report, as they pertain to: socioeconomic and demographic forecasts, proposed residential or commercial land use development projects and/or potential improvements to the regional transportation network.

CDM Smith is not, and has not been, a municipal advisor as defined in Federal law (the Dodd Frank Bill) to the PTC and does not owe a fiduciary duty pursuant to Section 15B of the Exchange Act to PTC with respect to the information and material contained in this report. CDM Smith is not recommending and has not recommended any action to PTC. PTC should discuss the information and material contained in this report with any and all internal and external advisors that it deems appropriate before acting on this information.

* * *

Sincerely,

Scott A. Allaire

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April 29, 2019

Mr. Nikolaus Grieshaber
Chief Financial Officer
Pennsylvania Turnpike Commission
700 South Eisenhower Boulevard
Middletown, PA 17057

Subject: Pennsylvania Turnpike Commission 2019 Traffic and Toll Revenue Bring Down Letter

Dear Mr. Grieshaber:

The Pennsylvania Turnpike Commission (PTC or Commission) has asked CDM Smith to prepare this Bring Down Letter (2019 Bring Down Letter) to be used in support of the Commission's ongoing capital improvement program and other funding requirements. This letter provides an update to the *2018 Traffic and Toll Revenue Forecast Study* (2018 Forecast Study), dated April 20, 2018. The 2018 Forecast Study presented traffic and gross toll revenue forecasts from fiscal year (FY) 2016-17 through FY 2047-48. A fiscal year runs from June 1 through May 31. Actual traffic and revenue data were available through February 2018 for the 2018 Forecast Study and through February 2019 for the current 2019 Bring Down Letter.

This 2019 Bring Down Letter presents actual traffic and toll revenue data through February 2019 (12 months of additional data since completion of the 2018 Forecast Study), provides updated traffic and revenue forecasts through FY 2048-49, and compares the new forecasts with those from the 2018 Forecast Study. The updated forecasts reflect the following changes from the 2018 Forecast Study.

- E-ZPass market share estimates over the forecast period were reviewed and updated.
- Actual traffic and toll revenue data were updated to include information through February 2019.
- A review and adjustment of short-term traffic and revenue growth rates was conducted through 2022 based on the most recent actual trends.
- A review and adjustment of longer-term growth rate assumptions (beyond 2022) was conducted. Normally, longer term growth rates from the 2018 Forecast Study would not be adjusted in a Bring Down Letter. But in this case, commercial vehicle growth has been

higher than estimated in the 12 months since the 2018 Forecast Study was conducted. As such, we slightly dampened longer-term growth estimates for commercial vehicles.

- All Electronic Toll (AET) Conversion at AKH and Gateway is now scheduled to occur in October 2019 and those impacts are included in this 2019 Bring Down Letter. There was no scheduled conversion for these two facilities at the time of the 2018 Forecast Study, and were, therefore, not included at that time.
- A review of the major roadway improvements for any changes since completion of the 2018 Forecast Study.

These differences are described in more detail in the following sections.

It is important to note that the intent of this Bring Down Letter is to review and revise, if warranted, the short term forecasts originally developed as part of the 2018 Forecast Study. Any adjustments would be made based on the 12 months of new actual traffic and toll revenue experience since the 2018 Forecast Study. Since this Bring Down Letter does not include a reevaluation of the longer term economic growth forecasts, critical attention was placed on a review of near term growth through calendar year (CY) 2022 only. Growth rates beyond 2022 have been adjusted slightly down from those in the 2018 Forecast Study to compensate for higher than expected recent commercial vehicle growth.

The socioeconomic trends and forecasts for Pennsylvania, the surrounding states, and the United States, which formed the basis for the long-term traffic and toll revenue forecasts are provided in the 2018 Forecast Study. Additional information regarding the Pennsylvania Turnpike (Turnpike), such as historical toll rate increases, sample toll rates, E-ZPass market share, and more, are also provided in the 2018 Forecast Study.

Historical Toll Rate Increases and Current Toll Rates

Table 1 provides a summary of historical toll rate increases on the Turnpike System from 1987 to the most recent increase implemented on January 6, 2019. Rate increases are presented as a percent increase over the prior toll rate for cash and E-ZPass. Note that toll rate increases are generally applied systemwide, although occasional exemptions occur, as indicated in Table 1.

Periodic toll rate increases were implemented on the Turnpike System in 1987, 1991, 2004, and 2009. During the 2000s decade, E-ZPass was phased into the Turnpike System. Until CY 2011, cash and E-ZPass toll rates always increased by the same percent. The toll rate schedule implemented on January 2, 2011 created a differential between cash and E-ZPass, as E-ZPass rates were increased by 3.0 percent and cash toll were increased by 10.0 percent. Rate increases differed between cash and E-ZPass in the ensuing three years (2012, 2013 and 2014) further increasing the differential between cash and E-ZPass toll rates.

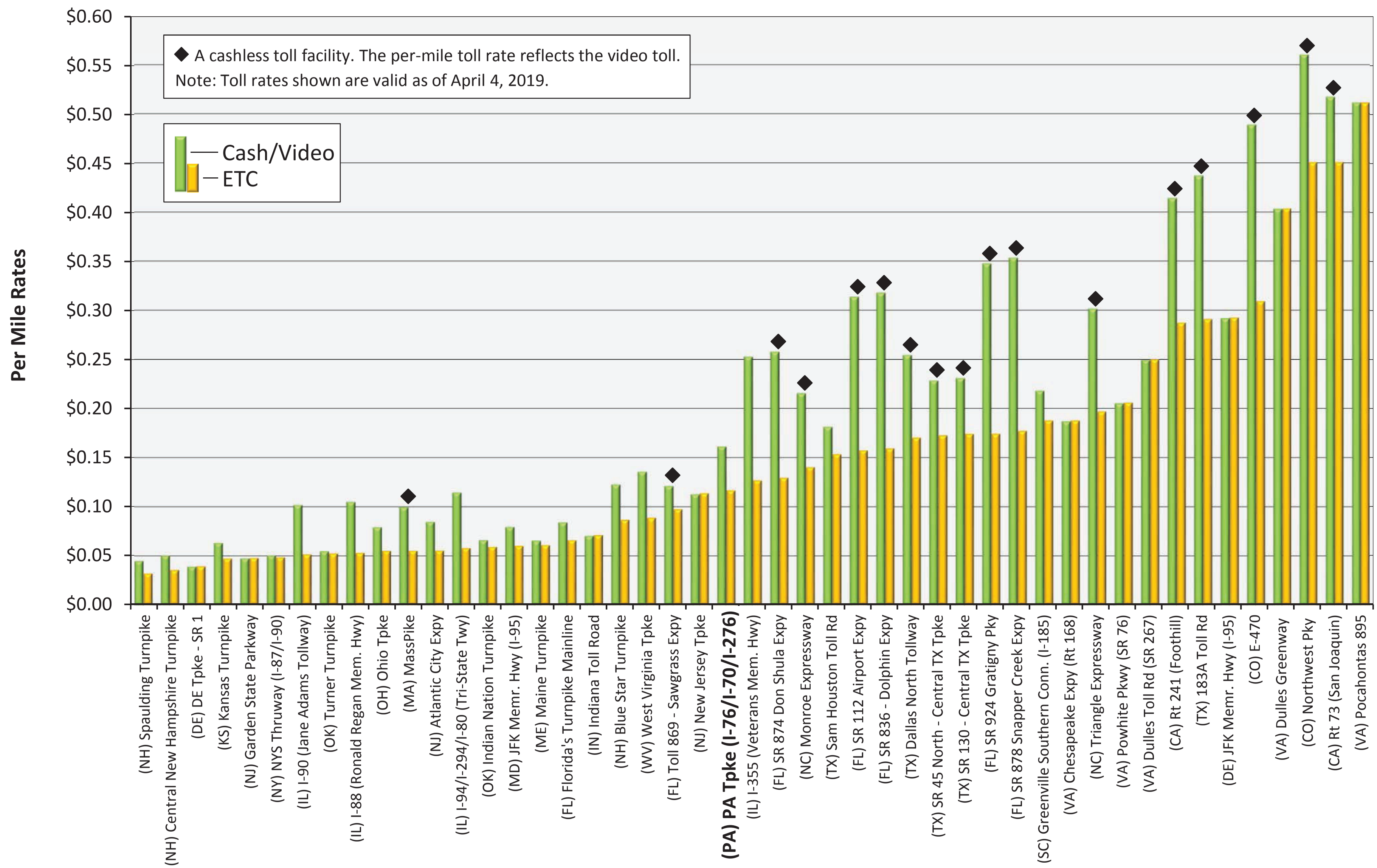
Toll rate increases have occurred annually since 2009, occurring on or close to January 1 of each year. Since CY 2015, the percent toll rate increases have been identical for cash and E-ZPass. In 2015 the toll rates increased by 5.0 percent over the prior year. From 2016 to 2019, toll rates increased by 6.0 percent annually for both cash and E-ZPass. It is assumed that annual toll rate increases will occur through the forecast period, as described in the section **Actual and Assumed Toll Rate Increases** and listed in Table 12.

Table 1
Historical Toll Rate Increases
Pennsylvania Turnpike

	Percent Increase		
Date	Cash	E-ZPass	**Comment**
1/2/1987	40.0	NA	E-ZPass was not yet implemented on the Turnpike
6/1/1991	32.0	NA	E-ZPass was not yet implemented on the Turnpike
8/1/2004	42.5	42.5	
1/4/2009	25.0	25.0	No increase on Turnpike I-576 or Turnpike 43 between Uniontown and Brownsville
1/3/2010	3.0	3.0	No increase on Turnpike I-576
1/2/2011	10.0	3.0	No increase on Turnpike I-576
1/1/2012	10.0	0.0	No increase on Turnpike I-576
1/6/2013	10.0	2.0	
1/5/2014	12.0	2.0	No increase on Turnpike I-576
1/4/2015	5.0	5.0	No increase on Turnpike I-576
1/3/2016	6.0	6.0	No increase on Turnpike I-576
1/8/2017	6.0	6.0	No increase on Turnpike I-576 or Delaware River Bridge
1/7/2018	6.0	6.0	No increase on Turnpike I-576, Delaware River Bridge, or the Northeast Extension barrier facilities
1/6/2019	6.0	6.0	

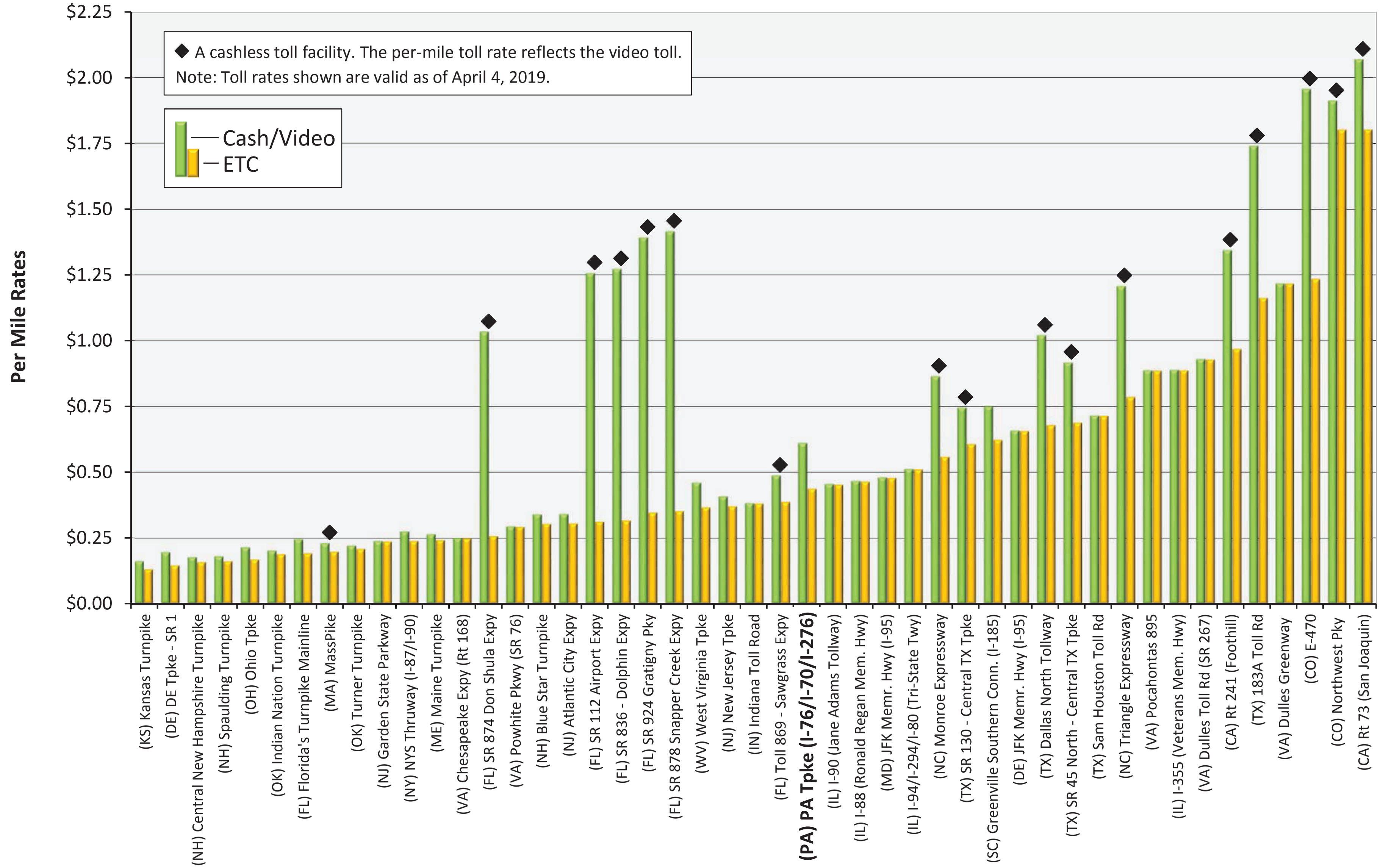
Note: Beginning in 2016, all cash toll rate increases also reflect video toll rate increases.

Figures 1 and 2 show the 2019 per-mile toll rates for a through trip on 43 U.S. toll facilities, for passenger cars and 5-axle commercial vehicles, respectively. Per-mile rates are shown for both cash/video and ETC transactions in each figure. If a facility is all electronic (does not accept cash payments), the video toll rate is shown as the equivalent of a cash toll rate. These facilities are marked with a diamond in the Figures 1 and 2.



COMPARISON OF 2019 PASSENGER CAR PER-MILE THROUGH TRIP TOLL RATES (DATA SORTED BY ETC TOLL RATES)

FIGURE 1



COMPARISON OF 2019 FIVE-AXLE VEHICLE PER-MILE THROUGH TRIP TOLL RATES (DATA SORTED BY ETC TOLL RATES)

FIGURE 2

The per-mile through-trip toll rate is shown for the Pennsylvania Turnpike Mainline, which represents a trip on I-76/I-276 between New Jersey and Ohio. Figure 1 shows that even with the 11 consecutive annual toll increases since 2009, the passenger car per-mile toll rates on the Pennsylvania Turnpike System, at 12 cents per mile for E-ZPass customers and 16 cents per mile for cash customers, are still very reasonably priced compared to other toll facilities in the U.S.

Toll rates for 5-axle commercial vehicles (represented by weight class 6) are equivalent to 44 cents per mile for E-ZPass and 61 cents per mile for cash transactions for a through trip on the Pennsylvania Turnpike Mainline. It should be remembered that the majority of both passenger car and commercial vehicle trips are made using the more cost-effective E-ZPass payment method.

Annual Transaction and Gross Toll Revenue Trends

Table 2 provides a summary of annual Systemwide transactions and gross toll revenue trends from FY 1994-95 through FY 2017-18. The Pennsylvania Turnpike System is a large, mature system that has demonstrated long-term growth in transactions and toll revenue. Between FY 1997-98 and FY 2007-08, Turnpike transactions and gross toll revenue grew by an average annual rate of 2.3 percent and 6.0 percent, respectively. Similarly, in the 10 years from FY 2007-08 to FY 2017-18, Turnpike transactions and gross toll revenue grew by average annual rates of 0.6 percent and 7.2 percent, respectively. Traffic growth in the most recently completed fiscal year (2017-18) was 0.3 percent. Revenue growth in the most recent fiscal year was 7.9 percent, largely due to the 6.0 percent toll increase.

Monthly Transactions and Gross Toll revenue Trends

Tables 3 through 11 present recent monthly transaction and gross toll revenue trends from FY 2015-16 through February 2019 for all PTC facilities. The facilities are summarized in the following order:

- Table 3 - The Total Turnpike System (comprised of all the facilities listed below);
- Table 4 - The Ticket System: comprised of I-76/I-276 (including Gateway Barrier Plaza) and I-476;
- Table 5 - The combined Barrier System: comprised of all facilities listed below;
- Table 6 - Turnpike 43 (Mon/Fayette Expressway);
- Table 7 - Turnpike 66 (Amos K. Hutchinson Bypass);
- Table 8 - Northeast Extension (I-476) Barrier Plazas;

Table 2
Annual Systemwide Traffic and Gross Toll Revenue Trends
Pennsylvania Turnpike System
(in thousands)

	Transactions						Gross Toll Revenue					
Fiscal Year (1)	Cars	Percent Change Over Prior Year	Trucks	Percent Change Over Prior Year	Total	Percent Change Over Prior Year	Cars	Percent Change Over Prior Year	Trucks	Percent Change Over Prior Year	Total	Percent Change Over Prior Year
1994-95	114,033	6.9	15,620	9.5	129,653	7.2	$165,850	4.9	$131,749	7.2	$297,599	5.9
1995-96	121,911	6.9	16,719	7.0	138,630	6.9	172,339	3.9	136,269	3.4	308,608	3.7
1996-97	126,654	3.9	17,479	4.5	144,133	4.0	179,303	4.0	140,837	3.4	320,140	3.7
1997-98	132,472	4.6	18,627	6.6	151,099	4.8	186,290	3.9	149,036	5.8	335,326	4.7
1998-99	136,399	3.0	19,833	6.5	156,232	3.4	191,804	3.0	158,761	6.5	350,565	4.5
1999-00	138,762	1.7	21,341	7.6	160,103	2.5	195,301	1.8	172,035	8.4	367,336	4.8
2000-01	141,033	1.6	21,278	(0.3)	162,311	1.4	193,563	(0.9)	172,337	0.2	365,900	(0.4)
2001-02	150,496	6.7	22,298	4.8	172,794	6.5	212,650	9.9	163,101	(5.4)	375,751	2.7
2002-03	156,220	3.8	23,179	4.0	179,399	3.8	219,201	3.1	168,021	3.0	387,222	3.1
2003-04	163,612	4.7	24,407	5.3	188,019	4.8	228,515	4.2	180,229	7.3	408,744	5.6
2004-05	163,316	(0.2)	25,109	2.9	188,425	0.2	309,032	35.2	236,126	31.0	545,158	33.4
2005-06	160,590	(1.7)	25,311	0.8	185,901	(1.3)	321,268	4.0	267,369	13.2	588,637	8.0
2006-07	160,107	(0.3)	25,316	0.0	185,423	(0.3)	322,781	0.5	269,861	0.9	592,642	0.7
2007-08	164,097	2.5	25,455	0.5	189,552	2.2	327,761	1.5	271,165	0.5	598,926	1.1
2008-09	162,638	(0.9)	23,583	(7.4)	186,220	(1.8)	356,345	8.7	259,259	(4.4)	615,605	2.8
2009-10	163,599	0.6	22,933	(2.8)	186,531	0.2	415,981	16.7	302,057	16.5	718,038	16.6
2010-11	165,231	1.0	23,812	3.8	189,043	1.3	435,752	4.8	328,105	8.6	763,856	6.4
2011-12	164,955	(0.2)	24,125	1.3	189,080	0.0	455,133	4.4	342,646	4.4	797,779	4.4
2012-13	163,690	(0.8)	24,207	0.3	187,897	(0.6)	471,514	3.6	350,226	2.2	821,740	3.0
2013-14	163,788	0.1	24,891	2.8	188,679	0.4	497,671	5.5	368,395	5.2	866,066	5.4
2014-15	166,192	1.5	26,144	5.0	192,336	1.9	533,054	7.1	401,197	8.9	934,251	7.9
2015-16 (2)	171,569	3.2	27,319	4.5	198,887	3.4	588,295	10.4	443,325	10.5	1,031,620	10.4
2016-17 (3,4)	172,799	0.7	27,703	1.4	200,501	0.8	638,787	8.6	476,188	7.4	1,114,975	8.1
2017-18 (5)	172,512	(0.2)	28,650	3.4	201,162	0.3	678,741	6.3	524,418	10.1	1,203,158	7.9

Average Annual Percent Change

	Transactions			Gross Toll Revenue		
Fiscal Year	Cars	Trucks	Total	Cars	Trucks	Total
FY 1997-98 - FY 2007-08	2.2	3.2	2.3	5.8	6.2	6.0
FY 2007-08 - FY 2017-18	0.5	1.2	0.6	7.6	6.8	7.2
FY 1994-95 - FY 2017-18	1.8	2.7	1.9	6.3	6.2	6.3

(1) Refer to Table 1 for toll rate increase information.
(2) The Delaware River Bridge toll plaza was converted from part of the Ticket System to a one-way barrier AET facility in January 2016.
(3) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(4) AET conversion was implemented on Turnpike I-376 Beaver Valley Expressway in May 2017.
(5) AET conversion and vehicle classification changes were implemented on the Northeast Extension Barrier Facilities in April 2018.

Table 3

Total Turnpike System - Monthly Transaction and Gross Toll Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	14,849	3.7	15,395	0.3	15,438	(0.5)	15,361	2,398	6.4	2,550	1.0	2,575	0.9	2,596	17,246	4.1	17,945	0.4	18,013	(0.3)	17,958
July	15,643	0.9	15,783	(1.7)	15,522	0.3	15,566	2,429	(0.4)	2,419	(0.0)	2,419	6.3	2,573	18,072	0.7	18,202	(1.4)	17,942	1.1	18,138
August	15,584	2.5	15,967	(0.1)	15,957	1.1	16,134	2,390	9.5	2,616	1.7	2,662	3.5	2,755	17,974	3.4	18,583	0.2	18,619	1.5	18,889
September	14,220	4.2	14,817	(0.6)	14,724	(1.5)	14,503	2,364	3.3	2,442	(0.4)	2,431	(0.5)	2,418	16,584	4.1	17,260	(0.6)	17,156	(1.4)	16,921
October	15,067	1.1	15,236	(0.1)	15,221	1.2	15,396	2,450	(0.8)	2,429	4.9	2,547	7.3	2,732	17,517	0.8	17,665	0.6	17,768	2.0	18,128
November	13,965	3.5	14,458	(1.0)	14,317	(0.5)	14,242	2,125	5.2	2,236	3.9	2,323	3.0	2,391	16,090	3.8	16,695	(0.3)	16,640	(0.0)	16,633
December	13,960	0.7	14,051	(2.2)	13,746	1.7	13,982	2,116	1.7	2,153	(0.4)	2,146	2.5	2,198	16,076	0.8	16,204	(1.9)	15,891	1.8	16,180
January	12,276	2.7	12,609	(0.5)	12,542	(0.3)	12,504	1,947	3.4	2,014	8.0	2,175	4.3	2,268	14,222	2.8	14,622	0.7	14,718	0.4	14,772
February	12,477	(8.6)	11,407	4.8	11,958	(0.2)	11,930	1,996	(9.0)	1,815	12.0	2,034	1.9	2,073	14,472	(8.6)	13,223	5.8	13,992	0.1	14,003
March	14,328	(6.4)	13,416	1.3	13,591			2,338	(5.2)	2,216	3.5	2,295			16,666	(6.2)	15,632	1.6	15,886		
April	14,105	2.1	14,400	(1.0)	14,259			2,333	(2.8)	2,268	5.2	2,387			16,438	1.4	16,668	(0.1)	16,646		
May	15,095	1.1	15,260	(0.2)	15,237			2,434	4.5	2,542	4.5	2,657			17,529	1.6	17,802	0.5	17,893		
Total Year	171,569	0.7	172,799	(0.2)	172,512			27,319	1.4	27,703	3.4	28,650			198,887	0.8	200,501	0.3	201,162		
June - Feb	128,040	1.3	129,723	(0.2)	129,425	0.1	129,619	20,214	2.3	20,676	3.1	21,312	3.3	22,006	148,254	1.4	150,399	0.2	150,737	0.6	151,624

Gross Toll Revenue (in $1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$50,991	12.3	$57,273	8.0	$61,877	6.5	$65,886	$37,614	13.4	$42,661	4.6	$44,643	11.5	$49,757	$88,606	12.8	$99,935	6.6	$106,521	8.6	$115,643
July	56,625	11.2	62,975	4.4	65,722	5.3	69,178	37,680	8.5	40,876	2.6	41,947	17.0	49,069	94,305	10.1	103,851	3.7	107,669	9.8	118,247
August	56,072	7.3	60,179	7.4	64,611	9.2	70,545	36,983	17.2	43,337	6.6	46,210	13.3	52,369	93,054	11.2	103,516	7.1	110,821	10.9	122,914
September	47,419	15.5	54,770	3.4	56,620	6.6	60,348	36,472	12.4	40,984	3.4	42,371	11.7	47,311	83,891	14.1	95,754	3.4	98,991	8.8	107,658
October	49,331	11.5	55,018	5.1	57,806	6.6	61,611	37,786	5.6	39,895	11.8	44,599	17.0	52,185	87,117	8.9	94,912	7.9	102,405	11.1	113,795
November	47,013	11.5	52,436	5.1	55,122	7.3	59,156	33,096	12.1	37,100	10.4	40,944	15.0	47,087	80,109	11.8	89,536	7.3	96,066	10.6	106,243
December	45,446	11.3	50,563	3.5	52,345	9.6	57,377	33,264	10.9	36,880	5.7	39,000	11.9	43,630	78,709	11.1	87,443	4.5	91,344	10.6	101,007
January	41,103	8.0	44,374	5.3	46,741	9.0	50,969	34,106	7.3	36,597	15.4	42,222	14.3	48,261	75,209	7.7	80,971	9.9	88,964	11.5	99,230
February	40,633	(4.1)	38,957	14.4	44,576	11.8	49,844	35,122	(6.2)	32,933	21.9	40,130	12.4	45,096	75,755	(5.1)	71,890	17.8	84,707	12.1	94,940
March	49,488	(2.9)	48,033	11.9	53,737			40,322	0.7	40,619	12.3	45,627			89,811	(1.3)	88,653	12.1	99,364		
April	49,275	13.0	55,683	2.7	57,201			39,950	1.5	40,540	13.6	46,057			89,224	7.8	96,223	7.3	103,259		
May	54,899	6.6	58,526	6.6	62,381			40,930	6.9	43,767	15.8	50,666			95,829	6.7	102,293	10.5	113,047		
Total Year	$588,295	8.6	$638,787	6.3	$678,741			$443,325	7.4	$476,188	10.1	$524,418			$1,031,620	8.1	$1,114,975	7.9	$1,203,158		
June - Feb	$434,633	9.6	$476,545	6.1	$505,421	7.8	$544,914	$322,123	9.0	$351,263	8.8	$382,067	13.8	$434,764	$756,756	9.4	$827,807	7.2	$887,488	10.4	$979,678

NOTES:

(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.

(2) The Delaware River Bridge toll plaza was converted from part of the Ticket System to a one-way barrier AET facility in January 2016.

(3) Leap year occurred in 2016, resulting in negative traffic and toll revenue impacts in February 2017 compared to February 2016.

(4) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.

(5) AET conversion was implemented on Turnpike I-376 Beaver Valley Expressway in May 2017.

(6) AET conversion and vehicle classification changes were implemented on the Northeast Extension Barrier Facilities in April 2018.

(7) AET conversion and vehicle classification changes were implemented on the Turnpike I-576 Findlay Connector in June 2018.

Table 4

Ticket System (Including Gateway Barrier Plaza) - Monthly Transaction and Gross Toll Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

Month	Passenger Cars							Commercial Vehicles							Total Vehicles						
	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	11,995	0.1	12,013	0.1	12,029	(1.0)	11,904	1,976	2.6	2,028	(0.1)	2,025	0.1	2,027	13,971	0.5	14,041	0.1	14,054	(0.9)	13,931
July	12,583	(3.1)	12,196	(1.4)	12,020	(0.6)	11,954	1,998	(3.5)	1,927	(1.5)	1,898	5.3	2,000	14,581	(3.1)	14,123	(1.4)	13,919	0.3	13,954
August	12,525	(1.4)	12,348	0.1	12,357	0.1	12,367	1,951	6.7	2,082	0.1	2,084	2.3	2,133	14,476	(0.3)	14,430	0.1	14,441	0.4	14,500
September	11,362	1.0	11,480	(0.8)	11,386	(2.3)	11,119	1,925	0.8	1,941	(2.0)	1,903	(1.6)	1,872	13,287	1.0	13,421	(1.0)	13,289	(2.2)	12,992
October	12,064	(1.9)	11,836	(0.1)	11,826	(0.5)	11,762	1,997	(3.4)	1,930	3.6	2,000	5.8	2,115	14,061	(2.1)	13,766	0.4	13,826	0.4	13,877
November	11,281	0.2	11,301	(1.0)	11,185	(2.5)	10,900	1,748	1.6	1,777	3.3	1,835	1.7	1,866	13,029	0.4	13,078	(0.4)	13,019	(1.9)	12,766
December	11,302	(2.6)	11,005	(2.5)	10,725	0.0	10,726	1,763	(1.7)	1,732	(1.1)	1,713	0.8	1,727	13,065	(2.5)	12,738	(2.3)	12,439	0.1	12,452
January	9,605	4.4	10,033	(1.8)	9,851	(2.1)	9,643	1,552	5.8	1,642	5.8	1,738	2.5	1,780	11,158	4.6	11,675	(0.7)	11,588	(1.4)	11,423
February	9,738	(5.3)	9,226	1.2	9,339	(2.4)	9,116	1,606	(5.8)	1,514	6.6	1,614	0.6	1,623	11,345	(5.3)	10,740	2.0	10,953	(2.0)	10,739
March	11,168	(5.2)	10,589	(0.4)	10,544			1,869	(3.9)	1,796	1.2	1,817			13,037	(5.0)	12,384	(0.2)	12,361		
April	10,953	2.7	11,247	(1.4)	11,090			1,858	(2.8)	1,807	4.0	1,879			12,812	1.9	13,054	(0.6)	12,970		
May	11,717	1.2	11,855	(0.7)	11,775			1,927	3.9	2,003	3.4	2,070			13,644	1.6	13,858	(0.1)	13,845		
Total Year	136,294	(0.9)	135,128	(0.7)	134,127			22,172	0.0	22,179	1.8	22,577			158,466	(0.7)	157,307	(0.4)	156,704		
June - Feb	102,456	(1.0)	101,437	(0.7)	100,717	(1.2)	99,490	16,517	0.3	16,573	1.4	16,811	2.0	17,144	118,973	(0.8)	118,010	(0.4)	117,528	(0.8)	116,634

Gross Toll Revenue (in $1,000s)

Month	Passenger Cars							Commercial Vehicles							Total Vehicles						
	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$47,358	6.4	$50,374	8.9	$54,875	6.4	$58,373	$36,014	8.7	$39,137	4.7	$40,969	11.6	$45,711	$83,371	7.4	$89,511	7.1	$95,844	8.6	$104,084
July	52,753	5.5	55,659	5.0	58,459	5.0	61,355	36,048	4.1	37,543	2.5	38,493	17.1	45,081	88,801	5.0	93,201	4.0	96,952	9.8	106,435
August	52,191	1.3	52,888	8.1	57,199	9.0	62,362	35,345	12.5	39,776	6.6	42,397	13.4	48,064	87,536	5.9	92,665	7.5	99,596	10.9	110,425
September	43,823	9.6	48,028	3.7	49,807	6.4	52,979	34,839	7.8	37,555	3.4	38,829	12.0	43,495	78,662	8.8	85,583	3.6	88,636	8.8	96,474
October	45,567	5.9	48,264	5.5	50,936	5.3	53,651	36,072	1.3	36,541	12.0	40,913	16.8	47,768	81,639	3.9	84,805	8.3	91,850	10.4	101,419
November	43,632	5.6	46,084	5.9	48,799	5.8	51,617	31,665	7.0	33,896	10.8	37,560	15.0	43,205	75,297	6.2	79,980	8.0	86,360	9.8	94,822
December	42,110	5.4	44,375	3.9	46,096	8.3	49,909	31,906	6.0	33,828	6.0	35,866	11.6	40,028	74,016	5.7	78,203	4.8	81,962	9.7	89,938
January	35,973	9.8	39,489	4.0	41,070	7.2	44,033	31,378	9.0	34,189	14.2	39,045	13.5	44,332	67,351	9.4	73,678	8.7	80,116	10.3	88,365
February	35,190	2.0	35,898	9.1	39,149	10.0	43,056	32,343	(2.2)	31,628	17.3	37,084	11.8	41,467	67,533	(0.0)	67,526	12.9	76,233	10.9	84,523
March	43,273	(0.9)	42,900	10.5	47,415			37,096	2.3	37,948	11.2	42,183			80,369	0.6	80,848	10.8	89,598		
April	42,999	14.5	49,234	2.5	50,489			36,662	1.8	37,308	13.8	42,474			79,661	8.6	86,542	7.4	92,963		
May	48,163	7.4	51,721	6.5	55,089			37,552	6.9	40,145	16.0	46,562			85,715	7.2	91,866	10.7	101,651		
Total Year	$533,031	6.0	$564,915	6.1	$599,384			$416,919	5.4	$439,495	9.8	$482,376			$949,950	5.7	$1,004,410	7.7	$1,081,760		
June - Feb	$398,596	5.6	$421,060	6.0	$446,391	6.9	$477,334	$305,610	6.0	$324,093	8.4	$351,157	13.7	$399,151	$704,206	5.8	$745,154	7.0	$797,547	9.9	$876,485

NOTES:
(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.
(2) Leap year occurred in 2016, resulting in negative traffic and toll revenue impacts in February 2017 compared to February 2016.
(3) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.

Table 5

Combined Barrier Facilities - Monthly Transaction and Gross Toll Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	2,854	18.5	3,382	0.8	3,409	1.4	3,457	421	23.9	522	5.2	549	3.6	569	3,275	19.2	3,904	1.4	3,958	1.7	4,026
July	3,060	17.2	3,587	(2.4)	3,502	3.1	3,612	431	14.1	492	5.9	521	10.0	573	3,491	16.9	4,079	(1.4)	4,023	4.0	4,185
August	3,059	18.3	3,619	(0.5)	3,600	4.6	3,767	439	21.7	534	8.1	578	7.7	622	3,498	18.7	4,154	0.6	4,178	5.1	4,389
September	2,858	16.8	3,337	0.0	3,338	1.4	3,384	439	14.1	501	5.5	529	3.2	546	3,297	16.4	3,839	0.7	3,867	1.6	3,930
October	3,004	13.2	3,399	(0.1)	3,395	7.0	3,634	452	10.4	500	9.5	547	12.7	617	3,456	12.8	3,899	1.1	3,942	7.8	4,251
November	2,684	17.7	3,158	(0.8)	3,133	6.7	3,343	377	21.9	459	6.2	488	7.6	525	3,060	18.2	3,617	0.1	3,620	6.8	3,867
December	2,658	14.6	3,046	(0.8)	3,021	7.8	3,257	353	19.1	421	2.7	432	9.1	471	3,011	15.1	3,467	(0.4)	3,453	8.0	3,728
January	2,670	(3.5)	2,576	4.5	2,692	6.3	2,861	394	(5.7)	372	17.7	438	11.5	488	3,065	(3.8)	2,948	6.2	3,129	7.0	3,349
February	2,738	(20.3)	2,181	20.1	2,619	7.5	2,814	389	(22.5)	302	39.2	420	7.3	450	3,127	(20.6)	2,483	22.4	3,039	7.4	3,264
March	3,160	(10.5)	2,827	7.8	3,047			468	(10.3)	420	13.7	478			3,629	(10.5)	3,247	8.5	3,525		
April	3,152	0.0	3,152	0.5	3,169			475	(2.8)	462	10.0	508			3,627	(0.4)	3,614	1.7	3,677		
May	3,378	0.8	3,405	1.7	3,462			507	6.5	539	8.7	586			3,885	1.5	3,945	2.6	4,048		
Total Year	35,274	6.8	37,671	1.9	38,385			5,147	7.3	5,524	9.9	6,073			40,422	6.9	43,195	2.9	44,459		
June - Feb	25,584	10.6	28,286	1.5	28,708	4.9	30,129	3,697	11.0	4,103	9.7	4,501	8.0	4,861	29,281	10.6	32,389	2.5	33,209	5.4	34,990

Gross Toll Revenue (in $1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$3,633	89.9	$6,899	1.5	$7,002	7.3	$7,514	$1,601	120.1	$3,524	4.3	$3,674	10.1	$4,046	$5,234	99.1	$10,423	2.4	$10,677	8.3	$11,559
July	3,873	88.9	7,316	(0.7)	7,263	7.7	7,823	1,631	104.3	3,333	3.6	3,454	15.5	3,988	5,504	93.5	10,649	0.6	10,717	10.2	11,812
August	3,881	87.9	7,291	1.7	7,413	10.4	8,183	1,638	117.4	3,561	7.1	3,813	12.9	4,305	5,518	96.6	10,851	3.4	11,226	11.3	12,488
September	3,596	87.5	6,741	1.1	6,813	8.2	7,369	1,634	109.9	3,429	3.3	3,543	7.7	3,816	5,229	94.5	10,171	1.8	10,355	8.0	11,184
October	3,764	79.4	6,754	1.7	6,870	15.9	7,960	1,714	95.6	3,353	9.9	3,686	19.8	4,416	5,478	84.5	10,107	4.4	10,556	17.2	12,377
November	3,381	87.9	6,352	(0.5)	6,323	19.2	7,539	1,432	123.8	3,204	5.6	3,384	14.7	3,882	4,812	98.6	9,556	1.6	9,706	17.7	11,421
December	3,336	85.5	6,187	1.0	6,249	19.5	7,468	1,357	124.9	3,053	2.7	3,133	14.9	3,602	4,693	96.9	9,240	1.5	9,382	18.0	11,070
January	5,130	(4.8)	4,885	16.1	5,671	22.3	6,935	2,728	(11.7)	2,408	32.0	3,177	23.7	3,929	7,858	(7.2)	7,293	21.3	8,848	22.8	10,864
February	5,443	(43.8)	3,059	77.4	5,428	25.1	6,789	2,779	(53.1)	1,305	133.5	3,046	19.1	3,629	8,222	(46.9)	4,364	94.2	8,474	22.9	10,417
March	6,215	(17.4)	5,133	23.2	6,322			3,227	(17.2)	2,671	28.9	3,444			9,442	(17.3)	7,804	25.1	9,766		
April	6,276	2.8	6,449	4.1	6,712			3,288	(1.7)	3,232	10.9	3,583			9,563	1.2	9,680	6.4	10,295		
May	6,736	1.0	6,806	7.1	7,292			3,378	7.2	3,622	13.3	4,104			10,114	3.1	10,427	9.3	11,397		
Total Year	$55,263	33.7	$73,872	7.4	$79,357			$26,406	39.0	$36,694	14.6	$42,042			$81,670	35.4	$110,566	9.8	$121,399		
June - Feb	$36,037	54.0	$55,484	6.4	$59,030	14.5	$67,580	$16,514	64.5	$27,169	13.8	$30,911	15.2	$35,613	$52,550	57.3	$82,654	8.8	$89,941	14.7	$103,193

NOTES:
(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.
(2) Leap year occurred in 2016, resulting in negative traffic and toll revenue impacts in February 2017 compared to February 2016.
(3) The Delaware River Bridge toll plaza was converted from part of the Ticket System to a one-way barrier AET facility in January 2016.
(4) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(5) AET conversion was implemented on Turnpike I-376 Beaver Valley Expressway in May 2017.
(6) AET conversion and vehicle classification changes were implemented on the Northeast Extension Barrier Facilities in April 2018.
(7) AET conversion and vehicle classification changes were implemented on the Turnpike I-576 Findlay Connector in June 2018.

Table 6

Turnpike 43 - Mon/Fayette Expressway - Monthly Transaction and Gross Toll Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

Passenger Cars

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	1,098	(1.4)	1,083	(1.0)	1,072	0.7	1,079
July	1,141	(2.6)	1,112	(3.9)	1,068	4.7	1,118
August	1,151	(0.9)	1,141	(2.2)	1,116	3.0	1,149
September	1,147	(3.5)	1,107	(2.8)	1,076	0.4	1,080
October	1,221	(7.1)	1,134	(1.6)	1,116	4.1	1,162
November	1,058	(4.3)	1,013	(3.2)	980	4.8	1,027
December	1,043	(5.6)	984	(3.3)	952	1.6	967
January	887	1.7	902	(2.8)	876	0.4	880
February	932	(4.3)	892	(2.4)	870	1.5	884
March	1,061	(3.1)	1,028	(3.2)	995		
April	1,050	(2.0)	1,029	(0.3)	1,026		
May	1,088	(0.3)	1,085	1.2	1,098		
Total Year	12,876	(2.9)	12,508	(2.1)	12,244		
June - Feb	9,677	(3.2)	9,366	(2.6)	9,126	2.4	9,345

Commercial Vehicles

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	98	(2.9)	95	2.4	97	(0.1)	97
July	99	(12.9)	86	8.9	94	6.2	99
August	110	(13.2)	95	12.8	107	(5.6)	101
September	119	(25.0)	89	9.1	97	(2.5)	95
October	107	(16.9)	89	15.6	103	5.6	108
November	86	(9.0)	78	9.5	86	5.9	91
December	75	(3.5)	73	(1.8)	71	4.6	75
January	67	(5.4)	63	12.2	71	10.1	78
February	63	3.7	65	9.6	71	0.9	72
March	86	(8.8)	78	(0.4)	78		
April	83	(1.0)	82	6.9	88		
May	90	9.3	98	8.1	106		
Total Year	1,082	(8.3)	992	7.8	1,070		
June - Feb	823	(10.9)	734	8.7	798	2.4	817

Total Vehicles

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	1,196	(1.5)	1,178	(0.8)	1,169	0.6	1,176
July	1,240	(3.4)	1,198	(3.0)	1,161	4.8	1,217
August	1,261	(2.0)	1,236	(1.0)	1,223	2.3	1,251
September	1,266	(5.5)	1,196	(1.9)	1,173	0.2	1,175
October	1,327	(7.9)	1,223	(0.3)	1,219	4.2	1,270
November	1,145	(4.7)	1,091	(2.3)	1,066	4.9	1,118
December	1,118	(5.5)	1,057	(3.2)	1,023	1.8	1,042
January	953	1.2	965	(1.9)	947	1.1	957
February	995	(3.8)	957	(1.6)	942	1.5	956
March	1,147	(3.5)	1,106	(3.0)	1,073		
April	1,133	(1.9)	1,111	0.2	1,113		
May	1,178	0.4	1,183	1.7	1,204		
Total Year	13,958	(3.3)	13,500	(1.4)	13,313		
June - Feb	10,500	(3.8)	10,099	(1.7)	9,923	2.4	10,162

Gross Toll Revenue (in $1,000s)

Passenger Cars

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$1,524	4.7	$1,597	3.9	$1,659	6.8	$1,772
July	1,577	2.8	1,621	3.1	1,671	12.4	1,877
August	1,596	5.2	1,678	2.6	1,722	10.6	1,904
September	1,541	4.3	1,606	2.2	1,642	7.8	1,769
October	1,632	1.4	1,654	3.5	1,711	10.9	1,898
November	1,445	(0.1)	1,443	3.7	1,496	12.6	1,684
December	1,375	3.2	1,419	1.9	1,446	12.4	1,625
January	1,264	6.6	1,348	3.8	1,399	10.2	1,542
February	1,371	(1.7)	1,348	4.1	1,403	10.4	1,548
March	1,523	2.9	1,568	2.2	1,602		
April	1,500	4.5	1,568	6.6	1,672		
May	1,586	5.0	1,666	7.9	1,798		
Total Year	$17,934	3.2	$18,516	3.8	$19,222		
June - Feb	$13,325	2.9	$13,714	3.2	$14,149	10.4	$15,621

Commercial Vehicles

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$374	1.6	$380	12.2	$426	8.5	$462
July	375	(7.8)	346	15.9	400	17.8	471
August	405	(6.0)	380	20.0	457	4.6	478
September	425	(14.4)	364	14.9	418	6.9	447
October	397	(8.8)	363	20.5	437	16.3	508
November	326	(1.7)	321	16.1	373	16.0	432
December	293	2.5	301	5.0	316	18.3	374
January	279	(1.0)	277	19.6	331	22.1	404
February	272	6.2	289	18.5	343	10.4	378
March	348	1.0	351	8.2	380		
April	334	8.1	362	16.3	421		
May	362	18.2	428	16.6	499		
Total Year	$4,192	(0.7)	$4,161	15.4	$4,800		
June - Feb	$3,147	(4.1)	$3,020	15.9	$3,500	13.0	$3,954

Total Vehicles

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$1,898	4.1	$1,976	5.5	$2,085	7.1	$2,234
July	1,952	0.8	1,966	5.3	2,071	13.4	2,349
August	2,000	2.9	2,058	5.9	2,179	9.3	2,382
September	1,966	0.2	1,970	4.5	2,060	7.6	2,216
October	2,029	(0.6)	2,017	6.5	2,148	12.0	2,406
November	1,772	(0.4)	1,764	5.9	1,869	13.3	2,116
December	1,668	3.1	1,719	2.5	1,762	13.5	1,999
January	1,543	5.3	1,624	6.5	1,730	12.5	1,946
February	1,643	(0.4)	1,637	6.6	1,746	10.4	1,926
March	1,871	2.6	1,919	3.3	1,982		
April	1,834	5.2	1,930	8.4	2,093		
May	1,948	7.5	2,094	9.7	2,298		
Total Year	$22,126	2.5	$22,677	5.9	$24,021		
June - Feb	$16,472	1.6	$16,734	5.5	$17,649	10.9	$19,575

NOTES:
(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.
(2) Leap year occurred in 2016, resulting in negative traffic and toll revenue impacts in February 2017 compared to February 2016.

Table 7

Turnpike 66 - Amos K. Hutchinson Bypass - Monthly Transaction and Gross Toll Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

Passenger Cars

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	579	(2.7)	563	0.7	567	(1.9)	556
July	591	(5.3)	560	(1.3)	553	1.1	559
August	587	(2.5)	572	1.0	578	0.8	583
September	571	(2.0)	560	(0.4)	558	(0.5)	555
October	600	(3.9)	577	(0.4)	575	1.0	580
November	550	(1.4)	542	(0.9)	537	(1.2)	531
December	564	(4.3)	540	(2.1)	529	0.7	533
January	480	1.3	487	(1.0)	482	(1.4)	475
February	489	(4.5)	467	(1.4)	460	0.1	461
March	554	(3.0)	537	(0.8)	533		
April	549	(0.2)	548	(2.1)	536		
May	575	0.3	577	0.3	579		
Total Year	6,690	(2.4)	6,530	(0.7)	6,486		
June - Feb	5,012	(2.9)	4,868	(0.6)	4,838	(0.1)	4,833

Commercial Vehicles

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	95	(2.4)	93	7.4	100	1.0	101
July	98	(10.4)	88	7.1	94	7.2	101
August	97	(0.0)	96	8.1	104	3.6	108
September	93	0.8	94	0.9	95	(2.5)	92
October	104	(11.5)	92	5.9	98	8.1	105
November	86	(7.0)	80	5.4	84	2.4	86
December	82	(14.6)	70	5.6	74	7.8	80
January	72	(5.1)	69	12.1	77	5.7	81
February	70	(5.1)	67	6.7	71	5.6	75
March	84	(2.4)	82	1.9	84		
April	89	(0.9)	88	2.1	90		
May	94	5.3	99	2.8	101		
Total Year	1,063	(4.4)	1,016	5.3	1,071		
June - Feb	796	(6.1)	747	6.4	796	4.2	829

Total Vehicles

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	674	(2.7)	656	1.6	667	(1.5)	657
July	689	(6.0)	648	(0.2)	647	2.0	660
August	684	(2.2)	669	2.0	682	1.2	691
September	665	(1.6)	654	(0.2)	653	(0.8)	648
October	705	(5.1)	669	0.5	672	2.0	686
November	635	(2.2)	621	(0.1)	621	(0.7)	617
December	646	(5.6)	610	(1.2)	603	1.6	612
January	552	0.5	555	0.6	558	(0.4)	556
February	559	(4.6)	533	(0.4)	531	0.8	536
March	639	(2.9)	620	(0.5)	617		
April	637	(0.3)	636	(1.5)	626		
May	669	1.0	676	0.7	680		
Total Year	7,753	(2.7)	7,546	0.1	7,556		
June - Feb	5,809	(3.3)	5,615	0.3	5,633	0.5	5,661

Gross Toll Revenue (in $1,000s)

Passenger Cars

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$868	2.4	$889	7.0	$951	4.6	$995
July	893	0.1	894	4.8	938	7.1	1,004
August	889	1.5	902	6.9	964	7.4	1,036
September	855	3.4	883	5.4	931	6.4	991
October	895	1.9	912	5.2	960	6.5	1,023
November	811	4.4	847	5.3	892	4.8	934
December	832	1.6	845	4.1	879	7.0	941
January	747	5.4	787	5.3	829	7.1	888
February	766	0.1	767	4.9	804	8.3	871
March	866	2.1	884	5.8	935		
April	848	7.6	913	3.6	946		
May	912	5.6	962	6.4	1,024		
Total Year	$10,182	3.0	$10,486	5.4	$11,054		
June - Feb	$7,556	2.3	$7,726	5.5	$8,148	6.6	$8,683

Commercial Vehicles

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$401	(0.3)	$400	13.1	$452	11.4	$504
July	409	(6.1)	384	11.0	426	15.9	494
August	400	7.2	429	10.1	473	9.6	518
September	387	8.3	419	3.5	434	3.1	447
October	442	(8.2)	405	9.8	445	16.4	518
November	358	(4.8)	341	14.1	389	6.4	414
December	342	(11.2)	304	12.3	341	15.0	392
January	329	(3.5)	317	17.6	373	12.6	420
February	314	(0.1)	314	12.7	354	10.9	392
March	378	3.0	389	6.5	414		
April	396	2.8	407	9.5	446		
May	413	8.2	447	10.4	493		
Total Year	$4,569	(0.3)	$4,556	10.6	$5,041		
June - Feb	$3,382	(2.0)	$3,313	11.3	$3,687	11.2	$4,101

Total Vehicles

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$1,269	1.5	$1,289	8.9	$1,403	6.8	$1,499
July	1,302	(1.8)	1,278	6.7	1,364	9.8	1,498
August	1,289	3.3	1,331	7.9	1,437	8.2	1,554
September	1,241	4.9	1,302	4.8	1,364	5.4	1,438
October	1,336	(1.4)	1,318	6.7	1,405	9.7	1,541
November	1,170	1.6	1,188	7.9	1,281	5.3	1,349
December	1,174	(2.2)	1,149	6.2	1,220	9.3	1,334
January	1,075	2.7	1,104	8.9	1,202	8.8	1,308
February	1,081	0.0	1,081	7.2	1,158	9.1	1,264
March	1,243	2.4	1,273	6.1	1,350		
April	1,244	6.1	1,320	5.4	1,392		
May	1,325	6.4	1,409	7.7	1,518		
Total Year	$14,750	2.0	$15,042	7.0	$16,095		
June - Feb	$10,938	0.9	$11,040	7.2	$11,835	8.0	$12,784

NOTES:

(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.

(2) Leap year occurred in 2016, resulting in negative traffic and toll revenue impacts in February 2017 compared to February 2016.

Table 8

Northeast Extension Barrier Plazas - Monthly Transaction and Gross Toll Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

Passenger Cars

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	448	(6.9)	417	0.7	420	(0.7)	417
July	554	(6.4)	519	(4.8)	494	(1.2)	488
August	562	(10.6)	502	(4.2)	481	10.3	530
September	427	(7.3)	396	(1.6)	390	(0.1)	389
October	452	(11.9)	398	(4.6)	380	4.4	397
November	406	(7.4)	376	(3.3)	364	1.0	367
December	369	(10.9)	329	(1.6)	323	2.3	331
January	288	(3.9)	277	(6.9)	258	(0.2)	257
February	286	(6.8)	267	(4.0)	256	2.3	262
March	351	(15.4)	297	2.9	305		
April	361	4.2	376	(10.2)	338		
May	433	5.0	454	(11.9)	400		
Total Year	4,937	(6.7)	4,608	(4.3)	4,409		
June - Feb	3,792	(8.2)	3,480	(3.3)	3,365	2.2	3,439

Commercial Vehicles

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	100	0.4	101	3.3	104	3.5	108
July	102	(2.3)	100	0.9	101	8.6	109
August	102	3.8	106	0.8	107	13.0	121
September	97	0.4	97	(1.4)	96	4.8	100
October	101	(8.2)	93	3.8	97	14.8	111
November	86	3.7	89	1.3	91	6.0	96
December	83	(0.5)	83	(0.0)	83	4.9	87
January	77	5.6	81	7.9	88	3.5	91
February	76	1.2	77	4.8	80	2.0	82
March	86	1.0	87	1.5	89		
April	89	0.3	90	1.3	91		
May	99	14.1	113	(5.3)	107		
Total Year	1,100	1.5	1,117	1.4	1,132		
June - Feb	825	0.2	827	2.2	846	7.0	905

Total Vehicles

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	548	(5.5)	518	1.2	524	0.1	525
July	657	(5.8)	619	(3.8)	595	0.5	598
August	664	(8.4)	608	(3.4)	588	10.8	651
September	524	(5.9)	493	(1.6)	486	0.9	490
October	553	(11.2)	491	(3.0)	476	6.5	507
November	492	(5.5)	466	(2.4)	454	2.0	463
December	452	(9.0)	411	(1.3)	406	2.8	417
January	365	(1.9)	358	(3.5)	345	0.8	348
February	362	(5.1)	344	(2.0)	337	2.2	344
March	438	(12.2)	384	2.6	394		
April	451	3.4	466	(8.0)	429		
May	531	6.7	567	(10.6)	507		
Total Year	6,037	(5.2)	5,724	(3.2)	5,540		
June - Feb	4,617	(6.7)	4,307	(2.2)	4,211	3.1	4,343

Gross Toll Revenue (in $1,000s)

Passenger Cars

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$403	(2.8)	$392	5.5	$413	9.4	$452
July	500	(1.1)	494	1.2	500	4.7	524
August	509	(6.4)	477	0.5	479	21.7	583
September	380	(2.9)	370	3.8	384	13.4	435
October	400	(12.4)	351	6.0	371	14.1	424
November	357	2.7	366	(3.7)	353	11.1	392
December	358	(19.8)	287	8.8	312	9.4	342
January	262	5.6	276	(9.8)	249	21.1	302
February	280	(7.1)	260	(4.7)	248	23.5	306
March	326	(11.3)	290	2.7	297		
April	337	10.9	374	(10.0)	336		
May	408	11.0	452	(6.6)	422		
Total Year	$4,520	(2.9)	$4,388	(0.5)	$4,366		
June - Feb	$3,448	(5.1)	$3,272	1.1	$3,310	13.6	$3,759

Commercial Vehicles

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$439	8.6	$477	6.3	$506	19.7	$607
July	436	5.9	462	4.8	484	22.9	595
August	438	13.2	495	4.1	516	29.2	666
September	422	8.3	457	1.1	462	22.3	566
October	445	(3.3)	430	10.6	476	33.7	636
November	383	10.3	422	7.5	454	26.3	574
December	377	3.4	390	6.9	417	25.6	524
January	369	11.1	410	9.8	450	28.3	578
February	370	4.5	387	7.0	414	26.9	525
March	417	7.2	447	2.2	457		
April	435	3.3	449	4.3	468		
May	471	17.7	554	11.9	620		
Total Year	$5,003	7.6	$5,381	6.4	$5,724		
June - Feb	$3,680	6.8	$3,931	6.3	$4,180	26.1	$5,270

Total Vehicles

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$842	3.1	$868	5.9	$920	15.1	$1,058
July	936	2.1	956	3.0	984	13.7	1,119
August	947	2.7	972	2.4	995	25.6	1,250
September	803	3.0	827	2.3	846	18.3	1,001
October	845	(7.6)	781	8.5	847	25.1	1,060
November	740	6.7	789	2.3	807	19.7	965
December	735	(7.9)	677	7.7	729	18.7	866
January	631	8.8	686	1.9	699	25.7	879
February	650	(0.5)	647	2.3	661	25.7	831
March	743	(0.9)	736	2.4	754		
April	772	6.6	823	(2.2)	805		
May	878	14.6	1,006	3.6	1,042		
Total Year	$9,522	2.6	$9,769	3.3	$10,090		
June - Feb	$7,129	1.0	$7,203	4.0	$7,489	20.6	$9,029

NOTES:

(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.

(2) Leap year occurred in 2016, resulting in negative traffic and toll revenue impacts in February 2017 compared to February 2016.

(3) AET conversion occurred in April 2018.

(4) Vehicle classification changes were implemented at the time of AET conversion in April 2018.

Table 9

Turnpike I-376 - Beaver Valley Expressway - Monthly Transaction and Gross Toll Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	574	(2.1)	562	5.4	592	4.8	621	108	3.3	111	12.9	126	1.4	127	682	(1.2)	673	6.6	718	4.2	748
July	610	(3.7)	588	1.0	593	8.4	643	113	(8.4)	104	10.1	114	12.8	129	723	(4.5)	691	2.3	707	9.1	771
August	601	(3.6)	579	4.2	604	12.1	677	110	2.7	113	12.1	127	11.5	142	711	(2.6)	693	5.5	730	12.0	818
September	565	(2.7)	550	6.0	583	6.2	619	109	(4.6)	104	13.5	118	2.7	122	675	(3.0)	654	7.2	702	5.6	741
October	577	(4.1)	553	4.3	577	13.7	657	117	(10.5)	105	15.1	120	16.0	140	694	(5.2)	658	6.0	698	14.1	796
November	529	(3.6)	509	6.2	541	9.2	591	98	(3.2)	95	10.4	105	6.6	112	627	(3.6)	605	6.9	646	8.8	703
December	539	(7.8)	497	7.4	534	9.1	582	93	(13.8)	80	13.5	91	8.2	99	632	(8.7)	577	8.3	625	9.0	681
January	455	(1.2)	450	6.3	478	8.5	519	82	(2.0)	80	12.9	90	11.5	101	537	(1.3)	530	7.3	569	9.0	620
February	446	(3.2)	432	7.7	465	9.3	508	81	(3.7)	78	16.4	91	4.2	95	527	(3.3)	510	9.0	556	8.4	603
March	519	(4.0)	499	10.6	552			99	(7.4)	92	15.3	106			619	(4.5)	591	11.4	658		
April	513	(0.5)	511	11.2	568			102	(8.6)	93	23.0	115			616	(1.9)	604	13.0	683		
May	547	1.6	556	12.2	623			107	1.3	108	21.4	132			654	1.5	664	13.7	755		
Total Year	6,476	(2.9)	6,286	6.8	6,711			1,220	(4.6)	1,164	14.7	1,335			7,696	(3.2)	7,450	8.0	8,046		
June - Feb	4,896	(3.6)	4,721	5.2	4,968	9.0	5,416	911	(4.5)	870	12.9	982	8.4	1,065	5,808	(3.7)	5,591	6.4	5,950	8.9	6,481

Gross Toll Revenue (in $1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$732	4.3	$764	0.9	$771	9.8	$847	$342	11.3	$381	(3.1)	$369	1.6	$375	$1,074	6.6	$1,144	(0.4)	$1,140	7.2	$1,221
July	783	3.4	810	(3.7)	780	12.2	875	364	(4.7)	347	(4.4)	332	12.3	373	1,148	0.9	1,157	(3.9)	1,112	12.3	1,248
August	773	0.9	780	0.9	787	18.7	935	348	9.7	381	(4.1)	366	13.5	415	1,121	3.6	1,162	(0.7)	1,153	17.1	1,350
September	716	3.0	738	1.4	748	15.0	861	351	0.3	352	(0.7)	349	2.3	357	1,067	2.1	1,090	0.7	1,098	11.0	1,218
October	729	2.1	744	0.6	749	19.2	892	380	(8.4)	348	(1.9)	341	20.1	410	1,109	(1.5)	1,092	(0.2)	1,090	19.5	1,302
November	668	1.3	677	2.7	695	15.5	803	319	(0.7)	317	(4.0)	304	7.1	326	987	0.6	994	0.5	999	13.0	1,129
December	675	(1.8)	663	3.0	683	14.8	784	302	(10.7)	270	(0.7)	268	6.8	286	977	(4.6)	933	1.9	951	12.6	1,070
January	606	2.2	619	3.7	642	18.9	763	283	0.8	286	(6.7)	266	15.4	307	889	1.7	905	0.4	908	17.9	1,071
February	591	2.2	604	3.1	623	21.2	755	282	(1.0)	279	(0.2)	278	8.6	302	873	1.1	883	2.1	901	17.3	1,057
March	688	1.8	700	6.8	748			343	(3.7)	331	(2.1)	324			1,031	(0.0)	1,031	3.9	1,071		
April	680	5.3	717	9.0	781			346	(4.3)	332	4.0	345			1,027	2.1	1,048	7.4	1,126		
May	739	(7.1)	687	21.9	837			365	(12.0)	321	21.1	389			1,104	(8.7)	1,008	21.7	1,226		
Total Year	$8,382	1.5	$8,504	4.0	$8,845			$4,026	(2.0)	$3,943	(0.3)	$3,931			$12,408	0.3	$12,447	2.6	$12,776		
June - Feb	$6,275	2.0	$6,400	1.2	$6,479	16.0	$7,516	$2,971	(0.4)	$2,960	(2.9)	$2,874	9.6	$3,151	$9,246	1.2	$9,360	(0.1)	$9,352	14.1	$10,667

NOTES:

(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.

(2) Leap year occurred in 2016, resulting in negative traffic and toll revenue impacts in February 2017 compared to February 2016.

(3) AET conversion occurred in May 2017.

Table 10

Turnpike I-576 - Southern Beltway - Findlay Connector - Monthly Transaction and Gross Toll Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

Month	Passenger Cars 2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	Commercial Vehicles 2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	Total Vehicles 2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	155	(2.9)	151	4.1	157	(11.0)	140	20	(6.2)	19	(2.3)	19	16.5	22	175	(3.3)	170	3.4	175	(8.1)	161
July	163	(0.5)	162	(2.7)	158	(11.2)	140	19	(5.6)	18	11.0	20	8.8	22	182	(1.1)	180	(1.3)	178	(8.9)	162
August	158	5.9	168	2.6	172	(19.3)	139	20	(0.3)	20	15.2	23	28.8	30	179	5.2	188	4.0	196	(13.6)	169
September	147	2.6	151	2.1	154	(19.3)	124	21	(15.0)	18	23.0	22	37.1	31	168	0.4	169	4.3	176	(12.2)	155
October	154	0.4	154	6.5	164	(15.5)	139	23	2.2	24	(8.0)	22	17.2	25	177	0.6	178	4.6	186	(11.7)	164
November	141	4.7	147	0.2	148	(13.4)	128	21	(7.2)	19	0.7	19	21.8	23	161	3.2	166	0.2	167	(9.4)	151
December	143	(0.8)	142	(1.3)	140	(11.5)	124	20	(4.1)	19	(13.6)	17	31.7	22	163	(1.2)	161	(2.7)	157	(6.9)	146
January	124	5.8	131	(0.2)	131	(9.7)	118	16	21.8	20	(18.6)	16	38.6	22	140	7.7	151	(2.6)	147	(4.4)	141
February	122	1.8	124	(2.3)	122	(5.8)	115	15	(1.0)	15	8.1	16	37.2	22	137	1.5	139	(1.2)	138	(0.7)	137
March	143	2.3	146	(2.3)	143			17	2.4	18	11.2	20			160	2.3	164	(0.8)	163		
April	138	3.9	143	(2.1)	140			17	5.5	18	15.1	20			155	4.1	161	(0.2)	161		
May	147	6.8	157	(4.0)	151			21	(9.9)	19	33.8	25			168	4.8	176	(0.0)	176		
Total Year	1,735	2.4	1,777	0.1	1,779			231	(2.0)	227	5.7	240			1,966	1.9	2,004	0.8	2,019		
June - Feb	1,307	1.8	1,330	1.1	1,345	(13.3)	1,166	177	(2.3)	172	1.2	175	26.0	220	1,483	1.3	1,502	1.1	1,519	(8.8)	1,386

Gross Toll Revenue (in $1,000s)

Month	Passenger Cars 2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	Commercial Vehicles 2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	Total Vehicles 2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$106	2.2	$108	1.9	$110	42.4	$157	$45	(7.0)	$42	(1.7)	$42	35.5	$56	$151	(0.6)	$150	0.9	$152	40.5	$213
July	120	(1.6)	118	(2.8)	114	41.3	162	47	(12.8)	41	8.0	44	29.2	57	167	(4.8)	159	0.0	159	38.0	219
August	114	2.7	117	4.6	123	36.9	168	47	(5.4)	45	13.4	51	57.3	79	161	0.3	162	7.0	173	42.8	247
September	103	2.6	106	1.9	108	36.4	147	48	(15.4)	41	19.3	48	70.1	82	151	(3.1)	147	6.7	156	46.8	230
October	108	(0.7)	108	8.1	116	40.6	164	50	(1.6)	49	(2.3)	48	41.6	68	159	(1.0)	157	4.8	165	40.9	232
November	99	3.5	103	0.5	103	43.8	148	45	(6.2)	42	1.6	43	42.8	61	144	0.5	145	0.8	146	43.5	209
December	96	6.3	102	(0.8)	101	43.3	145	43	5.4	45	(16.1)	38	52.3	57	138	6.0	147	(5.5)	139	45.8	202
January	85	8.0	92	(1.8)	91	62.4	147	38	24.6	47	(21.1)	37	64.5	61	123	13.1	139	(8.3)	128	63.0	208
February	95	(8.7)	87	(2.3)	85	70.1	144	37	(7.1)	35	5.5	36	72.9	63	132	(8.2)	122	(0.1)	121	70.9	208
March	99	2.9	101	(0.7)	101			39	5.1	41	6.8	44			138	3.5	142	1.4	144		
April	97	4.4	101	(3.2)	98			39	5.5	41	11.9	46			136	4.7	142	1.1	144		
May	103	6.6	110	(3.7)	106			45	(7.4)	42	27.3	54			148	2.3	152	4.9	159		
Total Year	$1,225	2.2	$1,253	0.2	$1,255			$523	(2.5)	$510	3.9	$530			$1,748	0.8	$1,763	1.3	$1,785		
June - Feb	$927	1.5	$940	1.2	$951	45.3	$1,382	$400	(3.5)	$386	0.2	$387	51.4	$586	$1,327	(0.0)	$1,327	0.9	$1,338	47.1	$1,968

NOTES:

(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.

(2) Leap year occurred in 2016, resulting in negative traffic and toll revenue impacts in February 2017 compared to February 2016.

(3) AET conversion occurred in June 2018.

(4) Vehicle classification changes were implemented at the time of AET conversion in June 2018.

(5) The I-576 tolling configuration was changed from six ramp tolls to two mainline toll gantries at the time of AET conversion in June 2018.

Table 11

Delaware River Bridge - Monthly Transaction and Gross Toll Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

Passenger Cars

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June			606	(0.8)	601	7.3	645
July			647	(1.6)	637	4.3	664
August			657	(1.1)	650	6.0	689
September			573	0.6	577	6.6	616
October			583	0.0	583	20.1	700
November			570	(1.3)	563	24.1	699
December			555	(2.1)	543	32.6	720
January	436	(24.4)	330	41.7	467	31.0	612
February	463	(100.0)	0	N/A	446	31.4	586
March	532	(39.8)	320	62.3	519		
April	541	0.8	545	2.8	561		
May	589	(2.0)	577	6.0	611		
Total Year	2,561		5,963		6,758		
June - Feb			4,522	12.1	5,067	17.0	5,930

Commercial Vehicles

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June			103	0.8	104	10.1	115
July			97	1.6	98	14.5	113
August			103	5.8	109	10.6	120
September			99	1.8	101	5.5	106
October			97	11.2	108	17.5	127
November			98	5.5	103	13.1	117
December			96	0.5	96	14.1	110
January	81	(26.6)	59	62.1	96	20.0	115
February	84	(100.0)	0	N/A	90	16.1	104
March	95	(34.1)	63	62.5	102		
April	95	(4.5)	91	14.4	104		
May	97	6.5	103	12.3	115		
Total Year	452		1,008		1,227		
June - Feb			752	20.4	905	13.4	1,027

Total Vehicles

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June			709	(0.6)	705	7.7	760
July			744	(1.2)	735	5.7	777
August			760	(0.2)	759	6.7	810
September			672	0.8	678	6.5	722
October			680	1.6	691	19.7	827
November			668	(0.3)	666	22.4	815
December			651	(1.7)	639	29.8	830
January	517	(24.8)	389	44.8	563	29.1	727
February	548	(100.0)	0	N/A	535	28.8	690
March	627	(39.0)	383	62.3	621		
April	636	(0.0)	636	4.5	665		
May	685	(0.8)	679	6.9	727		
Total Year	3,012		6,971		7,984		
June - Feb			5,273	13.2	5,972	16.5	6,957

Gross Toll Revenue (in $1,000s)

Passenger Cars

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June			$3,150	(1.6)	$3,098	6.2	$3,291
July			3,380	(3.5)	3,260	3.7	3,381
August			3,337	0.0	3,337	6.6	3,557
September			3,038	(1.3)	3,000	5.5	3,165
October			2,985	(0.8)	2,962	20.2	3,560
November			2,915	(4.5)	2,783	28.5	3,577
December			2,872	(1.6)	2,827	28.4	3,631
January	2,167	(18.7)	1,762	39.6	2,461	33.8	3,293
February	2,340	(100.3)	-7	N/A	2,265	39.7	3,164
March	2,713	(41.4)	1,591	65.9	2,639		
April	2,813	(1.3)	2,775	3.7	2,879		
May	2,989	(2.0)	2,929	6.0	3,104		
Total Year	$13,021		$30,727		$34,615		
June - Feb			$23,432	10.9	$25,993	17.8	$30,619

Commercial Vehicles

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June			$1,845	1.9	$1,879	8.7	$2,043
July			1,753	0.8	1,767	13.0	1,998
August			1,830	6.7	1,952	10.1	2,149
September			1,797	1.9	1,831	4.7	1,916
October			1,758	10.3	1,938	17.4	2,275
November			1,761	3.4	1,821	14.0	2,076
December			1,743	0.6	1,754	12.2	1,968
January	1,430	(25.1)	1,071	60.5	1,720	25.5	2,159
February	1,503	(99.9)	1	N/A	1,621	21.4	1,967
March	1,702	(34.6)	1,112	64.1	1,825		
April	1,738	(5.5)	1,642	13.2	1,858		
May	1,721	6.3	1,829	12.0	2,049		
Total Year	$8,094		$18,142		$22,016		
June - Feb			$13,559	20.1	$16,283	13.9	$18,551

Total Vehicles

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June			$4,995	(0.3)	$4,978	7.2	$5,334
July			5,133	(2.0)	5,027	7.0	5,379
August			5,166	2.4	5,289	7.9	5,706
September			4,835	(0.1)	4,831	5.2	5,081
October			4,742	3.3	4,900	19.1	5,835
November			4,677	(1.5)	4,604	22.8	5,653
December			4,615	(0.7)	4,581	22.2	5,599
January	3,596	(21.2)	2,834	47.5	4,181	30.4	5,452
February	3,843	(100.2)	-6	N/A	3,886	32.1	5,131
March	4,415	(38.8)	2,703	65.2	4,464		
April	4,551	(2.9)	4,418	7.2	4,737		
May	4,711	1.0	4,758	8.3	5,154		
Total Year	$21,115		$48,869		$56,631		
June - Feb			$36,991	14.3	$42,276	16.3	$49,170

NOTES:
(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.
(2) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(3) The Delaware River Bridge toll plaza was converted from part of the Ticket System to a one-way barrier AET facility in January 2016.

- Table 9 - Turnpike I-376 (Beaver Valley Expressway);
- Table 10 - Turnpike I-576 (Southern Beltway – Findlay Connector) and;
- Table 11 - Delaware River Bridge.

The information is provided by passenger cars, commercial vehicles, and total vehicles. For comparative purposes, subtotals are provided for June through February for each fiscal year. It should be noted that the Delaware River Bridge (DRB) was converted to a westbound only cashless tolling system in January 2016. Prior to that time, DRB traffic and revenue data were included in the Ticket System. All DRB traffic and revenue data are now shown separately.

As shown in Table 3, Systemwide gross toll revenue increased by 8.1 percent in FY 2016-17, and 7.9 percent in FY 2017-18. Year to date (June 2018 through February 2019) toll revenue growth was 10.4 percent compared to the same period in the prior year. Commercial vehicle toll revenue increased by 13.8 percent and passenger car toll revenue increased by 7.8 percent from June 2018 through February 2019 compared to the same time period in the prior year. These increases in toll revenue were largely due to annual toll increases. Year-to-date transactions grew by 0.1 percent, 3.3 percent, and 0.6 percent for passenger cars, commercial vehicles, and total vehicles, respectively.

It should be noted that the DRB was closed on January 20, 2017 due to a fracture in one of the structural support beams. The structure was closed to all traffic through March 9, 2017. This event negatively impacted the traffic and revenue values for FY 2016-17. CDM Smith analyzed the impact on Turnpike traffic and revenue during the closure and estimated that losses over this period amounted to 1.8 million transactions and $12.1 million in toll revenue. Thus, absent the DRB closure, the total FY 2016-17 Turnpike traffic would have increased by 1.7 percent (instead of 0.8 percent) compared to the previous year. Total toll revenue would have increased by 9.3 percent (instead of 8.1 percent) compared to the previous year.

As previously mentioned, the Ticket System is by far the largest component of both traffic and toll revenue on the Turnpike System. As shown in Table 4, total year-to-date transactions decreased 0.8 percent compared to the same period in the prior year. Year-to-date Passenger car transactions decreased by 1.2 percent during this period. Year-to-date Commercial vehicle activity has been more stable during this period, with traffic increasing 2.0 percent compared to the previous nine-month period. Total revenue for the Ticket System grew by 5.7 percent in FY 2016-17 and by 7.7 percent in FY 2017-18. Year-to-date FY 2018-19 revenue has grown by 9.9 percent compared to the same time frame in the previous year. The above mentioned DRB closure would also have negatively affected Ticket System traffic and revenue in January, February, and March 2017.

The combined Barrier Facilities monthly transaction and revenue data is shown in Table 5. Year-to-date transactions increased 5.4 percent in 2018-19 compared to the same period in the previous year. Commercial vehicle transactions increased 8.0 percent for this time period, while passenger cars grew at 4.9 percent. Total revenue for the combined Barrier Facilities grew 14.7 percent overall year-to-date. Growth in toll revenue at the barrier facilities has outpaced transaction growth due to higher commercial vehicle growth and vehicle classifications adjustments (upon AET conversion) at some facilities. These vehicle classification changes, combined with stronger economic conditions and low fuel prices, likely account for much of the recent revenue growth on these barrier facilities. When such conversions occur, there is a significant increase in video transactions, which also has the effect of increasing the average toll rates.

Traffic and gross toll revenue trends for the six barrier toll facilities are provided in Tables 6 through 11. These six barrier facilities (Turnpikes 43 and 66, the Northeast Extension barrier plazas, Turnpikes I-376 and I-576, and the Delaware River Bridge) contribute about 10 percent of the total Systemwide gross toll revenue.

The effects of ramp-up, inclement weather, alternative routes, and new developments have a more significant impact on these relatively low volume roads. Traffic growth has been positive on most of these barrier facilities thus far in FY 2018-19, countering long term trends. Revenue growth especially has grown, partially due to vehicle classification changes on the Northeast Extension and Findlay Connector Barrier Facilities, combined with the above mentioned AET conversions.

Actual and Assumed Toll Rate Increases

Annual toll rate increases are assumed to occur on the entire Turnpike System. The toll rate increases are assumed to occur at 12:01 AM on first Sunday after January 1 of each year. Rate increase assumptions are unchanged since the 2018 Forecast Study. **Table 12** presents the annual percent increases in toll rates for E-ZPass and cash/video from calendar year 2018 through 2049.

Actual and Assumed E-ZPass Penetration Rates

Table 13 presents the actual and assumed annual E-ZPass penetration rates from calendar year 2016 through 2049. The first three columns show the E-ZPass market share assumptions for the current 2019 Bring Down Letter. These were adjusted slightly on a facility by facility basis, by the amount shown in the three rightmost columns, over assumptions used in the 2018 Forecast Study. Actual experience over the last 12 months has shown that the E-ZPass market share has decreased when compared to the last study in certain cases, most notably for those facilities that have converted to AET.

Table 12
Actual and Assumed Percent Changes in Toll Rates
Pennsylvania Turnpike System

Calendar	Percent Changes in Turnpike System's Toll Rates (1)	
Year	E-ZPass	Cash
2018	6.00	6.00
2019	6.00	6.00
2020	6.00	6.00
2021	5.00	5.00
2022	5.00	5.00
2023	5.00	5.00
2024	5.00	5.00
2025	5.00	5.00
2026	4.00	4.00
2027	3.50	3.50
2028	3.00	3.00
2029	3.00	3.00
2030	3.00	3.00
2031	3.00	3.00
2032	3.00	3.00
2033	3.00	3.00
2034	3.00	3.00
2035	3.00	3.00
2036	3.00	3.00
2037	3.00	3.00
2038	3.00	3.00
2039	3.00	3.00
2040	3.00	3.00
2041	3.00	3.00
2042	3.00	3.00
2043	3.00	3.00
2044	3.00	3.00
2045	3.00	3.00
2046	3.00	3.00
2047	3.00	3.00
2048	3.00	3.00
2049	3.00	3.00

(1) Toll rate increases are the same for all facilities and vehicle classes.

Note:
The toll rate increases in this 2019 Bring Down Letter are actual through 2019.

Table 13
Actual and Assumed Percent E-ZPass Penetration
Pennsylvania Turnpike System

Calendar Year	E-ZPass Penetration Rates: 2019 Bring Down Letter: Cars	Trucks	Total	Difference from 2018 Forecast Study: Cars	Trucks	Total
2016	76.2	89.2	78.0	0.0	0.0	0.0
2017	78.3	90.1	79.9	0.0	0.0	0.0
2018	80.0	90.6	81.5	-0.5	-0.6	-0.5
2019	81.5	91.0	82.9	-0.4	-0.8	-0.4
2020	82.9	91.5	84.1	-0.3	-1.1	-0.4
2021	83.9	92.0	85.1	-0.3	-1.2	-0.4
2022	85.2	92.6	86.3	0.9	-1.0	0.7
2023	86.0	93.1	87.1	1.0	-1.0	0.8
2024	86.8	93.6	87.8	1.1	-1.0	0.9
2025	87.3	93.7	88.3	1.2	-1.1	0.9
2026	87.9	93.8	88.8	1.2	-1.1	0.9
2027	88.3	93.8	89.2	1.1	-1.0	0.9
2028	88.8	93.9	89.5	1.1	-1.0	0.8
2029	89.2	93.9	89.9	1.1	-1.0	0.8
2030	89.6	94.0	90.3	1.1	-1.0	0.8
2031	90.0	94.0	90.6	1.1	-1.0	0.8
2032	90.1	94.0	90.7	1.1	-0.9	0.8
2033	90.1	94.1	90.7	1.0	-0.9	0.8
2034	90.2	94.1	90.8	1.0	-0.9	0.8
2035	90.3	94.2	90.9	1.0	-0.9	0.7
2036	90.3	94.2	90.9	1.0	-0.8	0.7
2037	90.3	94.2	90.9	1.0	-0.8	0.7
2038	90.4	94.3	91.0	0.9	-0.8	0.7
2039	90.4	94.3	91.0	0.9	-0.7	0.7
2040	90.4	94.3	91.0	0.9	-0.7	0.7
2041	90.4	94.4	91.0	0.9	-0.7	0.7
2042	90.4	94.4	91.0	0.9	-0.6	0.7
2043	90.4	94.4	91.1	0.9	-0.6	0.7
2044	90.4	94.4	91.1	0.9	-0.6	0.7
2045	90.5	94.5	91.1	0.8	-0.6	0.7
2046	90.5	94.5	91.1	0.8	-0.5	0.6
2047	90.5	94.5	91.1	0.8	-0.5	0.6
2048	90.5	94.5	91.1	0.8	-0.5	0.6
2049	90.5	94.5	91.1			

Note: The E-ZPass penetration rates for this 2019 Bring Down Letter are actual through 2018 and were actual only through 2017 for the 2018 Forecast Study.

The revised total E-ZPass penetration rates range from 0.5 percentage points lower to 0.9 percentage points higher than those in the 2018 Forecast Study. The downward adjustment to the commercial vehicle rates is largely due to actual observed experience due to AET conversion on barrier facilities. In the twelve months of new data since the 2018 Forecast Study, it can be observed that although E-ZPass transactions are generally growing, video transactions grew at a higher rate and have pushed the E-ZPass percentage downward.

Summary of Changes in Future Year Estimates for U.S. Gross Domestic Product and Pennsylvania Gross State Product

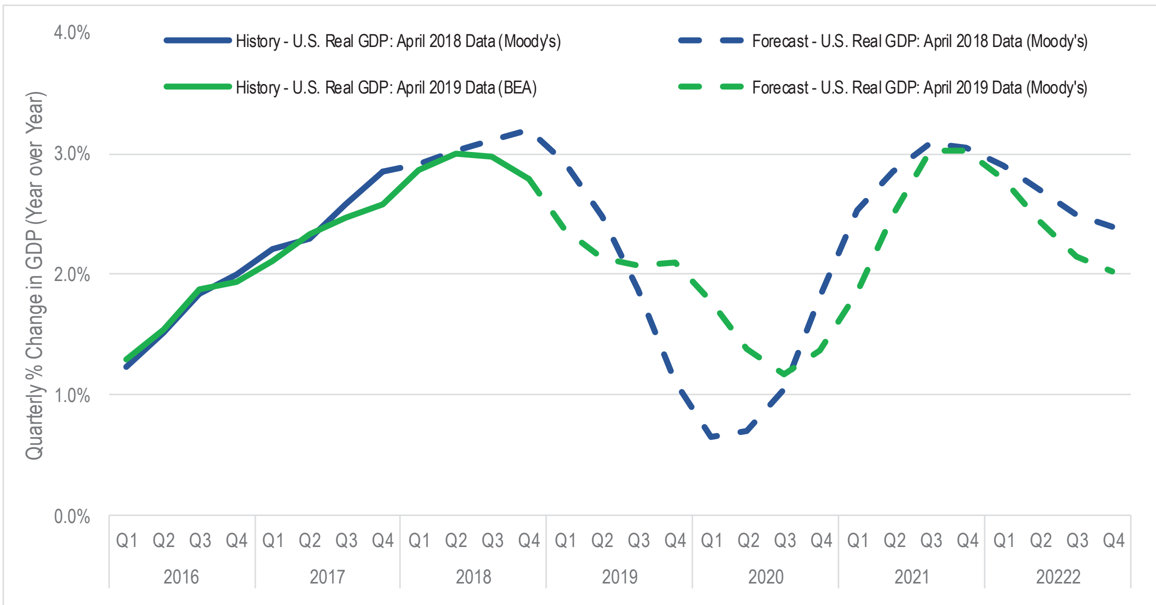
This section presents a comparison of the Gross Domestic Product (GDP) and Gross State Product (GSP) information available for the 2018 Forecast Study with updated forecasts for both measures from Moody's Analytics. This information was a key input in developing estimated growth forecasts for the Turnpike System.

Figure 3 shows actual and estimated GDP at the time of the 2018 Forecast Study as well as the revised figures based on updated Moody's Analytic's forecasts as of March 2019. As shown, actual experience in the second half of 2018 underperformed prior estimates by between about 0.1 to 0.4 percent (though GDP growth remained positive throughout the period). The revised GDP growth estimates in 2019 show a lower growth than the prior forecast for the first half of 2019, but higher growth in the latter half of the year and for most of 2020. Beginning in the fourth quarter of 2020, the revised GDP estimates are less than the prior forecast.

Figure 4 shows GSP trend and forecast data for Pennsylvania. The GSP growth at the end of 2017 and throughout 2018 was lower than the prior estimates by a range of 1.0 to 1.5 percent. The GSP growth estimates for 2019 and 2020 are estimated to be higher than the previous estimates by a range of 0.0 to 1.1 percent. By the fourth quarter of 2020, the March 2019 GSP forecast falls below the April 2018 forecast until at least the end of 2022.

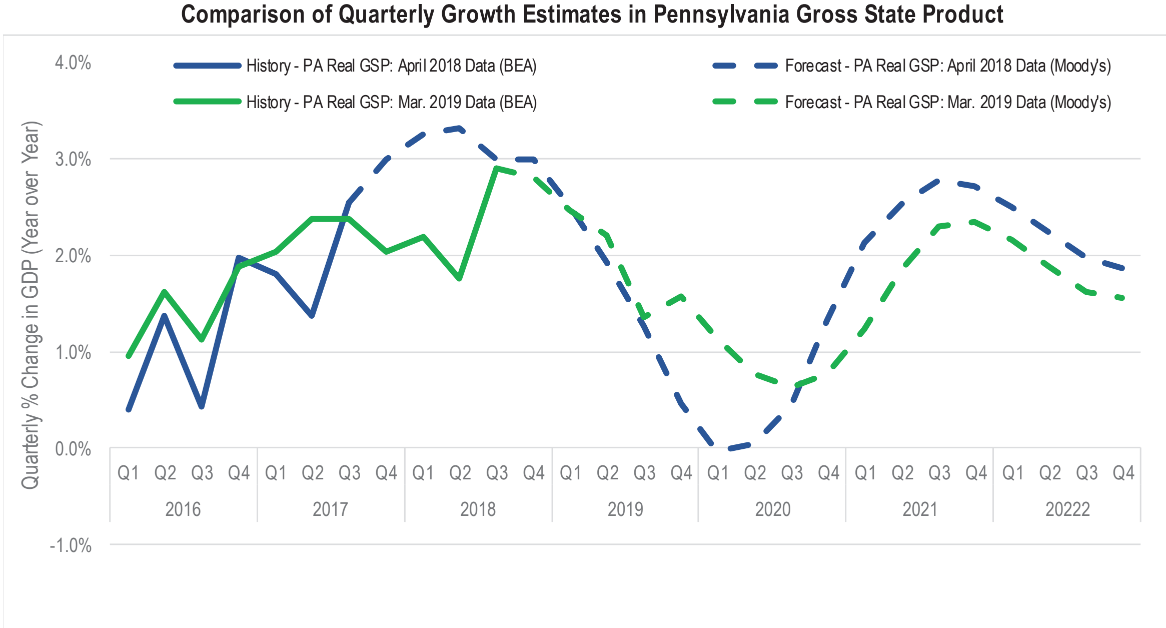
Based on this information alone it would be assumed that actual traffic growth in 2018 would have underperformed CDM Smith's 2018 Forecast Study estimates. As will be discussed below, that was not the case across all the facilities. In fact, actual traffic and toll revenue on the total System slightly outperformed CDM Smith's estimates. This is likely due to other factors, namely motor fuel prices and consumer confidence which are discussed in the next section. The above mentioned AET conversions have also positively affected recent growth trends.

Figure 3
Comparison of Quarterly Growth Estimates in U.S. Gross Domestic Product



Sources: Historical estimates are from the BEA, and the forecasts are from Moody's Analytics (April 2018 and April 2019 Releases)

Figure 4
Comparison of Quarterly Growth Estimates in Pennsylvania Gross State Product



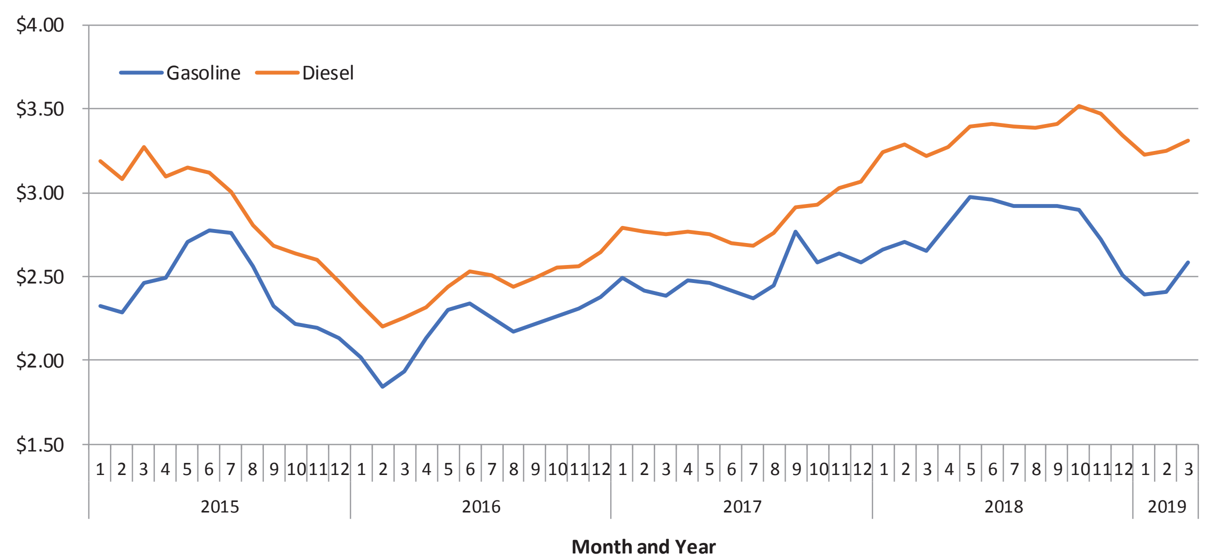
Sources: Historical estimates are from the BEA, and the forecasts are from Moody's Analytics (April 2018 and March 2019 Releases)

Summary of Trends in Fuel Prices

Figure 5 portrays gasoline and diesel prices for the Central Atlantic Region from January 2015 through March 2019. As shown, gasoline and diesel prices have followed generally similar trends throughout this period. The exception to this is the first six months of 2015, where gasoline prices rose approximately $0.40 per gallon while diesel prices remained relatively flat. Since that time, both prices have generally moved in tandem, decreasing over the last six months of 2015 and the the first few months of 2016, reaching a low of $1.85 per gallon for gasoline and $2.20 per gallon for diesel in February 2016. Prices for both increased slowly but steadily throughout 2016, 2017, and early 2018, reaching a high of $2.97 per gallon for gasoline in May 2018. Prices fluctuated within a narrow range for the remainder of 2018, with diesel reaching a high of $3.52 per gallon in October 2018. Prices of both gasoline and diesel fell throughout the winter of 2018-19, and have begun to increase again in the spring.

Motor fuel prices have remained relatively stable (and even declined in recent months) compared to price trends available at the time of the 2018 Forecast Study. This may have contributed to the recently observed strong growth on the Turnpike System, especially for commercial vehicles.

Figure 5
Fuel Prices in Central Atlantic Region ($ per Gallon)



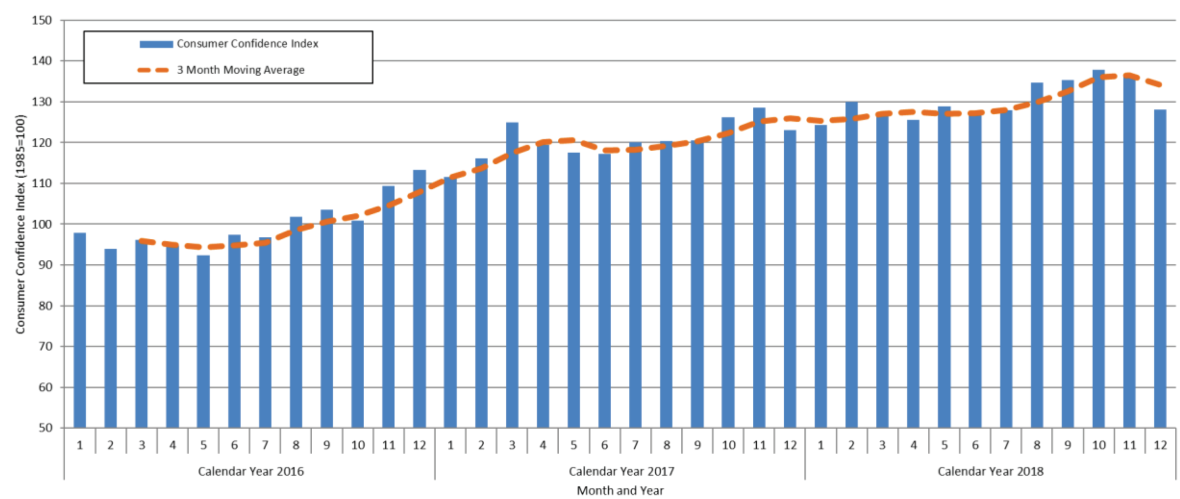
Source: U.S. Energy Information Administration, Release Date 4/8/2019
Note: Retail Prices in USD for Regular All Formulations Retail Gasoline and Number 2 Diesel

Consumer Confidence

Figure 6 shows the Conference Board Consumer Confidence Index for the period between January 2016 and December 2018. The individual blue bars show the index values for each month while the dotted line shows the three-month moving average. As shown, consumer confidence has trended up over the period shown. The average exceeded 99 in 2016, rose to approximately 120 in 2017, and surpassed 130 in 2018. The Consumer Confidence Index has been showing a steady upward trend since the beginning of 2016. By the end of 2016, consumer confidence rose to pre-recession levels for the first time since the 2008 recession, and has continued to grow since then. The most recent two months of November and December 2018 experienced a slight decrease from a high of 137.9 in October, which was the highest level of consumer confidence since September 2000.

Consumer confidence is an important measure in that it highlights consumer's confidence in making purchases, their willingness to travel more, etc. Thus, we can infer that higher consumer confidence spurs demand for various goods and services and that higher demand results in higher traffic on the roadways.

Figure 6
Conference Board Consumer Confidence Index



Committed Roadway Improvements

Table 14 lists major capacity-enhancing roadway improvements with dedicated funding on the Pennsylvania Turnpike system. Most of these projects are part of PTC's statewide total reconstruction initiative, which is a multi-year project to widen the mainline and the Northeast Extension to six lanes (three in each direction). On the Mainline I-76/I-276 this includes work throughout the Pittsburgh, Somerset, Harrisburg, and Philadelphia metro areas. More than 130 miles have been completed as of 2019, with more than 40 additional miles under construction or funded. In addition to roadway widening, Table 14 highlights two additional projects; one to link I-476 (Northeast Extension) to I-81 in the Scranton area and the other to extend Toll 576 (Southern Beltway) an additional 12.5 miles in the Pittsburgh area. These projects will serve to enhance capacity and create additional connections to other routes, both of which are expected to increase the number of travelers, and therefore revenue, on the Pennsylvania Turnpike system.

Actual Versus Estimated Traffic and Toll Revenue

Table 15 provides a comparison of actual traffic and toll revenue versus estimated traffic and toll revenue from CDM Smith's 2018 Forecast Study. The analysis period in this table is from March 2018 through February 2019. This twelve-month period corresponds to the period for which actual data currently exists but was estimated at the time of the 2018 Forecast Study.

Systemwide, actual passenger car transactions surpassed estimates by 0.9 percent, and passenger-car toll revenue exceeded estimates by 1.8 percent. Commercial vehicle transactions exceeded estimates by 3.7 percent, and actual commercial vehicle toll revenue was 7.9 percent greater than estimates. When all vehicles are considered, actual transactions were higher than estimates by 1.3 percent and toll revenue exceeded estimates by 4.4 percent. As mentioned earlier in this report, the AET conversions have had a larger than expected positive impact on commercial vehicle growth. This was especially true for the video component of traffic, which have higher toll rates and thus have the effect of increasing average commercial vehicle toll rates.

The same information is provided in Table 15 for each of the Turnpike toll facilities. Actual versus estimated traffic and toll revenue tracks quite closely for the Ticket System. Actual traffic and toll revenue for ticket system would have been even higher absent the negative impact of the DRB closure in January through March 2017.

All barrier facilities overperformed when compared to the 2018 Forecast Study forecasts. Barrier System toll revenue was higher than CDM Smith estimates by between 4.6 percent (Turnpike 66) and 29.2 percent (Turnpike I-576) for both passenger car and commercial revenue combined.

Table 14
Major Committed Roadway Improvements on the Pennsylvania Turnpike System (1)

Milepost	Location	Description	Actual or Assumed Start Date	Assumed Completion Date
Mainline I-76/I-276				
28-31	Alleghany and Butler Counties	Reconstruct and widen to 3 lanes in each direction	Early 2020	2022
40-44	Alleghany County	Replace 6 overhead bridges and widen to 6 lanes in each direction	February 2013	Fall 2019
49-67	Alleghany and Westmoreland Counties	Reconstruct and widen to 3 lanes in each direction	To be determined	To be determined
102-109	Somerset County	Reconstruct and widen to 3 lanes in each direction	Early 2020	Late 2022
128-134	Somerset and Bedford Counties	Reconstruct and widen to 3 lanes in each direction	To be determined	To be determined
149-155	Bedford County	Reconstruct and widen to 3 lanes in each direction	To be determined	To be determined
180-186	Fulton and Huntingdon Counties	Reconstruct and widen to 3 lanes in each direction	To be determined	To be determined
202-206	Cumberland County	Reconstruct and widen to 3 lanes in each direction	September 2016	May 2019
298-308	Berks and Chester Counties	Reconstruct and widen to 3 lanes in each direction	To be determined	To be determined
308-312	Chester County	Reconstruct and widen to 3 lanes in each direction	Fall 2021	Fall 2023
312-316	Chester County	Reconstruct and widen to 3 lanes in each direction	Spring 2020	Late 2022
320-326	Chester and Montgomery Counties	Reconstruct and widen to 3 lanes in each direction	To be determined	To be determined
Northeast Extension I-476				
A31-A38	Montgomery County	Reconstruct and widen to 3 lanes in each direction	Early 2018	Late 2020
A38-A44	Montgomery and Bucks Counties	Reconstruct and widen to 3 lanes in each direction	Spring 2021	Late 2023
	Lackawanna and Luzerne Counties	Link I-476 to I-81 with two interchanges to create a Scranton Beltway	2022	2026
Southern Beltway Toll 576				
US-22 to I-79	Washington and Allegheny Counties	Construct a 12.5-mile cashless tolling extension of Toll 576 from the southern terminus of the Findlay Connector at US-22 to I-79 including four new interchanges	December 2016	2022

(1) The roadway improvement projects shown in this table are a small subset of the projects listed in the PTC's Major Design and Construction Projects website and listed in the Proposed Twelve-Year Program

Table 15
Comparison of Estimated and Actual Traffic Volumes and Gross Toll Revenue
From March 2018 Through February 2019 (1)
Pennsylvania Turnpike System

Facility	Total Traffic (in Thousands) Estimated	Total Traffic (in Thousands) Actual	Total Traffic (in Thousands) Actual as Percent of Estimated	Total Gross Toll Revenue (in Thousands) Estimated	Total Gross Toll Revenue (in Thousands) Actual	Total Gross Toll Revenue (in Thousands) Actual as Percent of Estimated
			Passenger Cars			
Ticket and Gateway Barrier	133,870	132,899	(0.7)	$625,143	$630,328	0.8
Delaware River Bridge	6,845	7,621	11.3	35,386	39,241	10.9
Turnpike 43	11,866	12,463	5.0	19,296	20,693	7.2
Turnpike 66	6,377	6,480	1.6	11,255	11,588	3.0
Northeast Extension (Barrier)	4,257	4,482	5.3	4,248	4,816	13.4
Turnpike I-376	6,522	7,160	9.8	8,724	9,882	13.3
Turnpike I-576	1,481	1,600	8.0	1,334	1,686	26.4
Barrier Subtotal	37,347	39,806	6.6	80,244	87,906	9.5
Total System	171,217	172,706	0.9	$705,387	$718,234	1.8
			Commercial Vehicles			
Ticket and Gateway Barrier	22,381	22,911	2.4	$492,401	$530,370	7.7
Delaware River Bridge	1,220	1,348	10.5	22,238	24,284	9.2
Turnpike 43	1,027	1,089	6.0	4,767	5,254	10.2
Turnpike 66	1,037	1,104	6.5	5,033	5,454	8.4
Northeast Extension (Barrier)	1,126	1,191	5.7	5,900	6,815	15.5
Turnpike I-376	1,312	1,417	8.0	4,182	4,208	0.6
Turnpike I-576	195	285	46.2	534	729	36.4
Barrier Subtotal	5,917	6,433	8.7	42,655	46,744	9.6
Total System	28,297	29,344	3.7	$535,057	$577,114	7.9
			Total Vehicles			
Ticket and Gateway Barrier	156,250	155,810	(0.3)	$1,117,544	$1,160,697	3.9
Delaware River Bridge	8,065	8,969	11.2	57,625	63,525	10.2
Turnpike 43	12,892	13,552	5.1	24,063	25,947	7.8
Turnpike 66	7,413	7,584	2.3	16,288	17,043	4.6
Northeast Extension (Barrier)	5,384	5,673	5.4	10,148	11,630	14.6
Turnpike I-376	7,833	8,577	9.5	12,906	14,091	9.2
Turnpike I-576	1,676	1,885	12.5	1,869	2,415	29.2
Barrier Subtotal	43,264	46,239	6.9	122,899	134,650	9.6
Total System	199,514	202,050	1.3	$1,240,443	$1,295,348	4.4

(1) These 12 months correspond to the period for which actual data exists, but was estimated at the time of CDM Smith's 2018 Forecast Study.
(2) The assumed Findlay conversion date in the 2018 Forecast Study was the end of April 2018. Actual conversion ocurred in June 2018.

Despite actual tolled transaction and toll revenue values overperforming forecasted levels for all Barrier facilities, the total System forecast tracked relatively closely overall. This occurs because the vast majority of traffic and revenue is generated by the Ticket System. Several events occurred on the barrier plazas that influenced the high growth. These include AET conversion at the Northeast Extension Barrier Plazas, Beaver Valley, and the Findlay Connector. Also important was the Stage 1 opening of the I-95 interchange just west of the Delaware River Bridge. The impact of the Stage 1 completion was greater than that assumed in the 2018 Forecast Study. The recent trends for all facilities were considered when adjusting the short-term forecasts for this Bring Down Letter.

Estimated Traffic and Gross Toll Revenue

Updated traffic and gross toll revenue estimates were developed through FY 2048-49 incorporating the following changes into the forecast. All these changes were described in previous sections.

- Actual traffic and revenue experience through February 2019;
- Slightly adjusted short term (through 2022) growth forecasts based on the recent experience of actual traffic and revenue compared to assumptions in the 2018 Forecast Study;
- Revised estimates of E-ZPass penetration rates;
- AET conversion scheduled at AKH and Gateway for October 2019; and
- Slight decreases in long range normal growth rates for commercial vehicles from 2022 through the end of the forecast period.

Other assumptions remain unchanged from the 2018 Forecast Study including:

- Annual Systemwide toll rate increases;
- Structure of the commercial vehicle discount program; and
- Long range economic indicators.

Table 16 shows the total traffic and toll revenue for the Ticket System only. Data for FY 2016-17 and FY 2017-18 reflects a full year of actual experience and FY 2018-19 includes nine months of actual experience (through February 2019). Total toll transactions increase from 157.3 million to 194.3 million over the forecast period, an average annual increase of 0.7 percent. Gross toll revenue increases from $1,004.4 million to $4.2 billion by FY 2048-49. This amounts to an average annual increase of 4.6 percent, reflecting the impact of normal growth plus the annual rate adjustments.

Table 16

Ticket System: Estimated Annual Transactions and Gross Toll Revenue (1)

Pennsylvania Turnpike Commission

Traffic and Toll Revenue in Thousands

Fiscal Year		Annual Traffic: Passenger Cars	Annual Traffic: Commercial Vehicles	Annual Traffic: Total Vehicles	Annual Gross Toll Revenue: Passenger Cars	Annual Gross Toll Revenue: Commercial Vehicles	Annual Gross Toll Revenue: Total Vehicles
2016-17	(2,3,5)	135,128	22,179	157,307	$564,915	$439,495	$1,004,410
2017-18	(2)	134,127	22,577	156,704	599,384	482,376	1,081,760
2018-19	(4,6)	132,360	22,922	155,282	637,137	538,213	1,175,351
2019-20		131,225	23,118	154,343	670,587	574,230	1,244,817
2020-21		130,693	23,366	154,059	706,891	612,168	1,319,059
2021-22		130,817	23,600	154,418	741,516	648,592	1,390,108
2022-23		131,600	23,821	155,421	782,660	686,348	1,469,009
2023-24		132,766	24,032	156,799	828,208	725,242	1,553,450
2024-25		134,006	24,253	158,258	876,748	766,780	1,643,529
2025-26		135,481	24,493	159,973	926,005	808,389	1,734,394
2026-27		137,046	24,729	161,775	970,726	845,590	1,816,316
2027-28		138,580	24,948	163,528	1,012,261	879,566	1,891,826
2028-29		140,079	25,195	165,274	1,051,564	913,952	1,965,516
2029-30		141,548	25,486	167,034	1,091,994	952,249	2,044,243
2030-31		142,985	25,777	168,762	1,133,951	992,005	2,125,956
2031-32		144,409	26,067	170,476	1,178,775	1,033,276	2,212,051
2032-33		145,818	26,357	172,175	1,226,573	1,076,117	2,302,690
2033-34		147,178	26,647	173,825	1,275,772	1,120,590	2,396,362
2034-35		148,498	26,937	175,435	1,326,473	1,166,769	2,493,242
2035-36		149,781	27,227	177,009	1,378,732	1,214,723	2,593,455
2036-37		151,042	27,512	178,554	1,432,743	1,264,246	2,696,989
2037-38		152,219	27,789	180,007	1,487,947	1,315,252	2,803,199
2038-39		153,355	28,065	181,420	1,544,774	1,368,202	2,912,976
2039-40		154,475	28,343	182,817	1,603,514	1,423,173	3,026,687
2040-41		155,573	28,621	184,194	1,664,171	1,480,250	3,144,421
2041-42		156,645	28,900	185,545	1,726,760	1,539,518	3,266,278
2042-43		157,685	29,180	186,865	1,791,242	1,601,062	3,392,304
2043-44		158,698	29,461	188,159	1,857,745	1,664,977	3,522,722
2044-45		159,686	29,743	189,428	1,926,333	1,731,349	3,657,683
2045-46		160,645	30,026	190,671	1,997,034	1,800,267	3,797,301
2046-47		161,591	30,310	191,902	2,070,076	1,871,837	3,941,913
2047-48		162,525	30,596	193,121	2,145,565	1,946,173	4,091,738
2048-49		163,464	30,885	194,349	2,223,807	2,023,461	4,247,268

(1) Annual toll rate increases are implemented in January of each year.
(2) Reflects actual traffic and revenue experience.
(3) The Delaware River Bridge toll plaza was converted from part of the Ticket System to a one-way barrier AET facility in January 2016.
(4) Reflects actual experience through February 2019.
(5) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(6) The partial I-95 Interchange (Stage 1) opened in September 2018.

The same information is shown for the Barrier Systems in **Table 17**. Total annual toll transactions are estimated to grow from 43.2 million to 66.6 million over the forecast period, an average rate of 1.4 percent.

Barrier System total revenue is estimated to increase from $110.6 million to $535.9 million over the forecast period, an annual rate of 5.1 percent.

Table 18 identifies total combined transactions and gross toll revenue and also factors in estimated toll discounts and adjustments. The vast majority of the discounts and adjustments result from commercial account toll adjustments due to the Turnpike's volume discount program. The volume discount program allows for a 3.0 percent discount to be provided to accounts that accrue $20,000 or more in monthly tolls. Discounts and adjustments shown in Table 18 assume no further changes to the post-paid commercial volume discount program during the forecast period. The result is that the current forecasts have a negative adjustment applied for FY 2016-17 and beyond that equals approximately 1.4 percent of the commercial vehicle gross toll revenue.

As shown in Table 18, total toll transactions are expected to increase from nearly 200.5 million to 260.9 million over the forecast period. This amounts to an average annual growth rate of 0.8 percent. Total net toll revenue is estimated to grow from approximately $1.1 billion in FY 2016-17 to $4.8 billion by FY 2048-49. This reflects an average annual growth rate in gross toll revenue of 4.7 percent. Again, this includes the impact of normal growth plus annual toll rate adjustments.

Table 19 provides a comparison of the current traffic and net toll revenue forecast with the forecast developed as part of the 2018 Forecast Study. As shown, the revised total toll transactions slightly exceed those of the 2018 Forecast report through FY 2021-22. This is because recent experience has shown that actual toll transactions have exceeded estimates by about 1.3 percent (see Table 15). CDM Smith slowly decreased future commercial vehicle growth over time, such that by FY 2022-23, we now estimate that total toll transactions will be about 0.5 percent lower than the previous estimates.

Beginning in FY 2018-19 (which includes nine months of actual data) through FY 2021-22 the new toll revenue forecasts are between 4.0 and 4.6 percent greater than those from the 2018 Forecast Study. As shown in Table 15, actual toll revenue over the last 12 months has exceeded CDM Smith's forecasts by 4.4 percent. The slightly lower long-term growth rates reduce the positive impact of the new revenue forecasts to 2.7 percent by the outer years of the forecast. Unlike with the traffic forecasts, the new revenue forecasts remain higher than the previous forecasts over the entire forecast period. This is because the average toll rates for commercial vehicles is now higher than previously assumed. This occurs because of the lower E-ZPass market share assumptions for commercial vehicles at recently converted AET facilities over the forecast period.

Table 17

Barrier Systems: Estimated Annual Transactions and Gross Toll Revenue (1)

Pennsylvania Turnpike Commission

Traffic and Toll Revenue in Thousands

		Annual Traffic			Annual Gross Toll Revenue		
Fiscal Year		Passenger Cars	Commercial Vehicles	Total Vehicles	Passenger Cars	Commercial Vehicles	Total Vehicles
2016-17	(2,3,5)	37,671	5,524	43,195	$73,872	$36,694	$110,566
2017-18	(2,6)	38,385	6,073	44,459	79,357	42,042	121,399
2018-19	(4,7,8)	40,285	6,483	46,769	91,843	47,862	139,705
2019-20	(9)	40,635	6,564	47,199	102,331	51,811	154,142
2020-21		40,405	6,636	47,041	108,561	55,615	164,176
2021-22	(10)	42,203	7,090	49,293	115,219	59,920	175,139
2022-23		45,467	7,828	53,295	124,119	64,916	189,035
2023-24		46,553	8,042	54,595	131,671	68,988	200,659
2024-25		47,518	8,225	55,743	139,663	73,254	212,917
2025-26		48,321	8,361	56,682	147,628	77,395	225,023
2026-27		49,039	8,469	57,509	154,926	81,072	235,998
2027-28		49,536	8,529	58,065	161,581	84,335	245,916
2028-29		50,023	8,598	58,621	167,996	87,613	255,609
2029-30		50,473	8,681	59,154	174,555	91,226	265,781
2030-31		50,901	8,762	59,663	181,263	94,967	276,230
2031-32		51,312	8,842	60,154	188,134	98,848	286,982
2032-33		51,709	8,922	60,632	195,209	102,874	298,083
2033-34		52,089	9,002	61,090	202,479	107,048	309,527
2034-35		52,459	9,081	61,540	210,020	111,380	321,400
2035-36		52,816	9,160	61,975	217,878	115,875	333,753
2036-37		53,156	9,238	62,393	226,002	120,524	346,526
2037-38		53,483	9,314	62,798	234,333	125,323	359,656
2038-39		53,808	9,391	63,199	242,928	130,304	373,232
2039-40		54,118	9,468	63,586	251,801	135,475	387,276
2040-41		54,404	9,545	63,949	260,942	140,817	401,759
2041-42		54,682	9,621	64,303	270,389	146,317	416,706
2042-43		54,952	9,697	64,649	280,123	152,006	432,129
2043-44		55,213	9,773	64,986	290,150	157,904	448,055
2044-45		55,468	9,848	65,316	300,482	164,018	464,500
2045-46		55,715	9,923	65,638	311,118	170,355	481,473
2046-47		55,954	9,998	65,951	322,081	176,923	499,004
2047-48		56,188	10,072	66,260	333,390	183,732	517,121
2048-49		56,423	10,147	66,570	345,095	190,803	535,898

(1) Annual toll rate increases are implemented in January of each year.
(2) Reflects actual traffic and revenue experience.
(3) The Delaware River Bridge toll plaza was converted from part of the Ticket System to a one-way barrier AET facility in January 2016.
(4) Reflects actual experience through February 2019.
(5) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(6) The two Northeast Extension Barrier Plazas were converted to AET at the end of April 2018.
(7) The Findlay Connector converted to AET in early June 2018.
(8) The partial I-95 Interchange (Stage 1) opened in September 2018.
(9) Assumes AKH and Gateway will convert to AET at the end of October 2019.
(10) Reflects opening of Southern Beltway between US 22 and I-79 beginning in January 2022.

Table 18

Total System: Estimated Annual Transactions and Gross Toll Revenue (1)

Pennsylvania Turnpike Commission

Traffic and Toll Revenue in Thousands

Fiscal Year		Annual Traffic: Passenger Cars	Annual Traffic: Commercial Vehicles	Annual Traffic: Total Vehicles	Annual Gross Toll Revenue: Passenger Cars	Annual Gross Toll Revenue: Commercial Vehicles	Annual Gross Toll Revenue: Total Vehicles	Discounts and Adjustments	Net Toll Revenue
2016-17	(2,3,5)	172,799	27,703	200,501	$638,787	$476,188	$1,114,975	($3,915)	$1,111,061
2017-18	(2,6)	172,512	28,650	201,162	678,741	524,418	1,203,158	(6,552)	1,196,606
2018-19	(4,7,8)	172,645	29,406	202,051	728,980	586,075	1,315,056	(8,334)	1,306,722
2019-20	(9)	171,860	29,682	201,542	772,918	626,041	1,398,959	(8,902)	1,390,057
2020-21		171,098	30,002	201,100	815,452	667,783	1,483,235	(9,496)	1,473,739
2021-22	(10)	173,021	30,690	203,711	856,735	708,513	1,565,247	(10,075)	1,555,172
2022-23		177,067	31,649	208,716	906,779	751,265	1,658,044	(10,683)	1,647,361
2023-24		179,320	32,074	211,394	959,879	794,229	1,754,108	(11,294)	1,742,814
2024-25		181,523	32,478	214,001	1,016,411	840,034	1,856,445	(11,945)	1,844,500
2025-26		183,801	32,854	216,655	1,073,633	885,784	1,959,417	(12,596)	1,946,821
2026-27		186,085	33,198	219,283	1,125,652	926,662	2,052,314	(13,177)	2,039,137
2027-28		188,116	33,477	221,593	1,173,841	963,901	2,137,743	(13,707)	2,124,036
2028-29		190,102	33,793	223,895	1,219,560	1,001,566	2,221,126	(14,242)	2,206,883
2029-30		192,022	34,167	226,188	1,266,549	1,043,475	2,310,025	(14,838)	2,295,186
2030-31		193,886	34,538	228,424	1,315,214	1,086,972	2,402,186	(15,457)	2,386,729
2031-32		195,721	34,909	230,630	1,366,908	1,132,124	2,499,032	(16,099)	2,482,933
2032-33		197,527	35,279	232,806	1,421,783	1,178,990	2,600,773	(16,765)	2,584,008
2033-34		199,267	35,649	234,916	1,478,251	1,227,639	2,705,889	(17,457)	2,688,432
2034-35		200,958	36,018	236,976	1,536,493	1,278,149	2,814,642	(18,175)	2,796,466
2035-36		202,597	36,387	238,984	1,596,610	1,330,598	2,927,208	(18,921)	2,908,287
2036-37		204,198	36,750	240,948	1,658,745	1,384,770	3,043,515	(19,691)	3,023,823
2037-38		205,702	37,103	242,805	1,722,281	1,440,575	3,162,855	(20,485)	3,142,370
2038-39		207,163	37,456	244,619	1,787,702	1,498,506	3,286,208	(21,309)	3,264,899
2039-40		208,593	37,810	246,403	1,855,315	1,558,648	3,413,963	(22,164)	3,391,799
2040-41		209,977	38,165	248,142	1,925,113	1,621,067	3,546,180	(23,052)	3,523,128
2041-42		211,328	38,521	249,849	1,997,149	1,685,835	3,682,984	(23,973)	3,659,011
2042-43		212,637	38,877	251,513	2,071,365	1,753,068	3,824,434	(24,929)	3,799,505
2043-44		213,911	39,233	253,145	2,147,895	1,822,881	3,970,776	(25,921)	3,944,855
2044-45		215,154	39,591	254,745	2,226,815	1,895,368	4,122,183	(26,952)	4,095,230
2045-46		216,360	39,949	256,309	2,308,152	1,970,622	4,278,774	(28,022)	4,250,751
2046-47		217,545	40,308	257,853	2,392,157	2,048,760	4,440,917	(29,133)	4,411,783
2047-48		218,713	40,668	259,381	2,478,954	2,129,905	4,608,859	(30,287)	4,578,572
2048-49		219,887	41,032	260,919	2,568,902	2,214,264	4,783,165	(31,487)	4,751,678

(1) Annual toll rate increases are implemented in January of each year.
(2) Reflects actual traffic and revenue experience.
(3) The Delaware River Bridge toll plaza was converted from part of the Ticket System to a one-way barrier AET facility in January 2016.
(4) Reflects actual experience through February 2019.
(5) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(6) The two Northeast Extension Barrier Plazas were converted to AET at the end of April 2018.
(7) The partial I-95 Interchange (Stage 1) opened in September 2018.
(8) The Findlay Connector converted to AET in early June 2018.
(9) Assumes AKH and Gateway will convert to AET at the end of October 2019.
(10) Reflects opening of Southern Beltway between US 22 and I-79 beginning in January 2022.

Table 19
Comparison of New Traffic and Revenue
Estimates with those from the 2018 Forecast Study
Pennsylvania Turnpike

Traffic and Toll Revenue in Thousands

Fiscal Year		Total Annual Transactions: Current Estimates	2018 IG Study	Percent Difference	Total Annual Adjusted Gross Toll Revenue: Current Estimates	2018 IG Study	Percent Difference
2016-17	(1,2)	200,501	200,501	0.0	$1,111,061	$1,111,061	0.0
2017-18	(2)	201,162	200,527	0.3	1,196,606	1,184,080	1.1
2018-19	(3)	202,051	199,225	1.4	1,306,722	1,250,929	4.5
2019-20		201,542	199,024	1.3	1,390,057	1,329,382	4.6
2020-21		201,100	199,574	0.8	1,473,739	1,410,906	4.5
2021-22		203,711	203,467	0.1	1,555,172	1,495,468	4.0
2022-23		208,716	209,703	(0.5)	1,647,361	1,589,229	3.7
2023-24		211,394	212,402	(0.5)	1,742,814	1,684,343	3.5
2024-25		214,001	215,027	(0.5)	1,844,500	1,785,814	3.3
2025-26		216,655	217,707	(0.5)	1,946,821	1,888,350	3.1
2026-27		219,283	220,362	(0.5)	2,039,137	1,981,635	2.9
2027-28		221,593	222,700	(0.5)	2,124,036	2,068,126	2.7
2028-29		223,895	225,001	(0.5)	2,206,883	2,151,047	2.6
2029-30		226,188	227,245	(0.5)	2,295,186	2,236,615	2.6
2030-31		228,424	229,436	(0.4)	2,386,729	2,325,657	2.6
2031-32		230,630	231,603	(0.4)	2,482,933	2,419,605	2.6
2032-33		232,806	233,745	(0.4)	2,584,008	2,517,943	2.6
2033-34		234,916	235,826	(0.4)	2,688,432	2,619,547	2.6
2034-35		236,976	237,857	(0.4)	2,796,466	2,724,656	2.6
2035-36		238,984	239,842	(0.4)	2,908,287	2,833,400	2.6
2036-37		240,948	241,788	(0.3)	3,023,823	2,945,731	2.7
2037-38		242,805	243,628	(0.3)	3,142,370	3,060,971	2.7
2038-39		244,619	245,424	(0.3)	3,264,899	3,180,057	2.7
2039-40		246,403	247,204	(0.3)	3,391,799	3,303,400	2.7
2040-41		248,142	248,959	(0.3)	3,523,128	3,431,090	2.7
2041-42		249,849	250,681	(0.3)	3,659,011	3,563,210	2.7
2042-43		251,513	252,362	(0.3)	3,799,505	3,699,804	2.7
2043-44		253,145	254,010	(0.3)	3,944,855	3,841,108	2.7
2044-45		254,745	255,627	(0.3)	4,095,230	3,987,289	2.7
2045-46		256,309	257,208	(0.3)	4,250,751	4,138,460	2.7
2046-47		257,853	258,770	(0.4)	4,411,783	4,294,979	2.7
2047-48		259,381	260,315	(0.4)	4,578,572	4,457,089	2.7

(1) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(2) Reflects actual traffic and revenue experience.
(3) Reflects actual experience through February 2019.

Additional reason for continued increased toll revenue relate to the I-95 Stage 1 interchange opening in September 2018; this brought in more revenue than expected. The Northeast Extension Barrier Facilities and the Findlay Connector AET conversion also changed the vehicle classification systems at these facilities, which raised average toll rates.

* * *

Fiduciary Disclaimer

Current accepted professional practices and procedures were used in the development of these updated traffic and revenue forecasts. However, as with any forecast of the future, there may be differences between forecasted and actual results caused by events and circumstances beyond the control of CDM Smith. In formulating its forecasts, CDM Smith has reasonably relied upon the accuracy and completeness of information provided (both written and oral) by the PTC and other local and state agencies. CDM Smith also has relied upon the reasonable assurances of some independent parties and is not aware of any facts that would make such information misleading.

CDM Smith has made qualitative judgments related to several key variables in the development and analysis of the traffic and revenue forecasts that must be considered as a whole; therefore selecting portions of any individual result without consideration of the intent of the whole may create a misleading or incomplete view of the results and the underlying methodologies used to obtain the results. CDM Smith gives no opinion as to the value or merit to partial information extracted from this report.

All forecasts and projections reported herein are based on CDM Smith's experience and judgment and on a review of information obtained from multiple state and local agencies, including the PTC. These estimates and projections may not be indicative of actual or future values, and are therefore subject to substantial uncertainty. Future developments cannot be predicted with certainty, and may affect the forecasts or projections expressed in this report, such that CDM Smith does not specifically guarantee or warrant any forecasts or projections contained within this report.

While CDM Smith believes that some of the projections or other forward-looking statements contained within the report are based on reasonable assumptions as of the date in the report, such forward-looking statements involve risks and uncertainties that may cause actual results to differ materially from the results predicted. Therefore, following the date of this report, CDM Smith will take no responsibility or assume any obligation to advise of changes that may affect its assumptions contained within the report, as they pertain to: socioeconomic and demographic forecasts, proposed residential or commercial land use development projects and/or potential improvements to the regional transportation network.

CDM Smith is not, and has not been, a municipal advisor as defined in Federal law (the Dodd Frank Bill) to the PTC and does not owe a fiduciary duty pursuant to Section 15B of the Exchange Act to PTC with respect to the information and material contained in this report. CDM Smith is not recommending and has not recommended any action to PTC. PTC should discuss the information and material contained in this report with any and all internal and external advisors that it deems appropriate before acting on this information.

*   *   *

Sincerely,

Robert W Pintar Jr.

Robert Pintar, P.E.
Vice President
CDM Smith Inc.

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Pennsylvania Turnpike 2018 Traffic and Revenue Forecast Study

April 2018

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Pennsylvania Turnpike Commission

CDM Smith

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Chapter 1

Introduction

This report summarizes the analyses conducted by CDM Smith in developing updated traffic and toll revenue estimates for the various toll facilities operated by the Pennsylvania Turnpike Commission (PTC). CDM Smith forecasts have been used by PTC for more than 20 years in support of the issuance of bond financing and for internal financial planning. In light of the current economic climate, it is more important than ever to have up-to-date traffic and revenue forecasts based on the most current information available.

CDM Smith last developed a detailed investment grade traffic and toll revenue study in March 2015. Since that time additional “bring down” letters have also been developed to update forecasts developed in the 2015 Study. Bring down letters were developed in March 2016 and May 2017. The purpose of a bring down letter is to update actual traffic and revenue experience since the last study and to adjust short term (2 to 5 year) forecasts based on recent trends. Detailed economic analyses are not conducted as part of a bring down letter and therefore longer-term forecasts are not adjusted from those originally developed as part of the latest investment grade study.

This current study included a comprehensive evaluation of the most currently available long term socioeconomic forecasts, and is, therefore, meant to be an update of the March 2015 investment grade study. This forecast includes updated long-term traffic and revenue forecasts through FY 2047-48. PTC’s most recent assumptions regarding future toll rate increases, discount levels for the Commercial Volume Discount Program, and future committed capital improvements have been incorporated into this study. CDM Smith also developed and incorporated estimates of future year E-ZPass penetration for cars and trucks on the PTC’s toll facilities.

PTC has been studying the possible implementation of all electronic tolling (AET) on its facilities. CDM Smith has been a member of the study team analyzing both the potential traffic and toll revenue impacts as well as the potential capital, and maintenance and operating (M&O) cost impacts AET may have on the Turnpike System. AET was implemented on the Delaware River Bridge (plaza 359) in January 2016, and on the Beaver Valley Expressway in May 2017. The traffic and revenue forecasts included in this study also assume the implementation of AET on the Northeast Extension barrier toll plazas, and on the Southern Beltway, both in late April 2018. Over time, all remaining toll facilities will be converted to AET, but toll rates have not yet been set. It is assumed that all future AET conversions will be net revenue neutral.

1.1 Report Structure

This report is comprised of four chapters, including the following:

Chapter 1: Introduction
Chapter 2: Turnpike Characteristics
Chapter 3: Socioeconomic Trends and Forecasts
Chapter 4: Transaction and Toll Revenue Forecasts

The following is a brief description of each chapter following this introduction.

Chapter 2 (Turnpike Characteristics) provides a review of monthly and annual transaction and toll revenue trends. Data are provided for passenger cars and commercial vehicles separately. Information is provided for the entire Turnpike System as well as for each of the individual toll facilities (Ticket System, Turnpike 43, etc.) that make up the Turnpike System. E-ZPass market share trends, historical toll rate adjustments, and changes to the Commercial Volume Discount Program are also summarized in Chapter 2.

Chapter 3 (Socioeconomic Trends and Forecasts) summarizes trends and forecasts in key socioeconomic variables, including population, employment, retail sales, and gross regional product. This data is broken down (at a county level) to reflect the actual market share for the various interchanges on the Turnpike System. Pennsylvania statewide data, as well as data for surrounding states and the United States, are also provided for each of these variables. Trends and forecasts in motor fuel prices are also covered in this chapter. The methodology used to estimate future traffic growth is described in detail. The ultimate product of Chapter 3 is a table showing the assumed normal growth rates used to develop traffic and toll revenue estimates for passenger cars and commercial vehicles for each Turnpike toll facility.

Chapter 4 (Transaction and Toll Revenue Forecasts) begins with a review of the assumed roadway improvement program for the Pennsylvania Turnpike. Planned toll rate adjustments throughout the 30-year forecast period are identified. Because of the toll differential that now exists between cash and E-ZPass, assumptions regarding future E-ZPass market share are important. All assumptions regarding E-ZPass market share throughout the forecast period are discussed in this chapter. Finally, estimates of traffic and gross toll revenue are provided through FY 2047-48. Forecasts are provided for passenger cars and commercial vehicles, for both the Ticket System and the total Barrier System, as well as for the total Turnpike System. Lastly, adjustments are made to the toll revenue forecasts to accounting for video bad debt expenses. Video bad debt expenses is the term PTC uses to describe the portion of toll by plate invoices that are not paid. This is associated with the implementation of AET on the Delaware River Bridge, the Beaver Valley Expressway, the Northeast Extension barrier toll plazas, and the Southern Beltway.

Chapter 2

Turnpike Characteristics

This chapter presents historical transaction and gross toll revenue trends on the Turnpike facilities. It also presents actual trends in the E-ZPass market share and historical toll increases. A comparison is presented between the current Turnpike per-mile toll rate on the Mainline I-76/I-276 and other toll road facilities. Lastly, the PTC's Commercial Volume Discount Program is described.

2.1 The Pennsylvania Turnpike Facilities

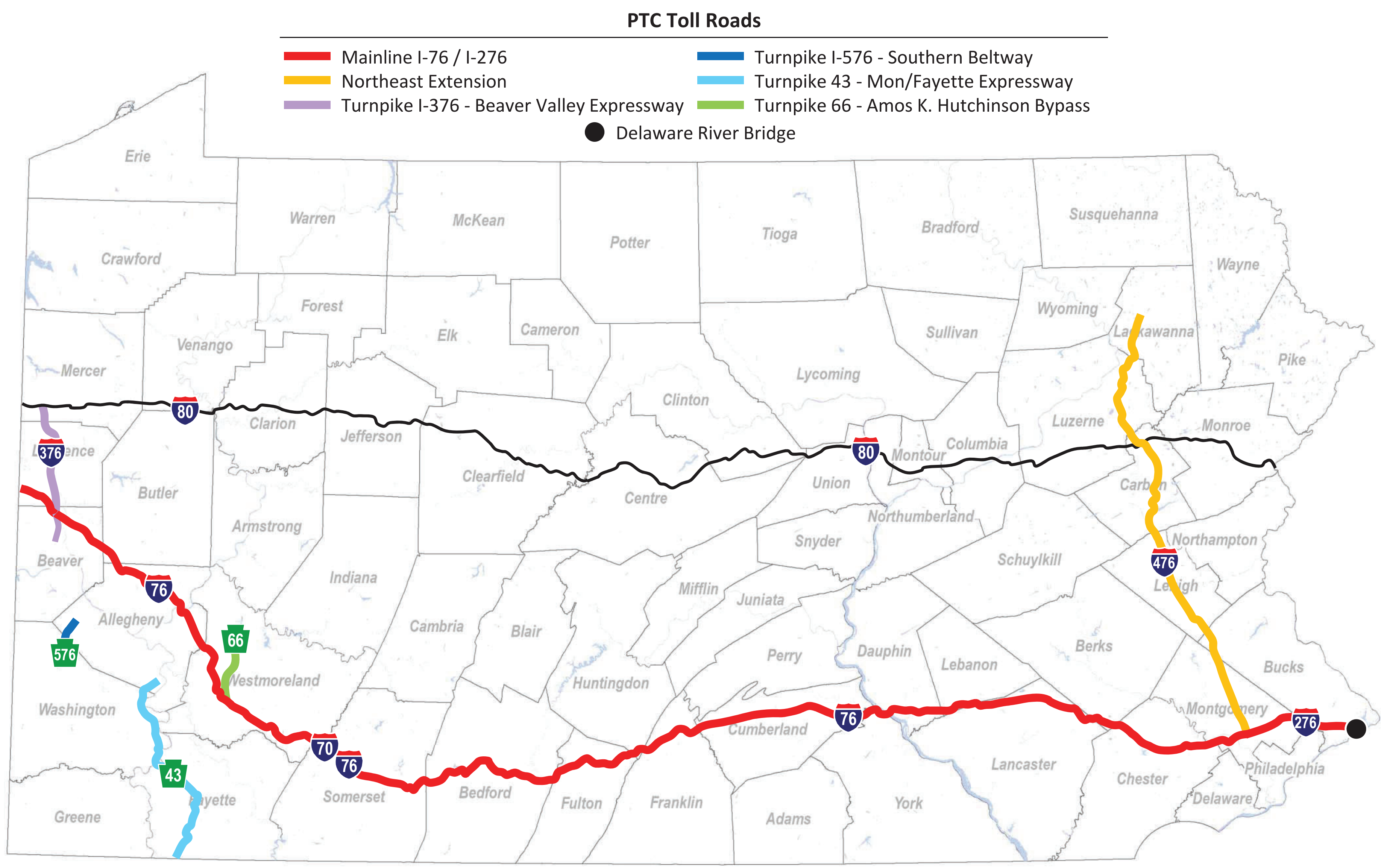
Figure 2-1 provides an overview of the Turnpike System, identifying each of its six toll facilities:

1. Mainline I-76/-276 from Ohio to New Jersey (359 miles) – This description includes the barrier plazas Gateway and Delaware River Bridge.
2. Northeast Extension I-476 (110 miles) – This includes the Clarks Summit and Keyser Avenue barrier plazas.
3. Turnpike 43 – Mon/Fayette Expressway (48 miles)
4. Turnpike 66 – Amos K. Hutchinson Bypass (13 miles)
5. Turnpike I-376 – Beaver Valley Expressway (16 miles)
6. Turnpike I-576 - Southern Beltway – Findlay Connector Section (6 miles)

There are two toll collection systems on the Turnpike System; a Ticket System, and a Barrier System. The Ticket System is comprised of the majority of Mainline I-76/I-276 (from Interchange 30, Warrendale, in western Pennsylvania to Interchange 353, Neshaminy Falls, near the New Jersey border) and the majority of the Northeast Extension (from Interchange 20, Mid-County, to Interchange 131, Wyoming Valley). On the Ticket System, the toll rate is charged by the individual movement on the toll road. The motorist picks up a ticket when entering the Ticket System and pays for the trip upon exiting the Ticket System.

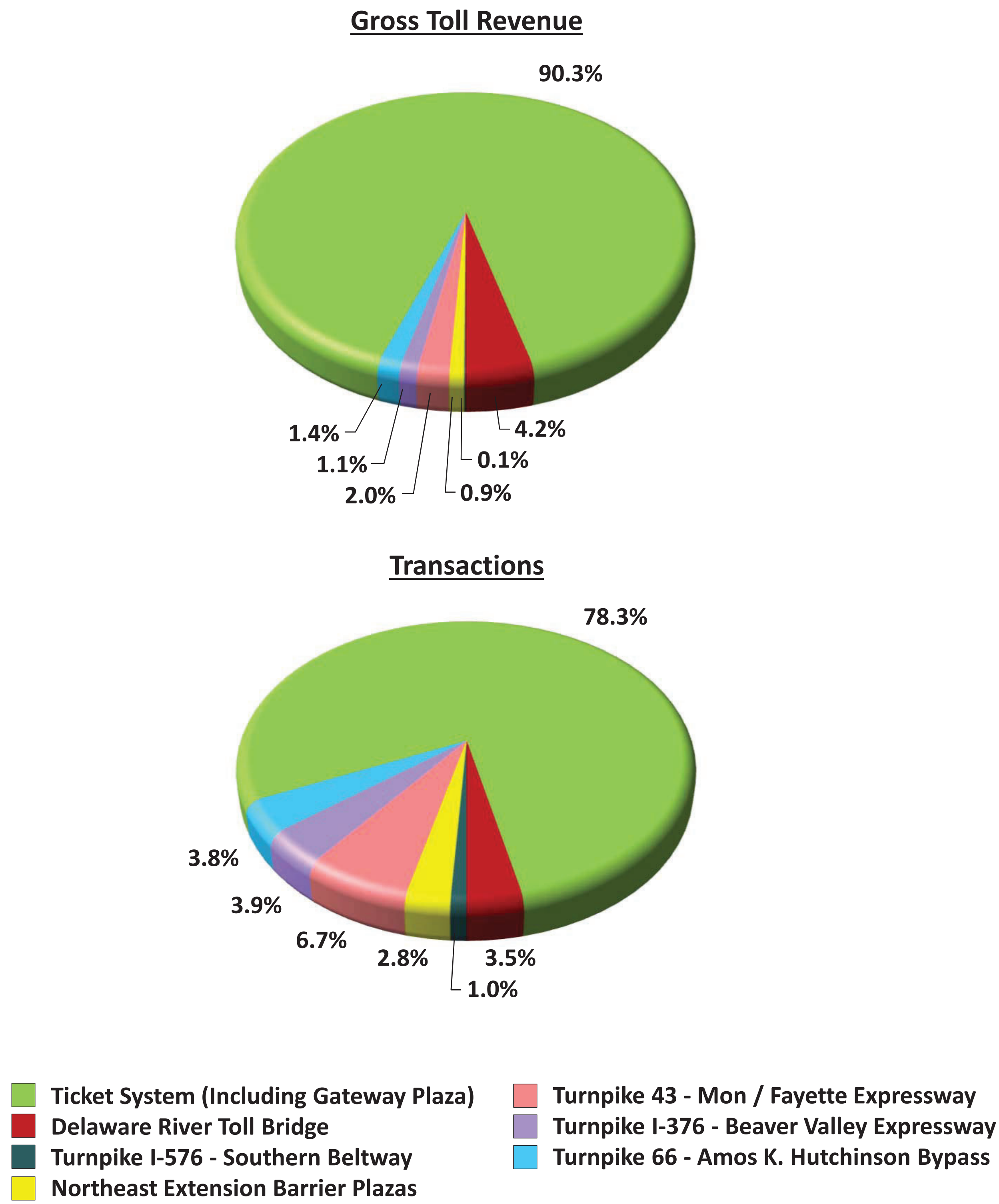
The Barrier System is comprised of Turnpikes I-376 (Beaver Valley Expressway), Turnpike 66 (Amos K. Hutchinson Bypass), Turnpike 43 (Mon/Fayette Expressway) and Turnpike I-576 (Southern Beltway). There are also two barrier plazas on the Mainline I-76/I-276; Gateway (Plaza 2) and the Delaware River Bridge (DRB) (plaza 359). Both Gateway and DRB were converted from Ticket System plazas to Barrier System plazas; DRB in January 2016, and Gateway in June 2003. At Barrier plazas, a defined toll rate is charged for each vehicle class and payment type. The toll is not dependent on a trip.

The Ticket System is by far the largest component of the Turnpike System. As seen in Figure 2-2, the Ticket System accounted for 90.3% of the Turnpike System's total gross toll revenue, and 78.3% of the total transactions in calendar year 2017. Fixed barrier locations accounted for only 9.7% of gross toll revenue and 21.7% of transactions.



PENNSYLVANIA TURNPIKE COMMISSION (PTC) TOLL ROAD FACILITIES

FIGURE 2-1



PERCENT OF CALENDAR YEAR 2017 TRANSACTIONS AND GROSS TOLL REVENUE BY FACILITY

FIGURE 2-2

2.2 Toll Rates and Commercial Volume Discount Program

2.2.1 Payment Options

Various payment options are available on the PTC's toll facilities. Most of the Turnpike System accepts payment by electronic toll collection (ETC) via an E-ZPass transponder, and by cash or credit card. A few toll plazas accept only E-ZPass transactions. A recent development, initiated in 2016, is the conversion of some facilities or plazas to All Electronic Tolling (AET). AET facilities or toll locations accept payment through E-ZPass or by a License Plate Tolling system called Toll By Plate (TBP). Traditional cash customers passing through an AET tolling location receive a Toll By Plate invoice. E-ZPass customers are be billed as usual. There are no physical toll plazas on AET facilities. Transactions are identified either by an E-ZPass transponder or by the video capture of a license plate. Toll collection equipment is located on gantries, near or over the roadway. The following toll locations or facilities were converted to AET since 2016:

- Delaware River Bridge (Plaza 359) in January 2016
- Beaver Valley Expressway in May 2017

2.2.2 Historical Toll Rate Increases and E-ZPass/Cash Toll Differential

Since 2009, the PTC has implemented annual toll rate increases on, or close to January 1. Prior to 2009, toll rates were increased at irregular intervals. Table 2-1 shows the toll rate since 1987. The rate increases were generally systemwide, with a few exceptions, as noted.

Table 2-1
Historical Toll Rate Increases
Pennsylvania Turnpike

Date	Percent Increase Cash/TBP	Percent Increase E-ZPass	Comment
1/2/1987	40.0	NA	E-ZPass was not implemented until 2001
6/1/1991	32.0	NA	E-ZPass was not implemented until 2001
8/1/2004	42.5	42.5	
1/4/2009	25.0	25.0	No increase on Turnpike I-576 or Turnpike 43 between Uniontown and Brownsville
1/3/2010	3.0	3.0	No increase on Turnpike I-576
1/2/2011	10.0	3.0	No increase on Turnpike I-576
1/1/2012	10.0	0.0	No increase on Turnpike I-576
1/6/2013	10.0	2.0	
1/5/2014	12.0	2.0	No increase on Turnpike I-576
1/4/2015	5.0	5.0	No increase on Turnpike I-576
1/3/2016	6.0	6.0	No increase on Turnpike I-576
1/8/2017	6.0	6.0	No increase on Turnpike I-576 or Delaware River Bridge (Plaza 359)
1/7/2018	6.0	6.0	No increase on Turnpike I-576 or Delaware River Bridge (Plaza 359)

E-ZPass was phased in beginning in 2001. Initially, E-ZPass tolls and cash tolls were identical, but in 2011, cash tolls were increased by 10.0% over 2010, and E-ZPass tolls were increased by 3.0%, creating a toll differential between the two methods of payment. In 2011, cash tolls were about 7%

greater than E-ZPass tolls. The toll differential was increased through 2014, when the cash toll was about 40% more than the E-ZPass toll. This percent differential has been maintained through 2018. The toll rate differential between E-ZPass and cash incentivizes E-ZPass participation.

The PTC plans to continue annual toll rate increases through the forecast period, and the toll rate increases will be the same for E-ZPass and cash/TBP. The planned annual rate increases are shown in Table 4-2.

2.2.3 Per-Mile Toll Rates

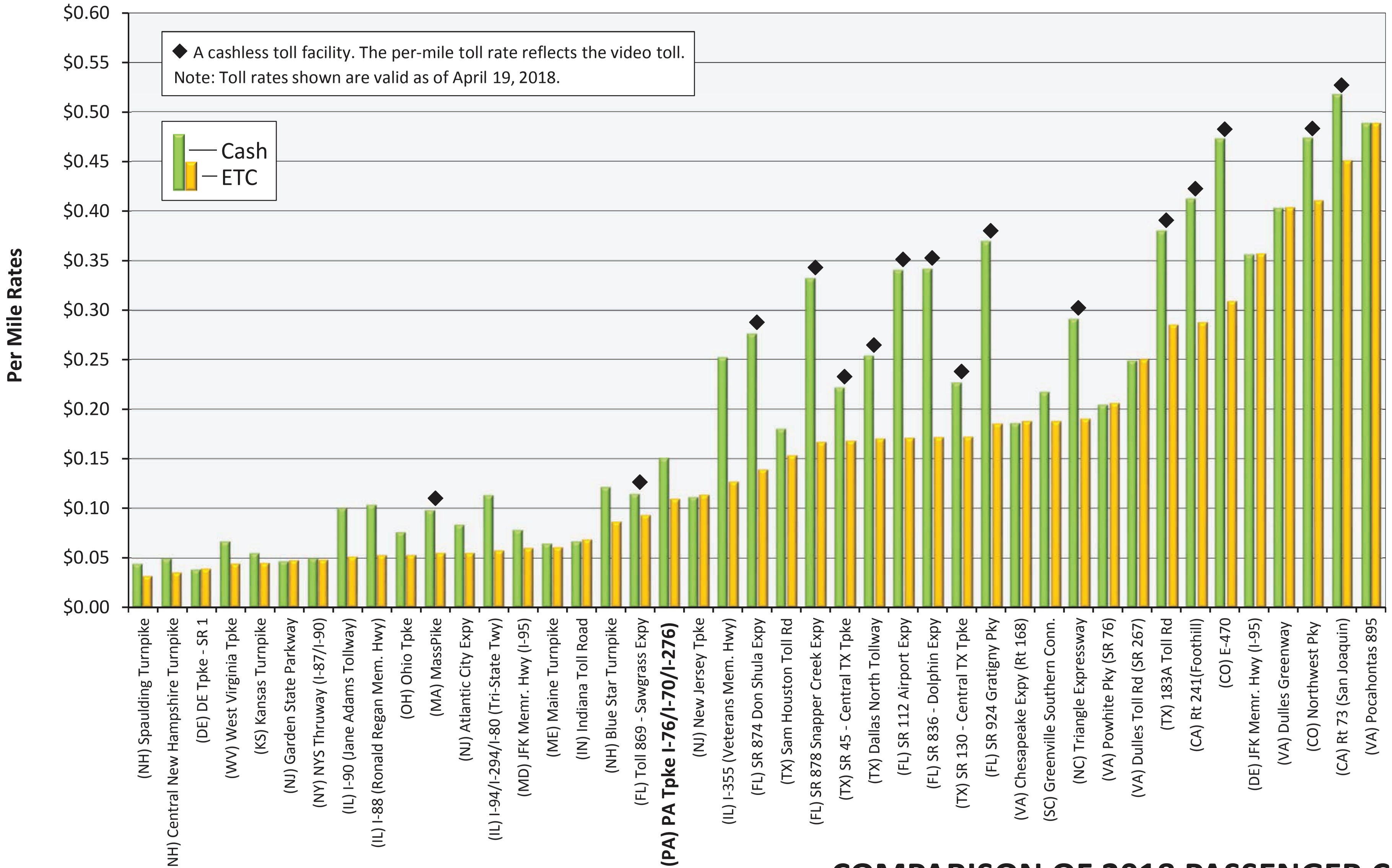
In 2018, a passenger car using cash pays $0.15 per-mile to travel the length of the Mainline, from the Delaware River Bridge through Gateway compared to $0.11 per mile for the same trip using E-Zpass. Figure 2-3 compares 2018 passenger-car per-mile toll rates for a through trip on 44 U.S. toll facilities. The Pennsylvania Turnpike is represented by a through trip on the Mainline I-76/I-276 from Delaware River Bridge through Gateway, which is shown in bold text. The per-mile rates are provided for ETC and cash payments. If the facility is AET, the license plate or video per-mile toll is represented in the cash column. The data is sorted from low to high by the ETC per-mile toll rates. A through trip on the Pennsylvania Mainline I-76/I-276 by a passenger car paying by ETC costs $0.11 per mile, which is comparable to $0.11 per mile on the New Jersey Turnpike.

Figure 2-4 presents a similar comparison of five-axle commercial-vehicle per-mile toll rates for through trips on the same 43 U.S. toll facilities. A trip on the Pennsylvania Mainline I-76/I-276 costs $0.58 per mile for E-ZPass compared to $0.41 on the New Jersey Turnpike in 2018.

Figures 2-3 and 2-4 show the 2018 per-mile rate on the PA Turnpike System falls approximately in the middle of the 43 U.S. toll facilities.

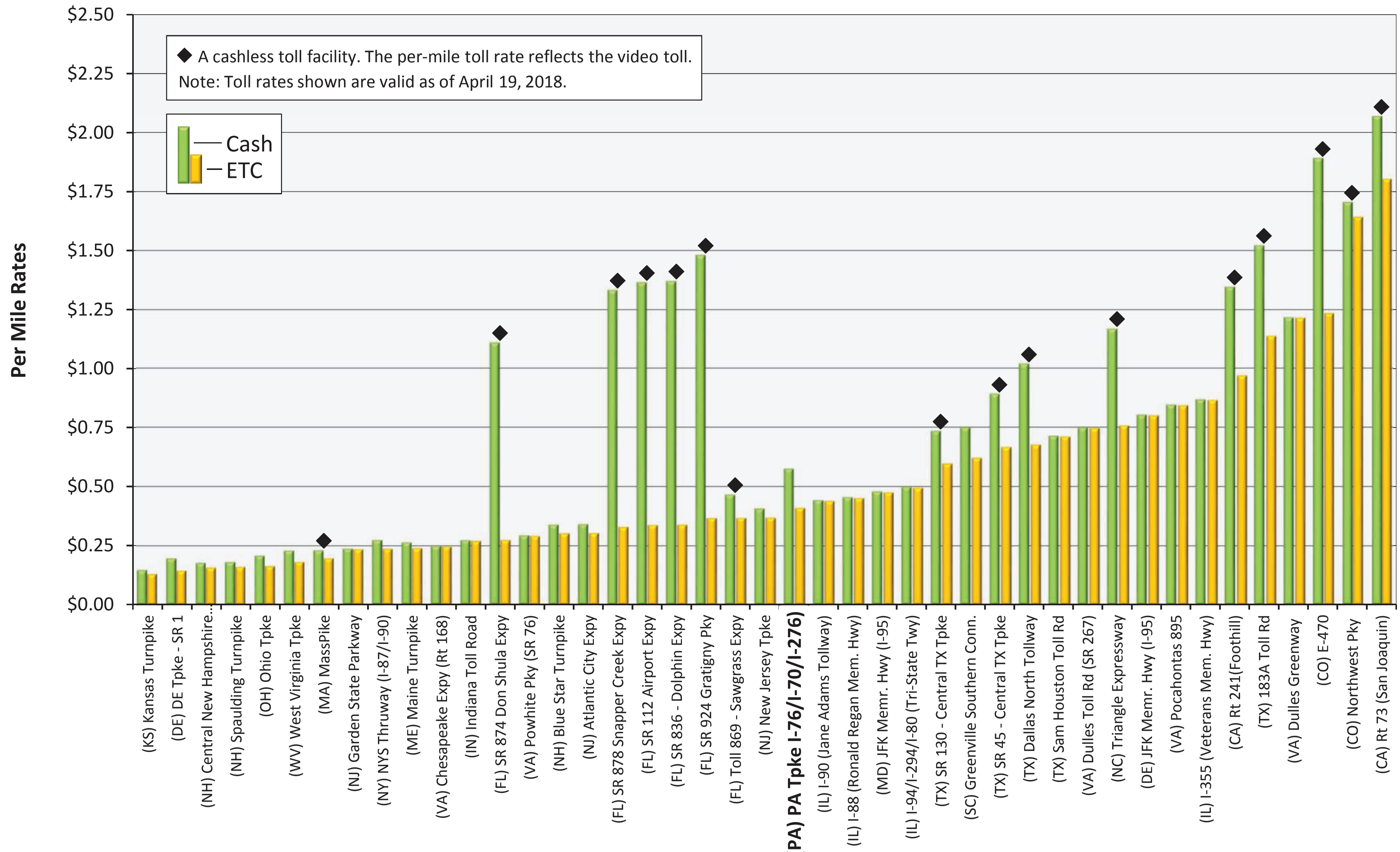
2.2.4 Commercial Volume Discount Program

The PTC operates a Commercial Volume Discount Program. Prior to the implementation of system wide toll rates favorable to E-ZPass customers, a post-paid, commercial volume-discount program was established for high-volume, commercial E-ZPass accounts. Post-paid commercial E-ZPass customers could receive the varying levels of discounts based on the amount of their monthly tolls. With the implementation of E-ZPass and the large toll savings offered to E-ZPass customers, the Commercial Volume Discount Program was modified over the years. Currently, in 2018, commercial accounts that accrue greater than $20,000.00 per month on tolls receive a three percent discount.



COMPARISON OF 2018 PASSENGER CAR PER-MILE THROUGH TRIP TOLL RATES (DATA SORTED BY ETC TOLL RATES)

FIGURE 2-3



COMPARISON OF 2018 FIVE-AXLE VEHICLE PER-MILE THROUGH TRIP TOLL RATES (DATA SORTED BY ETC TOLL RATES)

FIGURE 2-4

2.3 Annual Transaction Trends by Plaza

This section presents long-term annual transaction trends on the Ticket and Barrier Systems by toll plaza. Data is provided from 2003 through 2017 for Ticket and Barrier System toll plazas.

2.3.1 Ticket System Transaction Trends

Average annual daily transactions at the Ticket System's exiting toll plazas are shown in Tables 2-2 through 2-4 for passenger cars, commercial vehicles and total vehicles, respectively. The transactions include both revenue and non-revenue vehicles. Gateway (plaza 2) transactions are included in this table.

Some important changes occurred on the Ticket System that are reflected in the tables. In January 2016, the eastern terminus of the Ticket System was changed from the existing Delaware River Bridge (plaza 359) to the new Neshaminy Falls (plaza 353). Tolled transactions at Neshaminy Falls are collected in the eastbound direction, exiting the Ticket System, and are reported as part of the Ticket System. When Neshaminy Falls opened, the DRB was converted from the Ticket system to a barrier plaza with toll collection in the westbound direction. DRB transactions were counted under the Ticket System until January 2016, when they were reported on the Barrier System. Associated with moving the Ticket System's eastern terminus to Neshaminy Falls, toll collection was ended at Delaware Valley (plaza 358).

It should be noted that the Delaware River Bridge (plaza 359) was closed from January 20 through March 9, 2017 due to a fracture in one of the structural support beams. Although the DRB is on the Barrier System, the closure also negatively affected Ticket System traffic and revenue in January, February, and March 2017.

New access to the Ticket System is also shown in Tables 2-2 through 2-4. Since 2004, four new interchanges opened on the Ticket System; Virginia Drive (Milepost 340) in 2002, Street Road (Milepost 352) in 2010, SR 29 (Milepost 320) in 2012, and Route 903 (Milepost 87) in 2015. These were opened as E-ZPass-only interchanges. No cash is accepted.

In Tables 2-2 through 2-4, transaction trends are summarized by average annual growth rates into the following three periods:

1) The 5-year period from 2007-2012,
2) The 5-year period from 2012-2017, and
3) The 14-year period from 2003-2017.

Passenger-car transaction growth, shown in Table 2-2, averaged 0.3% annually from 2007-2012, and 0.9% annually from 2012-2017. Growth was impacted by the Great Recession which lasted from December 2007 through of June 2009, slow economic recovery, annual toll rate increases, and the closure of the DRB in 2017.

Table 2-3 shows commercial-vehicle transaction trends on the Ticket System. Commercial vehicle transactions averaged annual growth of 0.2% from 2007-2012, and 2.6% growth from 2012-2017. Total-vehicle transaction trends are shown in Table 2-4. Because passenger cars make up about 86% of total Ticket System toll transactions, the trends and growth rates for total vehicles closely mirror those for passenger cars. Total transactions averaged growth of 0.2% from 2007-2012, and 1.0% growth from 2012-2017.

Table 2-2
Passenger Cars - Average Daily Transactions on the Turnpike Ticket System At Exiting Toll Plazas
Includes Revenue and Non-Revenue Vehicles, and Gateway Barrier Plaza

Interchange	Calendar Year															Average Annual Percent Change		
(Milepost)	2003	2004(1)	2005	2006	2007	2008	2009(1)	2010(1)	2011(1)	2012(1)	2013(1)	2014(1)	2015(1)	2016(1)	2017(1)	2007-12	2012-17	2003-17
2 (2)	13,828	16,379	15,873	8,194	8,183	8,096	8,441	8,716	8,743	8,820	8,967	8,942	9,209	9,469	9,494	0.8	1.5	(2.6)
30	7,374	11,585	11,269	11,419	11,940	12,056	12,232	12,118	12,023	11,939	12,413	12,339	12,542	12,704	12,844	(0.0)	1.5	4.0
39	5,448	5,417	5,154	5,181	5,613	5,627	5,495	5,527	5,333	5,416	5,832	5,855	5,540	5,821	5,699	(0.4)	1.0	0.3
48	9,505	9,377	9,101	9,129	9,406	9,226	9,087	8,879	8,576	8,734	9,171	9,147	8,882	9,101	8,889	(0.7)	0.4	(0.5)
57	18,770	18,598	18,087	18,290	18,198	18,305	18,083	17,452	17,172	17,130	17,399	17,336	17,792	17,660	17,576	(0.6)	0.5	(0.5)
67	10,303	10,054	9,437	9,582	9,614	9,068	8,674	8,776	8,718	8,955	8,870	8,783	9,037	8,807	8,675	(0.7)	(0.6)	(1.2)
75	9,394	9,191	8,880	8,779	8,806	8,522	8,433	8,550	8,246	8,539	8,556	8,701	8,861	8,545	8,405	(0.3)	(0.3)	(0.8)
91	2,253	2,239	2,257	2,237	2,478	2,395	2,351	2,371	2,279	2,352	2,393	2,344	2,403	2,385	2,447	(0.5)	0.8	0.6
110	2,061	1,948	1,892	1,927	2,067	2,119	2,104	2,136	2,159	2,156	2,048	2,027	2,101	2,048	2,065	0.4	(0.9)	0.0
146	3,290	3,370	3,163	3,037	3,059	2,994	2,972	2,945	2,848	2,779	2,715	2,773	2,803	2,746	2,707	(1.0)	(0.5)	(1.4)
161	6,820	6,713	6,517	6,356	6,216	6,005	6,356	6,262	6,064	6,023	6,057	6,000	6,087	5,916	5,777	(0.3)	(0.8)	(1.2)
180	715	761	691	676	711	675	655	658	645	610	593	586	608	608	627	(1.5)	0.5	(0.9)
189	488	483	448	443	440	426	409	418	409	391	378	385	406	421	442	(1.2)	2.5	(0.7)
201	670	679	649	658	662	614	603	642	634	628	625	594	605	650	669	(0.5)	1.3	(0.0)
226	5,365	5,262	4,939	4,959	4,973	4,736	4,628	4,899	4,705	4,541	4,637	4,667	4,813	4,541	4,642	(0.9)	0.4	(1.0)
236	4,804	4,796	4,567	4,562	4,661	4,507	4,470	5,074	4,883	4,689	4,762	4,846	5,181	5,128	5,207	0.1	2.1	0.6
242	5,781	5,734	5,352	5,196	5,265	6,068	5,894	5,476	5,371	5,159	5,295	5,530	5,823	5,615	5,656	(0.2)	1.9	(0.2)
247	10,217	10,256	9,917	9,553	9,902	10,073	9,952	10,478	10,155	9,948	10,074	10,175	10,598	10,521	10,535	0.0	1.2	0.2
266	3,663	3,695	3,643	3,602	3,740	3,577	3,484	3,571	3,442	3,519	3,621	3,640	3,815	3,940	4,066	(0.6)	2.9	0.7
286	6,954	7,207	6,969	7,185	7,397	7,060	6,910	6,937	6,766	6,736	6,886	7,026	7,393	7,545	7,713	(0.9)	2.7	0.7
298	7,201	7,359	7,335	7,457	7,446	7,448	7,176	7,018	6,789	6,588	6,737	7,022	7,383	7,501	7,564	(1.2)	2.8	0.4
312	10,421	10,455	10,291	10,558	11,011	10,635	10,234	10,353	10,315	10,347	10,444	10,692	10,522	10,186	9,963	(0.6)	(0.8)	(0.3)
320 (3)										113	3,539	4,667	5,223	5,292	5,453	-	117.1	-
326	26,928	28,231	28,201	28,173	27,069	26,975	27,783	29,284	28,965	28,780	28,066	28,423	29,777	30,197	30,737	0.6	1.3	0.9
333	12,297	12,586	11,861	11,455	11,312	11,848	11,904	12,166	12,093	11,860	11,811	11,598	11,235	11,319	11,313	0.5	(0.9)	(0.6)
20	34,130	35,753	35,452	36,060	36,659	35,518	34,961	35,236	35,478	36,231	36,441	36,305	37,726	38,010	37,978	(0.1)	0.9	0.8
339	22,140	22,015	21,709	21,561	21,203	20,312	20,989	22,973	23,265	23,582	23,852	23,849	24,711	24,709	24,910	1.1	1.1	0.8
340 (4)	1,318	1,541	1,570	1,581	1,537	1,521	1,370	1,422	1,447	1,409	1,484	1,627	1,721	1,842	1,913	(0.9)	6.3	2.7
343	24,850	25,716	25,152	24,609	26,054	25,277	25,165	26,569	26,178	25,858	25,323	24,896	25,105	25,628	25,447	(0.1)	(0.3)	0.2
351	29,503	30,084	29,563	29,433	29,917	29,315	29,196	29,690	28,170	27,512	27,316	26,689	27,226	27,475	27,137	(0.8)	(0.3)	(0.6)
352 (5)								158	1,805	2,146	2,384	2,676	2,949	3,111	3,826	-	12.3	-
353														19,957	18,783	-	-	-
358 (6)	5,755	6,011	5,856	5,854	5,917	5,964	5,767	5,716	5,538	5,386	5,090	4,950	4,951			-	-	-
359 (7)	17,532	18,086	17,844	17,635	17,727	17,274	16,943	17,255	16,846	16,164	16,333	16,608	17,943			-	-	-
31	12,939	13,166	12,941	13,034	13,304	13,389	13,431	13,432	12,950	12,742	12,669	12,472	12,853	13,033	13,741	(0.4)	1.5	-
44	7,378	7,926	7,950	8,149	8,235	8,313	8,399	8,478	8,157	8,040	8,021	7,953	8,091	8,248	8,090	(0.2)	0.1	-
56	14,528	15,392	15,064	15,318	15,581	14,950	15,339	16,008	15,365	15,028	15,012	14,785	15,013	15,093	15,218	(0.4)	0.3	-
74	4,442	4,691	4,562	4,657	4,796	4,811	4,723	4,722	4,580	4,490	4,459	4,385	4,354	4,179	4,256	(0.7)	(1.1)	-
87 (8)													708	1,564	1,779	-	-	-
95	4,599	5,020	4,722	4,750	4,761	4,709	5,021	5,200	4,859	4,640	4,639	4,633	4,693	4,511	4,432	(0.3)	(0.9)	-
105	2,946	3,243	3,033	3,060	3,188	3,062	3,232	3,337	3,234	3,152	3,099	3,102	3,248	3,195	3,291	(0.1)	0.9	-
115	4,013	4,256	4,051	4,047	4,043	4,128	4,289	4,067	3,948	3,856	3,890	3,861	4,036	3,904	3,992	(0.5)	0.7	-
Total	370,623	385,275	375,967	368,356	373,089	367,599	367,153	374,969	369,153	366,989	371,905	372,889	383,965	383,123	383,961	0.3	0.9	0.3
Percent Change Over Prior Year		4.0	(2.4)	(2.0)	1.3	(1.5)	(0.1)	2.1	(1.6)	(0.6)	1.3	0.3	3.0	(0.2)	0.2			

(1) A toll increase occurred on or close to January 1. Refer to table 2-1 for the rate change.
(2) On 6/1/2003 Gateway was a barrier toll plaza with two-way toll collection. On 1/2/2006, toll collection changed from two-way to eastbound toll collection. This reduced the number of toll transactions.
(3) Interchange 320 (Route 29) Opened in December 2012 as an E-ZPass only interchange.
(4) Interchange 340 (Virginia Drive) opened in December 2000 as an E-ZPass only interchange.
(5) Interchange 352 (Street Road) opened in November 2010 as an eastbound only ,E-ZPass only interchange.
(6) Neshaminy Falls opened as the new eastern terminus of the East-West Mainline Ticket System in January 2016.
(7) The Delaware River Bridge mainline toll plaza became part of the Barrier System in January 2016. Toll collection changed from bi-directional to westbound only.
(8) Interchange 87 (Route 903) opened June 2015 as an E-ZPass only interchange.

Table 2-3
Commercial Vehicles - Average Daily Transactions on the Turnpike Ticket System At Exiting Toll Plazas
Includes Revenue and Non-Revenue Vehicles, and Gateway Barrier Plaza

Interchange	Calendar Year															Average Annual Percent Change		
(Milepost)	2003	2004(1)	2005	2006	2007	2008	2009(1)	2010(1)	2011(1)	2012(1)	2013(1)	2014(1)	2015(1)	2016(1)	2017(1)	2007-12	2012-17	2003-17
2 (2)	4,259	5,447	5,760	2,644	2,702	2,621	2,259	2,432	2,515	2,457	2,539	2,650	2,731	2,720	2,779	(0.9)	2.5	(3.0)
30	1,865	3,196	3,340	3,371	3,505	3,412	2,994	3,060	3,116	3,192	3,276	3,428	3,582	3,666	3,805	(0.9)	3.6	5.2
39	513	536	552	527	575	571	544	565	552	560	596	579	586	606	609	(0.3)	1.7	1.2
48	1,048	1,075	1,072	1,081	1,177	1,185	1,104	1,153	1,058	1,073	1,092	1,132	1,223	1,237	1,229	(0.9)	2.8	1.1
57	1,591	1,653	1,680	1,706	1,735	1,636	1,498	1,590	1,606	1,623	1,652	1,694	1,730	1,805	1,838	(0.7)	2.5	1.0
67	837	849	857	853	894	895	869	847	816	857	866	883	912	931	926	(0.4)	1.5	0.7
75	4,255	4,345	4,348	4,389	4,478	4,389	3,902	3,854	3,828	3,830	3,857	3,977	4,123	4,096	4,189	(1.6)	1.8	(0.1)
91	267	318	262	286	306	287	314	334	323	313	311	326	324	317	339	0.2	1.6	1.7
110	729	729	710	715	743	738	652	669	690	690	701	723	728	695	719	(0.7)	0.8	(0.1)
146	1,375	1,454	1,350	1,332	1,327	1,151	1,009	1,077	1,056	1,035	1,024	1,030	1,087	1,105	1,135	(2.4)	1.9	(1.4)
161	2,840	2,888	2,902	2,835	2,910	2,616	2,261	2,440	2,431	2,381	2,338	2,361	2,378	2,416	2,417	(2.0)	0.3	(1.1)
180	173	198	205	218	230	203	169	207	215	210	216	225	239	243	275	(0.9)	5.6	3.4
189	108	106	106	107	108	96	85	100	101	109	105	103	106	116	131	0.1	3.8	1.4
201	161	186	215	214	229	219	193	212	265	291	286	251	258	295	350	2.4	3.7	5.7
226	3,359	3,471	3,430	3,483	3,548	3,350	2,893	2,886	2,889	2,826	2,871	2,990	3,135	3,130	3,200	(2.2)	2.5	(0.3)
236	619	632	668	723	774	690	646	751	774	756	792	811	877	925	974	(0.2)	5.2	3.3
242	995	1,070	1,119	1,154	1,194	1,243	1,146	1,105	1,100	1,003	1,114	1,170	1,237	1,303	1,338	(1.7)	5.9	2.1
247	1,718	1,812	1,895	1,854	1,863	1,817	1,653	1,749	1,743	1,706	1,792	1,885	2,018	2,140	2,178	(0.9)	5.0	1.7
266	499	501	518	538	549	523	469	486	482	481	494	534	537	581	598	(1.3)	4.5	1.3
286	1,437	1,492	1,461	1,507	1,572	1,491	1,325	1,354	1,364	1,350	1,415	1,496	1,593	1,696	1,697	(1.5)	4.7	1.2
298	1,146	1,194	1,160	1,187	1,188	1,084	936	963	995	1,005	1,023	1,137	1,253	1,330	1,336	(1.7)	5.9	1.1
312	935	971	967	996	1,058	908	806	904	929	948	990	1,068	1,119	1,171	1,141	(1.1)	3.8	1.4
320 (3)										6	286	334	356	446	495	-	141.7	-
326	3,137	3,360	3,408	3,486	3,446	3,190	2,902	3,118	3,105	2,993	2,984	3,069	3,249	3,443	3,467	(1.4)	3.0	0.7
333	598	618	626	611	636	663	597	644	629	630	633	660	645	687	678	(0.1)	1.5	0.9
20	3,839	4,124	4,187	4,320	4,433	4,114	3,751	3,883	3,961	4,037	4,150	4,309	4,554	4,798	4,765	(0.9)	3.4	1.6
339	1,373	1,408	1,453	1,424	1,403	1,343	1,260	1,329	1,417	1,437	1,518	1,564	1,678	1,802	1,746	0.2	4.0	1.7
340 (4)	11	13	16	19	20	19	18	20	24	24	30	48	61	63	61	1.6	20.2	12.9
343	1,877	2,040	2,102	2,119	2,210	2,109	1,999	2,109	2,116	2,102	2,130	2,205	2,255	2,396	2,330	(0.5)	2.1	1.6
351	3,204	3,268	3,338	3,374	3,397	3,384	3,111	3,178	3,151	3,105	3,146	3,174	3,323	3,457	3,601	(0.9)	3.0	0.8
352 (5)								4	54	68	84	117	130	143	174	-	20.7	-
353														3,743	3,489			
358 (6)	1,624	1,737	1,807	1,810	1,812	1,529	1,410	1,654	1,571	1,442	1,458	1,514	1,553	0	0	-	-	-
359 (7)	3,296	3,613	3,754	3,790	3,949	4,137	3,768	3,474	3,389	3,231	3,330	3,491	3,740	0	0	-	-	-
31	1,319	1,387	1,409	1,429	1,505	1,495	1,453	1,498	1,450	1,431	1,436	1,562	1,672	1,742	1,660	(0.5)	3.0	-
44	842	869	897	951	990	958	929	965	943	958	998	1,048	1,094	1,120	1,129	(0.3)	3.3	-
56	2,592	2,833	2,909	3,051	3,139	3,118	3,039	3,147	3,114	3,136	3,211	3,309	3,496	3,647	3,644	(0.0)	3.1	-
74	465	496	526	546	596	484	480	527	536	523	530	547	551	582	559	(1.3)	1.3	-
87 (8)													50	133	155	-	-	-
95	1,169	1,235	1,227	1,292	1,336	1,264	1,226	1,337	1,329	1,336	1,385	1,424	1,497	1,547	1,485	(0.0)	2.1	-
105	176	205	209	210	218	400	396	200	209	205	207	209	238	244	235	(0.6)	2.8	-
115	1,250	1,336	1,340	1,329	1,358	1,204	1,167	1,268	1,266	1,258	1,287	1,300	1,420	1,391	1,412	(0.8)	2.3	-
Total	57,500	62,662	63,786	61,480	63,114	60,535	55,230	57,093	57,112	56,614	58,154	60,336	63,340	63,909	64,287	0.2	2.6	0.8
Percent Change Over Prior Year		9.0	1.8	(3.6)	2.7	(4.1)	(8.8)	3.4	0.0	(0.9)	2.7	3.8	5.0	0.9	0.6			

(1) A toll increase occurred on or close to January 1. Refer to table 2-1 for the rate change.
(2) On 6/1/2003 Gateway was a barrier toll plaza with two-way toll collection. On 1/2/2006, toll collection changed from two-way to eastbound toll collection. This reduced the number of toll transactions.
(3) Interchange 320 (Route 29) Opened in December 2012 as an E-ZPass only interchange.
(4) Interchange 340 (Virginia Drive) opened in December 2000 as an E-ZPass only interchange.
(5) Interchange 352 (Street Road) opened in November 2010 as an eastbound only ,E-ZPass only interchange.
(6) Neshaminy Falls opened as the new eastern terminus of the East-West Mainline Ticket System in January 2016.
(7) The Delaware River Bridge mainline toll plaza became part of the Barrier System in January 2016. Toll collection changed from bi-directional to westbound only.
(8) Interchange 87 (Route 903) opened June 2015 as an E-ZPass only interchange.

Table 2-4
Total Vehicles - Average Daily Transactions on the Turnpike Ticket System At Exiting Toll Plazas
Includes Revenue and Non-Revenue Vehicles, and Gateway Barrier Plaza

Interchange	Calendar Year															Average Annual Percent Change		
(Milepost)	2003	2004(1)	2005	2006	2007	2008	2009(1)	2010(1)	2011(1)	2012(1)	2013(1)	2014(1)	2015(1)	2016(1)	2017(1)	2007-12	2012-17	2003-17
2 (2)	18,087	21,826	21,633	10,838	10,884	10,717	10,700	11,148	11,258	11,276	11,506	11,592	11,939	12,189	12,273	0.4	1.7	(2.7)
30	9,239	14,781	14,609	14,791	15,445	15,468	15,226	15,178	15,140	15,131	15,689	15,767	16,124	16,370	16,649	(0.2)	1.9	4.3
39	5,961	5,953	5,706	5,709	6,188	6,198	6,039	6,092	5,885	5,976	6,428	6,434	6,126	6,426	6,309	(0.3)	1.1	0.4
48	10,553	10,452	10,173	10,210	10,583	10,411	10,191	10,032	9,634	9,806	10,263	10,278	10,106	10,338	10,119	(0.8)	0.6	(0.3)
57	20,361	20,251	19,767	19,996	19,933	19,941	19,581	19,042	18,778	18,753	19,051	19,030	19,522	19,465	19,415	(0.6)	0.7	(0.3)
67	11,140	10,902	10,294	10,435	10,507	9,963	9,543	9,623	9,534	9,813	9,737	9,667	9,949	9,738	9,601	(0.7)	(0.4)	(1.1)
75	13,650	13,537	13,228	13,168	13,284	12,912	12,334	12,404	12,074	12,369	12,413	12,678	12,984	12,641	12,594	(0.7)	0.4	(0.6)
91	2,520	2,556	2,520	2,523	2,784	2,681	2,665	2,705	2,602	2,665	2,705	2,670	2,726	2,702	2,786	(0.4)	0.9	0.7
110	2,789	2,676	2,602	2,642	2,810	2,857	2,755	2,805	2,849	2,847	2,750	2,750	2,829	2,743	2,784	0.1	(0.4)	(0.0)
146	4,665	4,824	4,514	4,369	4,386	4,146	3,981	4,022	3,904	3,814	3,739	3,802	3,890	3,851	3,842	(1.4)	0.1	(1.4)
161	9,661	9,601	9,419	9,191	9,126	8,621	8,617	8,702	8,495	8,404	8,396	8,361	8,465	8,333	8,194	(0.8)	(0.5)	(1.2)
180	888	959	896	894	941	878	824	865	860	820	809	811	847	851	902	(1.4)	1.9	0.1
189	596	589	555	550	548	522	494	518	510	500	484	488	512	537	573	(0.9)	2.8	(0.3)
201	831	865	863	872	891	832	796	854	899	919	911	844	863	945	1,019	0.3	2.1	1.5
226	8,724	8,733	8,369	8,442	8,521	8,085	7,521	7,785	7,594	7,367	7,508	7,656	7,948	7,671	7,842	(1.4)	1.3	(0.8)
236	5,422	5,428	5,235	5,285	5,435	5,197	5,116	5,825	5,657	5,445	5,554	5,657	6,057	6,054	6,181	0.0	2.6	0.9
242	6,777	6,803	6,471	6,350	6,459	7,311	7,040	6,581	6,471	6,162	6,409	6,700	7,060	6,918	6,994	(0.5)	2.6	0.2
247	11,936	12,068	11,812	11,407	11,765	11,890	11,604	12,227	11,898	11,654	11,866	12,060	12,616	12,661	12,713	(0.1)	1.8	0.5
266	4,163	4,196	4,161	4,140	4,289	4,100	3,954	4,057	3,924	4,000	4,116	4,173	4,352	4,521	4,664	(0.7)	3.1	0.8
286	8,391	8,699	8,430	8,691	8,969	8,551	8,235	8,291	8,130	8,086	8,301	8,522	8,986	9,241	9,409	(1.0)	3.1	0.8
298	8,347	8,552	8,495	8,644	8,634	8,532	8,112	7,981	7,784	7,593	7,760	8,159	8,636	8,830	8,901	(1.3)	3.2	0.5
312	11,355	11,426	11,259	11,554	12,069	11,543	11,039	11,257	11,244	11,295	11,434	11,760	11,641	11,357	11,103	(0.7)	(0.3)	(0.2)
320 (3)										120	3,826	5,001	5,001	5,001	5,001	-	110.9	-
326	30,064	31,591	31,609	31,659	30,515	30,165	30,685	32,402	32,070	31,773	31,050	31,492	33,026	33,640	34,203	0.4	1.5	0.9
333	12,895	13,204	12,487	12,066	11,948	12,511	12,501	12,810	12,722	12,490	12,445	12,258	11,881	12,006	11,991	0.4	(0.8)	(0.5)
20	37,969	39,877	39,640	40,381	41,091	39,631	38,712	39,119	39,439	40,268	40,590	40,614	42,280	42,808	42,743	(0.2)	1.2	0.8
339	23,513	23,422	23,162	22,984	22,606	21,655	22,249	24,302	24,683	25,019	25,371	25,413	26,389	26,511	26,657	1.0	1.3	0.9
340 (4)	1,329	1,554	1,587	1,599	1,558	1,540	1,388	1,442	1,471	1,433	1,513	1,676	1,782	1,905	1,974	(0.8)	6.6	2.9
343	26,727	27,756	27,254	26,728	28,264	27,385	27,163	28,678	28,294	27,960	27,453	27,102	27,360	28,024	27,777	(0.1)	(0.1)	0.3
351	32,707	33,352	32,900	32,807	33,315	32,700	32,307	32,868	31,321	30,616	30,462	29,863	30,549	30,932	30,738	(0.8)	0.1	(0.4)
352 (5)								162	1,859	2,214	2,467	2,792	3,079	3,254	4,000	-	12.6	-
353														23,700	22,272	-	-	-
358 (6)	7,380	7,748	7,663	7,664	7,728	7,494	7,177	7,370	7,109	6,828	6,548	6,464	6,504	0	0	-	-	-
359 (7)	20,828	21,699	21,598	21,425	21,676	21,411	20,712	20,729	20,235	19,395	19,662	20,100	21,683	0	0	-	-	-
31	14,258	14,553	14,350	14,463	14,809	14,885	14,884	14,930	14,400	14,172	14,105	14,034	14,525	14,776	14,816	(0.4)	0.9	-
44	8,220	8,796	8,848	9,099	9,225	9,271	9,328	9,443	9,100	8,998	9,019	9,001	9,185	9,368	9,219	(0.2)	0.5	-
56	17,120	18,225	17,973	18,369	18,720	18,068	18,378	19,155	18,480	18,164	18,224	18,094	18,508	18,740	18,862	(0.3)	0.8	-
74	4,907	5,188	5,088	5,204	5,393	5,295	5,204	5,249	5,116	5,014	4,989	4,932	4,905	4,761	4,815	(0.7)	(0.8)	-
87 (8)																-	-	-
95	5,768	6,255	5,949	6,042	6,097	5,973	6,247	6,537	6,188	5,976	6,025	6,057	6,190	6,057	5,918	(0.2)	(0.2)	-
105	3,122	3,448	3,242	3,269	3,406	3,463	3,627	3,537	3,443	3,357	3,306	3,311	3,486	3,440	3,526	(0.1)	1.0	-
115	5,263	5,592	5,391	5,377	5,401	5,332	5,456	5,335	5,214	5,114	5,178	5,161	5,456	5,296	5,405	(0.5)	1.1	-
Total	428,123	447,937	439,753	429,836	436,203	428,134	422,383	432,062	426,266	423,604	430,060	433,225	445,969	444,598	444,782	0.2	1.0	0.3
Percent Change Over Prior Year		4.6	(1.8)	(2.3)	1.5	(1.8)	(1.3)	2.3	(1.3)	(0.6)	1.5	0.7	2.9	(0.3)	0.0			

(1) A toll increase occurred on or close to January 1. Refer to table 2-1 for the rate change.
(2) On 6/1/2003 Gateway was a barrier toll plaza with two-way toll collection. On 1/2/2006, toll collection changed from two-way to eastbound toll collection. This reduced the number of toll transactions.
(3) Interchange 320 (Route 29) Opened in December 2012 as an E-ZPass only interchange.
(4) Interchange 340 (Virginia Drive) opened in December 2000 as an E-ZPass only interchange.
(5) Interchange 352 (Street Road) opened in November 2010 as an eastbound only ,E-ZPass only interchange.
(6) Neshaminy Falls opened as the new eastern terminus of the East-West Mainline Ticket System in January 2016.
(7) The Delaware River Bridge mainline toll plaza became part of the Barrier System in January 2016. Toll collection changed from bi-directional to westbound only.
(8) Interchange 87 (Route 903) opened June 2015 as an E-ZPass only interchange.

2.3.2 Barrier System Transaction Trends

Average annual daily traffic trends at the Barrier System's toll plazas are shown in Tables 2-5 through 2-7 for passenger cars, commercial vehicles and total vehicles, respectively. Note that the Delaware River Bridge (Plaza 359) transactions are counted as part of the Barrier System beginning in 2016.

Total Barrier System transactions have been increasing at a faster rate than the Ticket System's. Passenger-car transactions averaged annual growth of 2.8% from 2007-2012, and 3.2% growth from 2012-2017. Higher Barrier System growth rates occur because of the following reasons: 1) these tend to be younger facilities that have historically been adding additional lane miles and sometimes additional interchanges and toll plazas. These facilities also tend to be on the fringe of urban areas and are benefiting from increasing development in their corridors. Lastly, Turnpike I-576 was exempt from scheduled toll increases in 2009 through 2012, and 2014 through 2018. The DRB was exempt from scheduled toll increases in 2017 and 2018. Overall, growth on the Barrier System was also impacted by the Great Recession, slow economic recovery, annual toll rate increases, and the temporary closure of the DRB in 2017.

Commercial-vehicle average daily transaction trends are shown in Table 2-6. They also show stronger annual growth compared to the Ticket System. Commercial-vehicle transactions averaged annual growth of 4.6% from 2007-2012, and 3.3% growth from 2012-2017.

Total Barrier System transactions increased annually by 3.0% from 2007-2012, and 3.2% from 2012-2017, as shown in Table 2-7. Growth would have been higher in 2017 if the Delaware River Bridge (plaza 359) had not been closed from January 20 through March 9, 2017.

2.4 Monthly Transactions and Gross Toll Revenue Trends

This section discusses monthly transactions and toll revenue trends by fiscal year (FY) from FY 2013-14 through FY 2017-18 for the Ticket System, Barrier System, and the total Turnpike System. The last actual data point is February 2018. Trend data is provided separately for passenger cars and commercial vehicles. The transaction data includes only toll transactions at exiting toll plazas; non-revenue transactions are not included. These tables present the relationship between the transactions and toll revenue, highlight differenced in seasonal variation. And isolate shorter-term impacts that may not be apparent in annual trends.

2.4.1 Ticket System Monthly Trends

Monthly transaction and toll revenue trends for the Ticket System are presented in Table 2-8 from FY 2014-15 through February of FY 2017-18. Passenger-car transactions increased by 2.1% in FY 2014-15 and decreased by 0.9% in FY 2016-17 compared to the previous year. The decline can be partially attributed to the leap year in 2016, resulting in one less day of transactions in February 2017 compared to 2016. Also, as previously mentioned, the DRB was closed on January 20, 2017 through March 9, 2017 due to a fracture in one of the structural support beams. Although the DRB transactions are not included in the Ticket System, negative traffic impacts were still felt on parts of the Ticket System. Prior to January 2016, the DRB transactions were reported on the Ticket System.

Table 2-5
Passenger Cars - Average Daily Transactions on the Turnpike Barrier System
Includes Revenue and Non-Revenue Vehicles

	Calendar Year (1)															Average Annual Percent Change		
Toll Location	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2007-12	2012-17	2007-17
Northeast Extension Barrier Plazas																		
Keyser Ave.	6,274	6,719	6,489	6,573	6,736	6,782	7,012	6,935	6,970	6,960	7,156	7,017	7,037	6,653	6,575	0.7	(1.1)	(0.2)
Clarks Summit	6,492	6,747	6,519	6,545	6,740	6,790	6,850	6,670	6,673	6,702	7,270	7,135	6,842	6,337	6,104	(0.1)	(1.9)	(1.0)
Subtotal	12,766	13,466	13,008	13,117	13,476	13,572	13,862	13,605	13,643	13,662	14,426	14,152	13,879	12,990	12,679	0.3	(1.5)	(0.6)
Turnpike I-376 - Beaver Valley Expressway (1)																		
East Toll 376	9,782	9,821	9,896	9,854	10,334	10,288	9,897	9,884	9,940	9,685	9,235	8,971	8,918	8,477	8,386	(1.3)	(2.8)	(2.1)
Beaver Falls Rte. 551					434	458	430	455	430	437	425	387	410	391	414	0.1	(1.1)	(0.5)
Moravia Rte. 168					756	808	706	674	778	775	728	712	700	667	656	0.5	(3.3)	(1.4)
West Toll 376	6,176	6,385	6,812	7,047	7,524	7,633	7,617	7,738	7,632	7,430	7,178	7,292	7,333	7,239	7,434	(0.3)	0.0	(0.1)
Mt. Jackson Rte. 108					1,277	1,557	1,390	1,236	1,173	1,094	1,019	953	981	982	1,021	(3.1)	(1.4)	(2.2)
Subtotal	15,958	16,206	16,708	16,901	20,326	20,744	20,040	19,987	19,953	19,419	18,587	18,315	18,342	17,756	17,912	(0.9)	(1.6)	(1.3)
Turnpike 66 - Amos K. Hutchinson Bypass (2)																		
Rte. 136				217	597	806	727	742	731	738	708	749	786	754	755	4.3	0.5	2.4
AKH Mainline	10,476	10,858	11,123	12,053	12,308	12,327	12,114	12,276	11,947	11,843	11,721	11,728	11,623	11,102	11,203	(0.8)	(1.1)	(0.9)
Route 30				861	2,889	4,617	4,645	4,921	4,809	4,686	4,625	4,625	4,599	4,544	4,496	10.2	(0.8)	4.5
Route 130				226	1,260	1,370	1,370	1,397	1,459	1,336	1,326	1,377	1,335	1,325	1,323	1.2	(0.2)	0.5
Route 66				117	580	762	738	752	774	754	753	834	815	850	827	5.4	1.9	3.6
Subtotal	10,476	10,858	11,123	13,473	17,633	19,883	19,594	20,088	19,719	19,356	19,133	19,313	19,158	18,576	18,605	1.9	(0.8)	0.5
Turnpike 43 - Mon/Fayette Expressway (3)																		
Ramp M4	30	29	26	32	39	32	22	22	147	299	315	308	313	295	292	50.7	(0.5)	22.5
M5	1,794	1,884	1,973	2,060	2,151	2,257	2,301	2,477	3,467	4,933	5,224	5,663	6,042	6,055	6,073	18.1	4.2	10.9
Ramp M15								13	109	86	81	77	88	81	82	-	(0.8)	-
Ramp M18								114	228	281	290	284	327	317	296	-	1.0	-
M19								275	3,543	4,537	4,896	5,079	5,587	5,744	5,564	-	4.2	-
Ramp M22											186	160	170	151	149	-	-	-
Ramp M26											740	769	842	796	836	-	-	-
M35 California	2,728	9,365	9,366	9,754	10,224	10,530	10,318	10,515	10,407	10,605	10,587	10,649	11,074	10,635	10,265	0.7	(0.6)	0.0
Ramp M39	1,766	906	868	963	1,030	1,052	1,050	1,067	1,073	1,056	1,046	1,006	1,015	1,026	988	0.5	(1.3)	(0.4)
Ramp M44		736	720	758	745	749	703	692	665	651	641	647	685	670	704	(2.7)	1.6	(0.6)
Ramp M48		2,543	2,790	2,936	3,213	3,301	3,356	3,471	3,478	3,537	3,511	3,579	4,054	3,812	3,830	1.9	1.6	1.8
M52	5,689	6,326	6,746	7,099	7,179	7,351	7,181	7,161	7,149	7,464	7,233	7,033	6,906	6,740	6,802	0.8	(1.8)	(0.5)
Subtotal	12,006	21,789	22,489	23,602	24,581	25,273	24,931	25,807	30,266	33,450	34,751	35,255	37,104	36,325	35,881	6.4	1.4	3.9
I-576 - Southern Beltway																		
SB Rte. 30				80	166	223	262	298	364	555	303	311	305	278	390	27.3	(6.8)	8.9
SB Westport Rd.				59	125	130	153	160	163	190	191	249	348	340	339	8.8	12.3	10.5
Rte. 22				533	2,914	3,320	3,727	3,897	4,135	4,209	4,005	4,154	4,232	4,290	4,363	7.6	0.7	4.1
Subtotal				671	3,204	3,673	4,142	4,355	4,662	4,954	4,498	4,714	4,885	4,909	5,093	9.1	0.6	4.7
Delaware River Bridge (4, 5)																		
DRB														18,450	16,234	-	-	-
All Barrier Facilities																		
Total	51,205	62,320	63,328	67,765	79,221	83,146	82,569	83,842	88,244	90,841	91,394	91,749	93,368	109,004	106,404	2.8	3.2	3.0
Percent Change Over Prior Year	10.2	21.7	1.6	7.0	16.9	5.0	(0.7)	1.5	5.2	2.9	0.6	0.4	1.8	16.7	(2.4)			

(1) Toll rate increases were generally implemented annually from 2009 through 2017. Oftentimes, I-576 was exempted from the programed toll increases. Refer to Table 2-1 for details.
(1) Toll 60 (Turnpike 376) ramp counts were not available from 2002 to 2006.
(2) Toll 66 ramp counts were not available from 2002 to 2005.
(3) On July 11, 2011, the West Virginia section of Turnpike 43 was opened.
(4) In January of 2016, toll collection on the Delaware River Bridge was converted from bidirectional to westbound only, and became a barrier plaza instead of the eastern terminus of the Ticket System.
(5) Transactions were negatively impacted from 1/1/2017 through 3/9/2017 due to the closure of the bridge because of a fracture in a structural support beam.

Table 2-6
Commercial Vehicles - Average Daily Transactions on the Turnpike Barrier System
Includes Revenue and Non-Revenue Vehicles

	Calendar Year (1)															Average Annual Percent Change		
Toll Location	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2007-12	2012-17	2007-17
Northeast Extension Barrier Plazas																		
Keyser Ave.	918	938	1,092	1,227	1,408	1,363	1,306	1,365	1,492	1,532	1,606	1,643	1,687	1,690	1,751	1.7	2.7	2.2
Clarks Summit	957	931	1,038	1,112	1,162	1,096	1,047	1,082	1,149	1,228	1,369	1,436	1,404	1,391	1,429	1.1	3.1	2.1
Subtotal	1,875	1,869	2,130	2,339	2,570	2,459	2,353	2,447	2,641	2,759	2,975	3,079	3,091	3,081	3,180	1.4	2.9	2.2
Turnpike I-376 - Beaver Valley Expressway (1)																		
East Toll 376	1,304	1,328	1,353	1,311	1,490	1,548	1,342	1,506	1,621	1,693	1,729	1,830	1,859	1,826	1,871	2.6	2.0	2.3
Beaver Falls Rte. 551					36	39	31	48	59	59	50	48	51	43	54	10.2	(1.7)	4.1
Moravia Rte. 168					96	145	60	73	92	86	73	97	82	61	76	(2.2)	(2.6)	(2.4)
West Toll 376	870	911	915	998	1,133	1,170	1,034	1,196	1,211	1,226	1,202	1,279	1,272	1,244	1,299	1.6	1.2	1.4
Mt. Jackson Rte. 108					98	108	113	98	133	164	135	148	154	152	163	11.0	(0.1)	5.3
Subtotal	2,174	2,239	2,268	2,309	2,854	3,010	2,580	2,921	3,116	3,228	3,190	3,402	3,418	3,326	3,463	2.5	1.4	2.0
Turnpike 66 - Amos K. Hutchinson Bypass (2)																		
Rte. 136				126	211	183	146	165	183	178	177	749	197	171	168	(3.3)	(1.2)	(2.3)
AKH Mainline	1,813	1,818	1,872	1,935	2,070	2,146	2,010	2,261	2,333	2,348	2,372	2,603	2,514	2,397	2,495	2.6	1.2	1.9
Route 30				142	290	282	265	300	292	315	313	306	283	279	298	1.7	(1.1)	0.3
Route 130				17	38	29	30	26	26	26	28	32	27	29	30	(7.1)	2.8	(2.3)
Route 66				5	15	16	17	18	19	22	19	21	18	18	19	7.2	(3.1)	1.9
Subtotal	1,813	1,818	1,872	2,226	2,623	2,656	2,468	2,770	2,853	2,890	2,908	3,710	3,040	2,893	3,009	2.0	0.8	1.4
Turnpike 43 - Mon/Fayette Expressway (3)																		
Ramp M4	1	1	1	1	1	2	1	1	4	7	8	8	8	7	8	40.1	2.8	20.0
M5	151	135	136	150	140	196	240	275	366	529	665	819	838	742	777	30.4	8.0	18.7
Ramp M15								0	6	7	9	13	14	8	9	-	3.4	-
Ramp M18								6	16	19	20	17	36	16	15	-	(4.4)	-
M19								182	302	437	605	679	751	661	705	-	10.1	-
Ramp M22											29	24	40	15	14	-	-	-
Ramp M26											18	22	27	21	23	-	-	-
M35 California	84	314	303	321	384	478	532	573	574	694	827	1,002	974	871	934	12.6	6.1	9.3
Ramp M39	52	23	23	26	32	34	35	40	45	44	55	61	74	64	85	6.6	14.0	10.3
Ramp M44		37	34	42	46	68	33	29	53	47	53	56	107	100	96	0.0	15.5	7.5
Ramp M48		107	82	59	65	66	60	73	85	97	102	128	165	125	132	8.4	6.4	7.4
M52	92	107	118	108	111	127	125	143	156	173	183	197	210	212	224	9.4	5.3	7.3
Subtotal	382	724	697	707	779	971	1,025	1,322	1,607	2,053	2,573	3,026	3,244	2,842	3,022	21.4	8.0	14.5
I-576 - Southern Beltway																		
SB Rte. 30				2	18	27	31	36	29	38	26	31	37	29	37	16.6	(0.5)	7.7
SB Westport Rd.				1	6	14	56	58	33	37	45	84	146	183	183	44.3	37.6	40.9
Rte. 22				24	210	249	287	311	312	322	356	391	470	426	444	8.9	6.6	7.8
Subtotal				28	234	290	375	405	375	397	427	506	653	637	664	11.2	10.8	11.0
Delaware River Bridge																		
DRB														3,127	2,836	-	-	-
All Barrier Facilities																		
Total	6,244	6,650	6,967	7,608	9,060	9,385	8,801	9,865	10,592	11,328	12,072	13,722	13,446	12,780	13,338	4.6	3.3	3.9
Percent Change Over Prior Year	(0.9)	6.5	4.8	9.2	19.1	3.6	(6.2)	12.1	7.4	6.9	6.6	13.7	(2.0)	(5.0)	4.4			

(1) Toll rate increases were generally implemented annually from 2009 through 2017. Oftentimes, I-576 was exempted from the programed toll increases. Refer to Table 2-1 for details.
(1) Toll 60 (Turnpike 376) ramp counts were not available from 2002 to 2006.
(2) Toll 66 ramp counts were not available from 2002 to 2005.
(3) On July 11, 2011, the West Virginia section of Turnpike 43 was opened.
(4) In January of 2016, toll collection on the Delaware River Bridge was converted from bidirectional to westbound only, and became a barrier plaza instead of the eastern terminus of the Ticket System.
(5) Transactions were negatively impacted from 1/1/2017 through 3/9/2017 due to the closure of the bridge because of a fracture in a structural support beam.

Table 2-7
Total Vehicles - Average Daily Transactions on the Turnpike Barrier System
Includes Revenue and Non-Revenue Vehicles

Toll Location	Calendar Year (1) 2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Average Annual Percent Change 2007-12	2012-17	2007-17
Northeast Extension Barrier Plazas																		
Keyser Ave.	7,192	7,657	7,581	7,800	8,144	8,144	8,318	8,300	8,462	8,492	8,761	8,660	8,724	8,343	8,326	0.8	(0.4)	0.2
Clarks Summit	7,449	7,678	7,557	7,656	7,903	7,887	7,897	7,752	7,822	7,930	8,639	8,571	8,246	7,728	7,533	0.1	(1.0)	(0.5)
Subtotal	14,641	15,335	15,138	15,456	16,047	16,031	16,215	16,052	16,284	16,422	17,401	17,231	16,970	16,071	15,859	0.5	(0.7)	(0.1)
Turnpike I-376 - Beaver Valley Expressway (1)																		
East Toll 376	11,086	11,149	11,249	11,165	11,824	11,836	11,239	11,390	11,561	11,377	10,965	10,801	10,777	10,303	10,257	(0.8)	(2.1)	(1.4)
Beaver Falls Rte. 551					471	497	461	503	490	496	476	435	461	434	469	1.0	(1.1)	(0.0)
Moravia Rte. 168					853	953	766	747	869	861	801	809	782	728	732	0.2	(3.2)	(1.5)
West Toll 376	7,046	7,296	7,727	8,044	8,658	8,803	8,651	8,934	8,844	8,655	8,381	8,572	8,605	8,483	8,733	(0.0)	0.2	0.1
Mt. Jackson Rte. 108					1,375	1,665	1,503	1,334	1,306	1,258	1,154	1,101	1,135	1,134	1,184	(1.8)	(1.2)	(1.5)
Subtotal	18,132	18,445	18,976	19,210	23,180	23,754	22,620	22,908	23,070	22,648	21,776	21,717	21,760	21,082	21,375	(0.5)	(1.1)	(0.8)
Turnpike 66 - Amos K. Hutchinson Bypass (2)																		
Rte. 136				343	808	989	873	907	914	916	885	1,497	982	926	923	2.5	0.1	1.3
AKH Mainline	12,288	12,676	12,995	13,988	14,378	14,473	14,124	14,537	14,280	14,191	14,093	14,331	14,137	13,499	13,697	(0.3)	(0.7)	(0.5)
Route 30				1,003	3,178	4,899	4,910	5,221	5,101	5,001	4,938	4,930	4,883	4,823	4,795	9.5	(0.8)	4.2
Route 130				243	1,298	1,399	1,400	1,423	1,485	1,362	1,354	1,409	1,362	1,354	1,354	1.0	(0.1)	0.4
Route 66				122	595	778	754	770	793	776	771	855	833	868	846	5.5	1.7	3.6
Subtotal	12,288	12,676	12,995	15,699	20,256	22,539	22,062	22,858	22,572	22,245	22,041	23,022	22,198	21,469	21,614	1.9	(0.6)	0.7
Turnpike 43 - Mon/Fayette Expressway (3)																		
Ramp M4	31	30	28	33	40	34	23	23	151	306	323	316	321	303	300	50.4	(0.4)	22.4
M5	1,945	2,020	2,110	2,210	2,292	2,453	2,541	2,752	3,833	5,462	5,889	6,482	6,879	6,797	6,850	19.0	4.6	11.6
Ramp M15								13	115	93	90	91	102	89	91	-	(0.4)	-
Ramp M18								120	244	300	310	301	363	333	311	-	0.7	-
M19								457	3,845	4,974	5,501	5,758	6,338	6,406	6,269	-	4.7	-
Ramp M22											215	184	210	166	163	-	-	-
Ramp M26											758	791	869	817	858	-	-	-
M35 California	2,812	9,679	9,669	10,075	10,608	11,008	10,849	11,088	10,981	11,298	11,414	11,651	12,047	11,506	11,199	1.3	(0.2)	0.5
Ramp M39	1,819	929	891	989	1,062	1,087	1,085	1,107	1,118	1,101	1,101	1,067	1,089	1,090	1,073	0.7	(0.5)	0.1
Ramp M44		773	753	799	792	817	736	721	718	698	694	703	793	770	800	(2.5)	2.8	0.1
Ramp M48		2,649	2,872	2,995	3,277	3,368	3,416	3,544	3,563	3,634	3,613	3,707	4,219	3,937	3,962	2.1	1.7	1.9
M52	5,781	6,433	6,863	7,208	7,289	7,478	7,306	7,304	7,305	7,637	7,415	7,230	7,116	6,952	7,027	0.9	(1.7)	(0.4)
Subtotal	12,387	22,513	23,186	24,309	25,360	26,245	25,956	27,129	31,873	35,503	37,324	38,281	40,348	39,167	38,903	7.0	1.8	4.4
I-576 - Southern Beltway																		
SB Rte. 30				82	184	250	293	334	394	593	328	342	342	307	427	26.4	(6.4)	8.8
SB Westport Rd.				60	131	144	209	218	196	227	236	333	494	523	522	11.7	18.1	14.9
Rte. 22				557	3,124	3,569	4,014	4,208	4,447	4,531	4,361	4,546	4,702	4,716	4,807	7.7	1.2	4.4
Subtotal				699	3,438	3,963	4,517	4,760	5,037	5,351	4,925	5,220	5,538	5,546	5,756	9.3	1.5	5.3
Delaware River Bridge																		
DRB														18,450	16,234	-	-	-
All Barrier Facilities																		
Total	57,448	68,970	70,295	75,373	88,281	92,531	91,371	93,707	98,836	102,169	103,467	105,471	106,814	121,785	119,741	3.0	3.2	3.1
Percent Change Over Prior Year	8.9	20.1	1.9	7.2	17.1	4.8	(1.3)	2.6	5.5	3.4	1.3	1.9	1.3	14.0	(1.7)			

(1) Toll rate increases were generally implemented annually from 2009 through 2017. Oftentimes, I-576 was exempted from the programed toll increases. Refer to Table 2-1 for details.
(1) Toll 60 (Turnpike 376) ramp counts were not available from 2002 to 2006.
(2) Toll 66 ramp counts were not available from 2002 to 2005.
(3) On July 11, 2011, the West Virginia section of Turnpike 43 was opened.
(4) In January of 2016, toll collection on the Delaware River Bridge was converted from bidirectional to westbound only, and became a barrier plaza instead of the eastern terminus of the Ticket System.
(5) Transactions were negatively impacted from 1/1/2017 through 3/9/2017 due to the closure of the bridge because of a fracture in a structural support beam.

Table 2-8

Ticket System (Including Gateway Barrier Plaza) - Monthly Transaction and Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

Passenger Cars

Month	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	11,720	2.3	11,995	0.1	12,013	0.1	12,029
July	12,128	3.8	12,583	(3.1)	12,196	(1.4)	12,020
August	12,285	2.0	12,525	(1.4)	12,348	0.1	12,357
September	11,123	2.2	11,362	1.0	11,480	(0.8)	11,386
October	11,876	1.6	12,064	(1.9)	11,836	(0.1)	11,826
November	10,760	4.8	11,281	0.2	11,301	(1.0)	11,185
December	10,902	3.7	11,302	(2.6)	11,005	(2.5)	10,725
January	9,619	(0.1)	9,605	4.4	10,033	(1.8)	9,851
February	9,101	7.0	9,738	(5.3)	9,226	1.2	9,339
March	10,627	5.1	11,168	(5.2)	10,589		
April	11,381	(3.8)	10,953	2.7	11,247		
May	11,978	(2.2)	11,717	1.2	11,855		
Total Year	133,500	2.1	136,294	(0.9)	135,128		
June - Feb	99,514	3.0	102,456	(1.0)	101,437	(0.7)	100,717

Commercial Vehicles

Month	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	1,852	6.7	1,976	2.6	2,028	(0.1)	2,025
July	1,910	4.6	1,998	(3.5)	1,927	(1.5)	1,898
August	1,862	4.8	1,951	6.7	2,082	0.1	2,084
September	1,838	4.7	1,925	0.8	1,941	(2.0)	1,903
October	1,960	1.9	1,997	(3.4)	1,930	3.6	2,000
November	1,648	6.1	1,748	1.6	1,777	3.3	1,835
December	1,700	3.7	1,763	(1.7)	1,732	(1.1)	1,713
January	1,606	(3.3)	1,552	5.8	1,642	5.8	1,738
February	1,518	5.8	1,606	(5.8)	1,514	6.6	1,614
March	1,763	6.0	1,869	(3.9)	1,796		
April	1,863	(0.3)	1,858	(2.8)	1,807		
May	1,910	0.9	1,927	3.9	2,003		
Total Year	21,430	3.5	22,172	0.0	22,179		
June - Feb	15,894	3.9	16,517	0.3	16,573	1.4	16,811

Total Vehicles

Month	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	13,572	2.9	13,971	0.5	14,041	0.1	14,054
July	14,039	3.9	14,581	(3.1)	14,123	(1.4)	13,919
August	14,147	2.3	14,476	(0.3)	14,430	0.1	14,441
September	12,961	2.5	13,287	1.0	13,421	(1.0)	13,289
October	13,836	1.6	14,061	(2.1)	13,766	0.4	13,826
November	12,408	5.0	13,029	0.4	13,078	(0.4)	13,019
December	12,602	3.7	13,065	(2.5)	12,738	(2.3)	12,439
January	11,225	(0.6)	11,158	4.6	11,675	(0.7)	11,588
February	10,619	6.8	11,345	(5.3)	10,740	2.0	10,953
March	12,390	5.2	13,037	(5.0)	12,384		
April	13,244	(3.3)	12,812	1.9	13,054		
May	13,888	(1.8)	13,644	1.6	13,858		
Total Year	154,930	2.3	158,466	(0.7)	157,307		
June - Feb	115,408	3.1	118,973	(0.8)	118,010	(0.4)	117,528

Toll Revenue (in $1,000s)

Passenger Cars

Month	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	$44,313	6.9	$47,358	6.4	$50,374	8.9	$54,875
July	47,889	10.2	52,753	5.5	55,659	5.0	58,459
August	49,295	5.9	52,191	1.3	52,888	8.1	57,199
September	39,577	10.7	43,823	9.6	48,028	3.7	49,807
October	42,096	8.2	45,567	5.9	48,264	5.5	50,936
November	39,415	10.7	43,632	5.6	46,084	5.9	48,799
December	38,616	9.0	42,110	5.4	44,375	3.9	46,096
January	33,269	8.1	35,973	9.8	39,489	4.0	41,070
February	30,588	15.0	35,190	2.0	35,898	9.1	39,149
March	38,006	13.9	43,273	(0.9)	42,900		
April	42,423	1.4	42,999	14.5	49,234		
May	47,368	1.7	48,163	7.4	51,721		
Total Year	$492,853	8.2	$533,031	6.0	$564,915		
June - Feb	$365,056	9.2	$398,596	5.6	$421,060	6.0	$446,391

Commercial Vehicles

Month	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	$32,122	12.1	$36,014	8.7	$39,137	4.7	$40,969
July	32,910	9.5	36,048	4.1	37,543	2.5	38,493
August	32,392	9.1	35,345	12.5	39,776	6.6	42,397
September	31,894	9.2	34,839	7.8	37,555	3.4	38,829
October	33,863	6.5	36,072	1.3	36,541	12.0	40,913
November	28,909	9.5	31,665	7.0	33,896	10.8	37,560
December	29,865	6.8	31,906	6.0	33,828	6.0	35,866
January	30,336	3.4	31,378	9.0	34,189	14.2	39,045
February	28,569	13.2	32,343	(2.2)	31,628	17.3	37,084
March	33,479	10.8	37,096	2.3	37,948		
April	34,384	6.6	36,662	1.8	37,308		
May	34,854	7.7	37,552	6.9	40,145		
Total Year	$383,576	8.7	$416,919	5.4	$439,495		
June - Feb	$280,859	8.8	$305,610	6.0	$324,093	8.4	$351,157

Total Vehicles

Month	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	$76,435	9.1	$83,371	7.4	$89,511	7.1	$95,844
July	80,798	9.9	88,801	5.0	93,201	4.0	96,952
August	81,686	7.2	87,536	5.9	92,665	7.5	99,596
September	71,471	10.1	78,662	8.8	85,583	3.6	88,636
October	75,959	7.5	81,639	3.9	84,805	8.3	91,850
November	68,323	10.2	75,297	6.2	79,980	8.0	86,360
December	68,480	8.1	74,016	5.7	78,203	4.8	81,962
January	63,605	5.9	67,351	9.4	73,678	8.7	80,116
February	59,157	14.2	67,533	(0.0)	67,526	12.9	76,233
March	71,485	12.4	80,369	0.6	80,848		
April	76,807	3.7	79,661	8.6	86,542		
May	82,222	4.2	85,715	7.2	91,866		
Total Year	$876,429	8.4	$949,950	5.7	$1,004,410		
June - Feb	$645,915	9.0	$704,206	5.8	$745,154	7.0	$797,547

NOTES:

(1) Toll increases occur every year with exceptions. Refer to Table 2-1 for details.

(2) Leap year occurred in 2016, resulting in negative traffic and toll revenue impacts in February 2017 compared to February 2016.

(3) Abnormally severe winter weather negatively impacted traffic and toll revenue in January and February 2014, particularly among passenger cars.

(4) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.

(5) Before January 2016, Delaware River Bridge traffic and revenue were included in Ticket System reporting.

In FY 2017-18, through February, passenger-car transactions decreased by 0.7% compared to the same period in FY 2016-17. The months of September and December in 2017 both had one less weekday compared to the same months in 2016. The months of November 2017 through January 2018 were negatively impacted by abnormally severe winter weather.

Growth in passenger-car toll revenue was much stronger than growth in transactions due to annual toll rate increases. Passenger-car toll revenue increased 8.2% in FY 2015-16 and 6.0% in FY 2016-17. In the current fiscal year, passenger-car toll revenue on the Ticket System increased by 6% through February 2018 compared to the same period in the previous year.

Commercial-vehicle transactions increased 3.5% in in FY 2014-15, and 0.0% in FY 2015-16. Year-to-date, FY 2017-18 commercial-vehicle transactions increased by 1.4% over the same period in the prior year. Annual toll revenue increased 8.7% in FY 2015-16, 5.4% in FY 2016-17, and 8.4% in FY 2017-18 through February 2018. These increases in toll revenue were driven primarily by annual toll rate increases and by increased transactions.

Total Ticket System transactions increased by 2.3% in FY 2015-16 and decreased by 0.7% in FY 2016-17. In FY 2017-18, transactions through February 2018 decreased compared to the same period in the prior year by 0.4%. Total Ticket System toll revenue increased by 8.4% in FY 2015-16, and by 5.7% in FY 2016-17. Toll revenue year to date in FY 2017-18 (through February 2018) increased by 7% compared to the same period in the prior year.

2.4.2 Barrier System Monthly Trends

Table 2-9 presents monthly transaction and toll revenue trends for the Barrier System. Passenger-car transactions increased by 1.5% in FY 2014-15, by 7.9% in FY 2015-16, and by 6.8% in FY 2016-17. Passenger-car transactions increased by 1.5% in FY 2017-18 year-to-date compared to the previous year. A positive impact in toll transactions can be seen from January 2016 through December 2016 due to the addition of the Delaware River Bridge (plaza 359) transactions to the Barrier System. The negative impact associated with the temporary DRB closure can be seen in January through March 2017. The large percent increases in transactions in January and February 2018 compared to the prior year are due to the returned traffic on the DRB. September and December 2017 had one less weekday compared to the same months in 2016.

Passenger-car toll revenue increased by 37.5% in FY 2015-16, and by 33.7% in FY 2016-17. In the FY 2017-18, passenger-car toll revenue increased by 6.4% through February 2018 compared to the same period in the previous year. These large toll revenue increases are due to the annual toll rate increases and to inclusion of the DRB toll revenue into the Barrier System.

Commercial-vehicle transactions increased 9.2% in FY 2015-16, and by 7.3% in FY 2016-17. Year-to-date, FY 2017-18 commercial-vehicle transactions increased 9.7% over the same period in the prior year. Commercial-vehicle toll revenue increased by 49.9% in FY 2015-16, and by 39.0% in FY 2016-17. FY 2017-18 commercial-vehicle toll revenue increased by 13.8% through February 2018. These increases in toll revenue were driven by increased transactions, particularly the inclusion of the DRB, and by annual toll increases.

Table 2-9

Combined Barrier Facilities - Monthly Transaction and Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	2,816	1.3	2,854	18.5	3,382	0.8	3,409	409	3.0	421	23.9	522	5.2	549	3,225	1.6	3,275	19.2	3,904	1.4	3,958
July	3,009	1.7	3,060	17.2	3,587	(2.4)	3,502	441	(2.1)	431	14.1	492	5.9	521	3,450	1.2	3,491	16.9	4,079	(1.4)	4,023
August	3,140	(2.6)	3,059	18.3	3,619	(0.5)	3,600	439	(0.0)	439	21.7	534	8.1	578	3,579	(2.3)	3,498	18.7	4,154	0.6	4,178
September	2,851	0.3	2,858	16.8	3,337	0.0	3,338	437	0.5	439	14.1	501	5.5	529	3,288	0.3	3,297	16.4	3,839	0.7	3,867
October	3,001	0.1	3,004	13.2	3,399	(0.1)	3,395	452	0.2	452	10.4	500	9.5	547	3,452	0.1	3,456	12.8	3,899	1.1	3,942
November	2,597	3.3	2,684	17.7	3,158	(0.8)	3,133	363	3.8	377	21.9	459	6.2	488	2,960	3.4	3,060	18.2	3,617	0.1	3,620
December	2,589	2.7	2,658	14.6	3,046	(0.8)	3,021	347	2.0	353	19.1	421	2.7	432	2,936	2.6	3,011	15.1	3,467	(0.4)	3,453
January	2,286	16.8	2,670	(3.5)	2,576	4.5	2,692	329	19.8	394	(5.7)	372	17.7	438	2,616	17.2	3,065	(3.8)	2,948	6.2	3,129
February	2,148	27.5	2,738	(20.3)	2,181	20.1	2,619	304	28.0	389	(22.5)	302	39.2	420	2,453	27.5	3,127	(20.6)	2,483	22.4	3,039
March	2,585	22.3	3,160	(10.5)	2,827			379	23.7	468	(10.3)	420			2,963	22.5	3,629	(10.5)	3,247		
April	2,728	15.5	3,152	0.0	3,152			399	19.0	475	(2.8)	462			3,127	16.0	3,627	(0.4)	3,614		
May	2,942	14.8	3,378	0.8	3,405			415	22.1	507	6.5	539			3,357	15.7	3,885	1.5	3,945		
Total Year	32,692	7.9	35,274	6.8	37,671			4,714	9.2	5,147	7.3	5,524			37,406	8.1	40,422	6.9	43,195		
June - Feb	24,437	4.7	25,584	10.6	28,286	1.5	28,708	3,521	5.0	3,697	11.0	4,103	9.7	4,501	27,958	4.7	29,281	10.6	32,389	2.5	33,209

Toll Revenue (in $1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	$3,445	5.5	$3,633	89.9	$6,899	1.5	$7,002	$1,516	5.6	$1,601	120.1	$3,524	4.3	$3,674	$4,961	5.5	$5,234	99.1	$10,423	2.4	$10,677
July	3,638	6.5	3,873	88.9	7,316	(0.7)	7,263	1,627	0.3	1,631	104.3	3,333	3.6	3,454	5,265	4.5	5,504	93.5	10,649	0.6	10,717
August	3,771	2.9	3,881	87.9	7,291	1.7	7,413	1,602	2.2	1,638	117.4	3,561	7.1	3,813	5,373	2.7	5,518	96.6	10,851	3.4	11,226
September	3,465	3.8	3,596	87.5	6,741	1.1	6,813	1,596	2.3	1,634	109.9	3,429	3.3	3,543	5,062	3.3	5,229	94.5	10,171	1.8	10,355
October	3,615	4.1	3,764	79.4	6,754	1.7	6,870	1,644	4.3	1,714	95.6	3,353	9.9	3,686	5,259	4.2	5,478	84.5	10,107	4.4	10,556
November	3,120	8.4	3,381	87.9	6,352	(0.5)	6,323	1,341	6.7	1,432	123.8	3,204	5.6	3,384	4,461	7.9	4,812	98.6	9,556	1.6	9,706
December	3,151	5.9	3,336	85.5	6,187	1.0	6,249	1,290	5.2	1,357	124.9	3,053	2.7	3,133	4,440	5.7	4,693	96.9	9,240	1.5	9,382
January	2,869	78.8	5,130	(4.8)	4,885	16.1	5,671	1,273	114.4	2,728	(11.7)	2,408	32.0	3,177	4,141	89.7	7,858	(7.2)	7,293	21.3	8,848
February	2,695	102.0	5,443	(43.8)	3,059	77.4	5,428	1,184	134.8	2,779	(53.1)	1,305	133.5	3,046	3,879	112.0	8,222	(46.9)	4,364	94.2	8,474
March	3,271	90.0	6,215	(17.4)	5,133			1,461	120.9	3,227	(17.2)	2,671			4,732	99.5	9,442	(17.3)	7,804		
April	3,449	81.9	6,276	2.8	6,449			1,529	115.1	3,288	(1.7)	3,232			4,978	92.1	9,563	1.2	9,680		
May	3,711	81.5	6,736	1.0	6,806			1,559	116.6	3,378	7.2	3,622			5,271	91.9	10,114	3.1	10,427		
Total Year	$40,201	37.5	$55,263	33.7	$73,872			$17,621	49.9	$26,406	39.0	$36,694			$57,822	41.2	$81,670	35.4	$110,566		
June - Feb	$29,769	21.1	$36,037	54.0	$55,484	6.4	$59,030	$13,072	26.3	$16,514	64.5	$27,169	13.8	$30,911	$42,841	22.7	$52,550	57.3	$82,654	8.8	$89,941

NOTES:
(1) Toll increases occur every year with exceptions. Refer to Table 2-1 for details.
(2) Leap year occurred in 2016, resulting in negative traffic and toll revenue impacts in February 2017 compared to February 2016.
(3) Abnormally severe winter weather negatively impacted traffic and toll revenue in January and February 2014, particularly among passenger cars.
(4) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(5) Before January 2016, Delaware River Bridge traffic and revenue were included in Ticket System reporting.

Total Barrier System transactions increased by 8.1% in FY 2015-16, and by 6.9% in FY 2016-17. In FY 2017-18, transactions through February 2018 increased over the same time-period in the prior year by 2.5%. Total Barrier System toll revenue increased by 41.2% in FY 2015-16, and by 35.4% in FY 2016-17. Toll revenue year to date in FY 2017-18 has increased by 8.8% compared to the same period in the prior year. Positive impacts to the Barrier System are seen from January 2016 through December 2016 due to adding the Delaware River Bridge transactions to Barrier System (they were previously counted in the Ticket System). The recovery of traffic on the DRB is seen in January and February 2017 compared to the same period in the prior year.

2.4.3 Total Turnpike System Monthly Trends

Table 2-10 presents the monthly transaction and toll revenue trends for the total Turnpike System. Passenger-car transactions increased by 3.2% in FY 2015-16, and 0.7% in FY 2016-17. Passenger-car transactions decreased by 0.2% in FY 2017-18 year-to-date compared to the previous year. Passenger-car toll revenue increased at a faster annual rate than transactions due to toll increases that were implemented each year. Passenger-car toll revenue increased 10.4% in FY 2015-16, 8.6% in FY 2016-17, and 6.1% through February 2018 compared to the same time-period in the previous year.

Commercial-vehicle transactions increased 4.5% in FY 2015-16, 1.4% in FY 2016-17, and 3.1% in FY 2017-18 over the same period in the prior year. Toll revenue increased 10.5% in FY 2015-16, 7.4% in FY 2016-17, and 8.8% in FY 2017-18 through February 2018.

Total transactions increased 3.4% in FY 2015-16, 0.8% in FY 2016-17, and 0.2% in FY 2017-18 over the same period in the prior year. Toll revenue increased 10.4% in FY 2015-16, 8.1% in FY 2016-17, and 7.2% in FY 2017-18 through February 2018.

Transactions and toll revenue were negatively impacted by the temporary closure of the DRB from January 20 through March 9, 2017. CDM Smith estimated that the DRB closure caused a total Systemwide decrease of 1.5 million transactions and $12.1 million in toll revenue in FY 2016-17.

2.5 Comparison of Commercial Activity and Total Turnpike Toll Transactions

Table 2-11 presents a comparison between three measures of economic growth, and transaction growth on the Turnpike System from 2010 through 2017. Annual percent changes in Turnpike System transactions over the prior year are compared to annual percent changes in the U.S. gross domestic product (GDP), the Tri-State (NJ, NY, PA) gross regional product (GRP), and the PA gross state product (GSP). U.S. gross domestic product (GDP) is actual through 2017, while the gross regional product and gross state product data for 2017 are estimates.

Passenger-car transactions increased by 2.3 percent in 2015, 3.1 percent in 2016 and decreased by 1.1 percent in 2017. Commercial vehicle growth, increased 3.9 percent in 2015, 4.2 percent in 2016 and 0.2 percent in 2017. The U.S. GDP, Tri-State GRP, and PA GSP all experienced growth in 2017.

While there is a correlation between economic activity and Turnpike System toll transactions, it is likely that transactions are also being dampened by the annual toll rate increases that have been implemented since 2009. 2017 Turnpike transactions were also negatively impacted by the temporary closure of the DRB from January 20, 2017 through March 9, 2017.

Table 2-10
Total Turnpike System - Monthly Transaction and Revenue Trends
Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	14,535	2.2	14,849	3.7	15,395	0.3	15,438	2,261	6.0	2,398	6.4	2,550	1.0	2,575	16,797	2.7	17,246	4.1	17,945	0.4	18,013
July	15,138	3.3	15,643	0.9	15,783	(1.7)	15,522	2,351	3.3	2,429	(0.4)	2,419	(0.0)	2,419	17,489	3.3	18,072	0.7	18,202	(1.4)	17,942
August	15,425	1.0	15,584	2.5	15,967	(0.1)	15,957	2,301	3.9	2,390	9.5	2,616	1.7	2,662	17,726	1.4	17,974	3.4	18,583	0.2	18,619
September	13,974	1.8	14,220	4.2	14,817	(0.6)	14,724	2,275	3.9	2,364	3.3	2,442	(0.4)	2,431	16,249	2.1	16,584	4.1	17,260	(0.6)	17,156
October	14,876	1.3	15,067	1.1	15,236	(0.1)	15,221	2,412	1.6	2,450	(0.8)	2,429	4.9	2,547	17,288	1.3	17,517	0.8	17,665	0.6	17,768
November	13,358	4.5	13,965	3.5	14,458	(1.0)	14,317	2,011	5.7	2,125	5.2	2,236	3.9	2,323	15,368	4.7	16,090	3.8	16,695	(0.3)	16,640
December	13,491	3.5	13,960	0.7	14,051	(2.2)	13,746	2,046	3.4	2,116	1.7	2,153	(0.4)	2,146	15,537	3.5	16,076	0.8	16,204	(1.9)	15,891
January	11,905	3.1	12,276	2.7	12,609	(0.5)	12,542	1,935	0.6	1,947	3.4	2,014	8.0	2,175	13,840	2.8	14,222	2.8	14,622	0.7	14,718
February	11,249	10.9	12,477	(8.6)	11,407	4.8	11,958	1,822	9.5	1,996	(9.0)	1,815	12.0	2,034	13,072	10.7	14,472	(8.6)	13,223	5.8	13,992
March	13,211	8.5	14,328	(6.4)	13,416			2,142	9.2	2,338	(5.2)	2,216			15,353	8.5	16,666	(6.2)	15,632		
April	14,109	(0.0)	14,105	2.1	14,400			2,262	3.1	2,333	(2.8)	2,268			16,371	0.4	16,438	1.4	16,668		
May	14,921	1.2	15,095	1.1	15,260			2,325	4.7	2,434	4.5	2,542			17,245	1.6	17,529	1.6	17,802		
Total Year	166,192	3.2	171,569	0.7	172,799			26,144	4.5	27,319	1.4	27,703			192,336	3.4	198,887	0.8	200,501		
June - Feb	123,951	3.3	128,040	1.3	129,723	(0.2)	129,425	19,415	4.1	20,214	2.3	20,676	3.1	21,312	143,366	3.4	148,254	1.4	150,399	0.2	150,737

Toll Revenue (in $1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	$47,759	6.8	$50,991	12.3	$57,273	8.0	$61,877	$33,638	11.8	$37,614	13.4	$42,661	4.6	$44,643	$81,397	8.9	$88,606	12.8	$99,935	6.6	$106,521
July	51,527	9.9	56,625	11.2	62,975	4.4	65,722	34,536	9.1	37,680	8.5	40,876	2.6	41,947	86,063	9.6	94,305	10.1	103,851	3.7	107,669
August	53,065	5.7	56,072	7.3	60,179	7.4	64,611	33,994	8.8	36,983	17.2	43,337	6.6	46,210	87,060	6.9	93,054	11.2	103,516	7.1	110,821
September	43,042	10.2	47,419	15.5	54,770	3.4	56,620	33,490	8.9	36,472	12.4	40,984	3.4	42,371	76,532	9.6	83,891	14.1	95,754	3.4	98,991
October	45,711	7.9	49,331	11.5	55,018	5.1	57,806	35,507	6.4	37,786	5.6	39,895	11.8	44,599	81,218	7.3	87,117	8.9	94,912	7.9	102,405
November	42,534	10.5	47,013	11.5	52,436	5.1	55,122	30,250	9.4	33,096	12.1	37,100	10.4	40,944	72,785	10.1	80,109	11.8	89,536	7.3	96,066
December	41,766	8.8	45,446	11.3	50,563	3.5	52,345	31,154	6.8	33,264	10.9	36,880	5.7	39,000	72,921	7.9	78,709	11.1	87,443	4.5	91,344
January	36,138	13.7	41,103	8.0	44,374	5.3	46,741	31,609	7.9	34,106	7.3	36,597	15.4	42,222	67,747	11.0	75,209	7.7	80,971	9.9	88,964
February	33,282	22.1	40,633	(4.1)	38,957	14.4	44,576	29,753	18.0	35,122	(6.2)	32,933	21.9	40,130	63,035	20.2	75,755	(5.1)	71,890	17.8	84,707
March	41,277	19.9	49,488	(2.9)	48,033			34,940	15.4	40,322	0.7	40,619			76,218	17.8	89,811	(1.3)	88,653		
April	45,872	7.4	49,275	13.0	55,683			35,912	11.2	39,950	1.5	40,540			81,784	9.1	89,224	7.8	96,223		
May	51,080	7.5	54,899	6.6	58,526			36,413	12.4	40,930	6.9	43,767			87,493	9.5	95,829	6.7	102,293		
Total Year	$533,054	10.4	$588,295	8.6	$638,787			$401,197	10.5	$443,325	7.4	$476,188			$934,251	10.4	$1,031,620	8.1	$1,114,975		
June - Feb	$394,825	10.1	$434,633	9.6	$476,545	6.1	$505,421	$293,931	9.6	$322,123	9.0	$351,263	8.8	$382,067	$688,756	9.9	$756,756	9.4	$827,807	7.2	$887,488

NOTES:
(1) Toll increases occur every year with exceptions. Refer to Table 2-1 for details.
(2) Leap year occurred in 2016, resulting in negative traffic and toll revenue impacts in February 2017 compared to February 2016.
(3) Abnormally severe winter weather negatively impacted traffic and toll revenue in January and February 2014, particularly among passenger cars.
(4) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(5) Before January 2016, Delaware River Bridge traffic and revenue were included in Ticket System reporting.

Table 2-11
Near-term Measures of Commercial Activity and Growth in Total Turnpike System Transactions

Percent Change over Prior Year

Calendar Year	Gross Domestic Product Growth(1) (U.S.)	Gross Regional Product Growth(1) (NJ, NY, PA)	Gross State Product Growth(1) (PA)	PA Turnpike System Percent Transaction Growth(2) Passenger Cars	Commercial Vehicles	All Vehicles
2010	2.5%	2.6%	2.7%	1.0%	4.0%	1.3%
2011	1.6%	0.4%	1.3%	-1.1%	1.0%	-0.9%
2012	2.2%	2.5%	1.6%	0.3%	0.6%	0.3%
2013	1.7%	0.6%	1.6%	0.6%	3.0%	0.9%
2014	2.6%	1.5%	2.0%	0.0%	4.2%	0.5%
2015	2.9%	1.9%	2.3%	2.3%	3.9%	2.5%
2016	1.5%	0.5%	0.6%	3.1%	4.2%	3.3%
2017	2.3%	1.6%	1.9%	-1.1%	0.2%	-0.9%

(1) The percent changes in U.S. GDP, GRP, and GSP are based on chained 2009 dollars. The U.S. GDP is actual through 2017. The GRP and GSP are actual through 2016. Actual data was obtained from the U.S. Bureau of Economic Analysis. Forecast data was from Moody's Analytics baseline forecast (April 2018 for regional, February 2018 for Pennsylvania).

(2) Turnpike System growth rates are actual through 2017.

2.6 Annual Transaction and Gross Toll Revenue Trends

Table 2-12 provides a summary of annual total Turnpike System transactions and adjusted gross toll revenue trends from FY 1996-97 through FY 2016-17. Note that transactions and adjusted toll revenue in Table 2-12 reflect final audited Turnpike System totals including adjustments and discounts available from the Commercial Volume Discount Program described earlier in this chapter.

The Turnpike System has experienced decreasing annual growth in transactions and consistent growth in toll revenue. Transaction growth likely decreased in response to the Great Recession, which officially lasted from December 2007 to June 2009, a slow economic recovery, and annual toll rate increases since 2009. Toll revenue increase annually primarily due to the toll rate increases.

Between FY 1996-97 and FY 2006-07, total Turnpike System transactions increased from 144.1 million to 185.4 million, an average annual increase of 2.6%. From FY 2006-07 to FY 2016-17, total turnpike transactions grew from 185.4 million to 200.5 million, an average annual increase of 0.8%. In the 20 years between FY 1996-97 and FY 2016-17, total Turnpike System transactions increased by an annual average of 1.7%. Adjusted Turnpike System toll revenue increased by 6.4% per year from FY 1996-97 through FY 2006-07, by 6.5% per year from FY 2006-07 through FY 2016-17, and by 6.4% per year from FY 1996-97 through FY 2016-17.

Table 2-12
Annual Systemwide Traffic and Adjusted Toll Revenue Trends
Pennsylvania Turnpike System
(Values in Thousands)

	Transactions						Adjusted Toll Revenue					
Fiscal [1] Year	Cars	Percent Change Over Prior Year	Trucks	Percent Change Over Prior Year	Total	Percent Change Over Prior Year	Cars	Percent Change Over Prior Year	Trucks	Percent Change Over Prior Year	Total	Percent Change Over Prior Year
1996-97	126,654		17,479		144,133		179,303		140,837		320,140	
1997-98	132,472	4.6	18,627	6.6	151,099	4.8	186,290	3.9	149,036	5.8	335,326	4.7
1998-99	136,399	3.0	19,833	6.5	156,232	3.4	191,804	3.0	158,761	6.5	350,565	4.5
1999-00	138,762	1.7	21,341	7.6	160,103	2.5	195,301	1.8	172,035	8.4	367,336	4.8
2000-01	141,033	1.6	21,278	(0.3)	162,311	1.4	193,563	(0.9)	172,337	0.2	365,900	(0.4)
2001-02	150,496	6.7	22,298	4.8	172,794	6.5	212,650	9.9	163,101	(5.4)	375,751	2.7
2002-03	156,220	3.8	23,179	4.0	179,399	3.8	219,201	3.1	168,021	3.0	387,222	3.1
2003-04	163,612	4.7	24,407	5.3	188,019	4.8	228,515	4.2	180,229	7.3	408,744	5.6
2004-05 [1]	163,316	(0.2)	25,109	2.9	188,425	0.2	309,032	35.2	236,126	31.0	545,158	33.4
2005-06	160,590	(1.7)	25,311	0.8	185,901	(1.3)	321,268	4.0	267,369	13.2	588,637	8.0
2006-07	160,107	(0.3)	25,316	0.0	185,423	(0.3)	322,781	0.5	269,861	0.9	592,642	0.7
2007-08	164,097	2.5	25,455	0.5	189,552	2.2	332,035	2.9	265,637	(1.6)	597,672	0.8
2008-09 [1]	162,638	(0.9)	23,583	(7.4)	186,220	(1.8)	356,345	7.3	260,047	(2.1)	616,392	3.1
2009-10 [1]	163,599	0.6	22,933	(2.8)	186,531	0.2	415,981	16.7	302,057	16.2	718,038	16.5
2010-11 [1]	165,231	1.0	23,812	3.8	189,043	1.3	435,752	4.8	328,105	8.6	763,856	6.4
2011-12 [1]	164,955	(0.2)	24,125	1.3	189,080	0.0	455,133	4.4	342,646	4.4	797,779	4.4
2012-13 [1]	163,690	(0.8)	24,207	0.3	187,897	(0.6)	471,514	3.6	350,226	2.2	821,740	3.0
2013-14 [1]	163,788	0.1	24,891	2.8	188,679	0.4	497,671	5.5	368,395	5.2	866,066	5.4
2014-15 [1]	166,192	1.5	26,144	5.0	192,336	1.9	533,054	7.1	401,197	8.9	934,251	7.9
2015-16 [1]	171,569	3.2	27,319	4.5	198,887	3.4	588,295	10.4	443,325	10.5	1,031,620	10.4
2016-17 [1]	172,799	0.7	27,703	1.4	200,501	0.8	638,787	8.6	476,188	7.4	1,114,975	8.1

	Average Annual Percent Change					
	Transactions			Adjusted Toll Revenue		
Fiscal Year	Cars	Trucks	Total	Cars	Trucks	Total
FY 1996-97 - FY 2006-07	2.4	3.8	2.6	6.1	6.7	6.4
FY 2006-07 - FY 2016-17	0.8	0.9	0.8	7.1	5.8	6.5
FY 1996-97 - FY 2016-17	1.6	2.3	1.7	6.6	6.3	6.4

(1) PTC Fiscal Years begin June 1 and end May 31.
(2) A toll increase occurred during this fiscal year. Refer to table 2-1.

Figure 2-5 illustrates Turnpike System historical transactions and adjusted gross toll revenue on an annual basis from FY 1997-98 to FY 2016-17. Toll increases are represented by a black star over the fiscal year in which the increase was implemented. Figure 2-5 clearly shows the greater rate of growth in Turnpike System toll revenue compared to the comparatively flat growth in toll transactions since 2009. The low transaction growth rates are attributed to annual toll rate increases since 2009 and a slow economic recovery from the Great recession of 2007.

2.7 E-ZPass Market Share

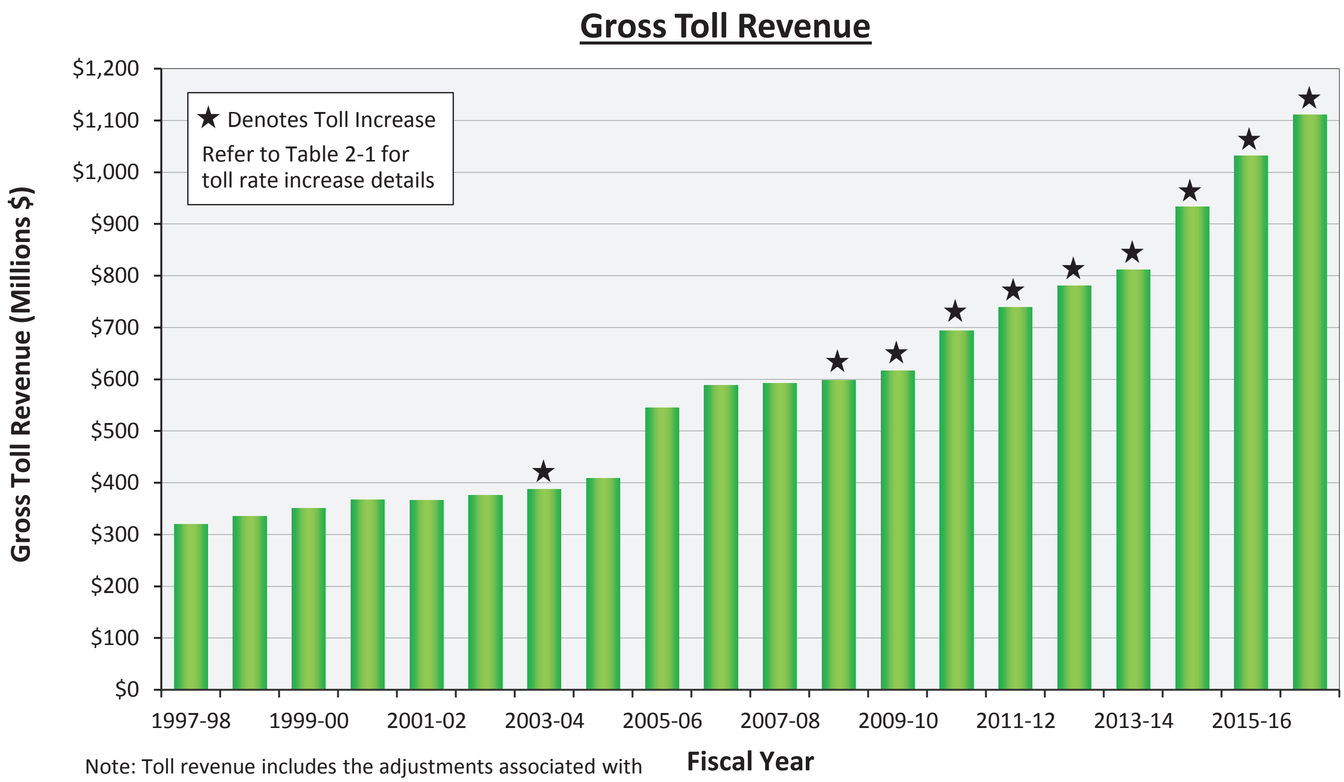
Table 2-13 shows the historical growth in E-ZPass transactions as a percent of total toll transactions on the Turnpike System. Over the past 12 years, passenger-car E-ZPass market share has increased by 35.5 percentage points, from 40.4% to 76.9% of total toll transactions. Commercial-vehicle market share growth has been nearly as large, increasing by 29.4 percentage points, from 60.2% in FY 2005-06 to 89.6% in FY 2016-17. Total Turnpike System E-ZPass usage has grown from 43.2% to 78.7 percent from FY 2005-06 to FY 2016-17.

Table 2-14 presents monthly E-ZPass market share trends on the Ticket System for FY 2016-17. It is apparent from a comparison of Tables 2-13 and 2-14 that the E-ZPass participation was slightly higher on the Ticket System than on the Turnpike System as a whole. Ticket System E-ZPass penetration averaged 78.4% for passenger cars, 89.6% for commercial vehicles, and 80% for all vehicles. Monthly trend data shows that E-ZPass penetration is lowest in the summer months, and peaks in the winter months of January and February. There is less variation in Commercial-vehicle E-ZPass market share by month compared to passenger cars.

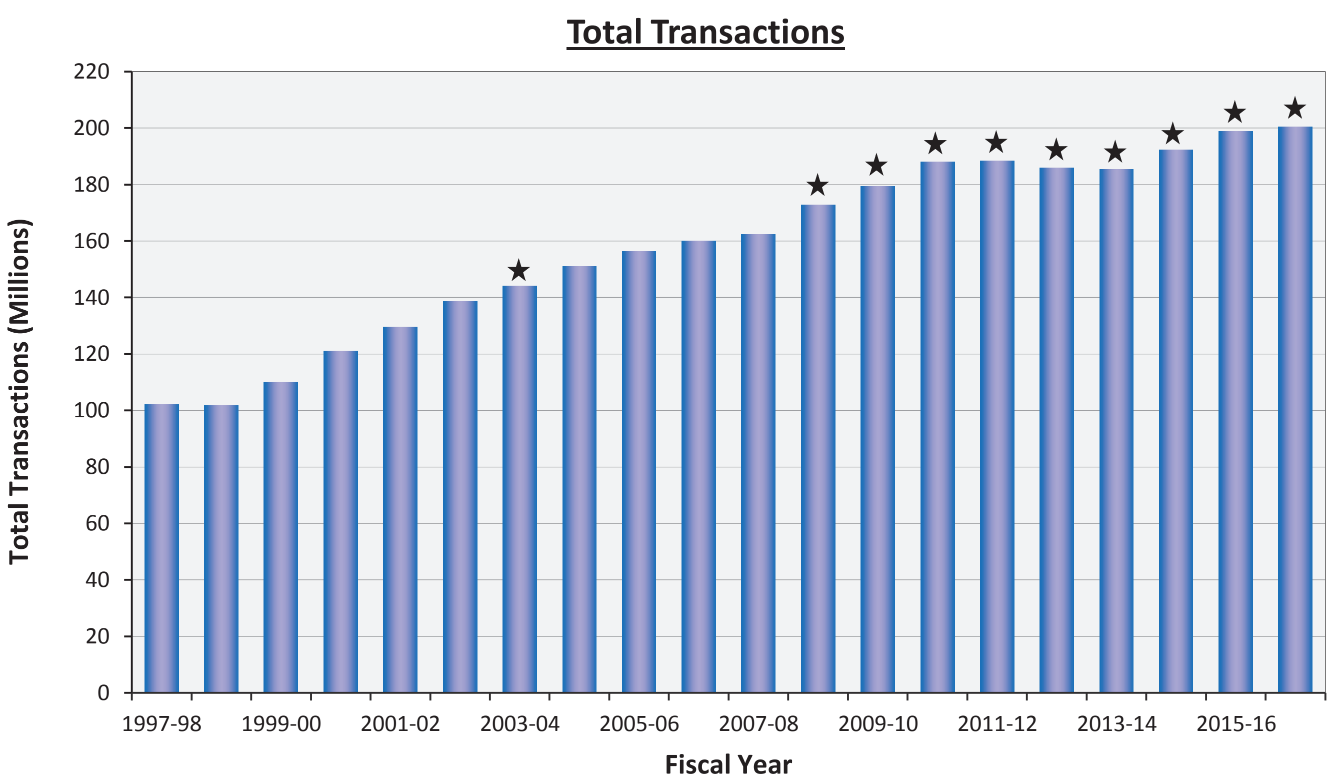
Table 2-13
Annual E-ZPass Market Share: Turnpike System
Based on Toll Transactions

	Annual Percent E-ZPass Market Share By Vehicle Class		
Fiscal[1] Year	Passenger Cars	Commercial Vehicles	Total
2005-06	40.4 %	60.2 %	43.2 %
2006-07	44.3	67.9	47.6
2007-08	46.8	71.1	50.1
2008-09[2]	50.4	74.3	53.4
2009-10[2]	53.9	76.1	56.6
2010-11[2,3]	57.5	77.7	60.1
2011-12[2,3]	61.8	80.0	64.1
2012-13[2,3]	66.1	82.7	68.2
2013-14[2,3]	70.1	85.0	72.0
2014-15[2,3]	72.8	86.7	74.7
2015-16[2]	74.8	88.4	76.7
2016-17[2]	76.9	89.6	78.7

(1) PTC Fiscal Years begin June 1 and end May 31.
(2) A toll increase occurred during this year. Refer to table 2-1.
(3) The toll differential increased between E-ZPass and cash.



Note: Toll revenue includes the adjustments associated with the Commercial Vehicle Volume Discount Program.



PENNSYLVANIA TURNPIKE SYSTEM HISTORICAL TRANSACTIONS AND ADJUSTED GROSS TOLL REVENUE

CDM Smith

FIGURE 2-5

Table 2-14
Monthly E-ZPass Market Share: Ticket System
Based on Toll Transactions Including Gateway Plaza

	FY 2016-17 (1) Percent E-ZPass Market Share By Vehicle Class		
Month	Passenger Cars	Commercial Vehicles	Total Vehicles
June 2016	76.2 %	88.3 %	77.9 %
July	74.4	87.8	76.2
August	76.4	88.5	78.1
September	77.8	88.7	79.3
October	78.3	89.2	79.8
November	78.9	90.1	80.4
December	79.2	90.6	80.7
January 2017	81.0	91.1	82.4
February	80.9	90.9	82.3
March	80.5	90.6	81.9
April	79.3	90.0	80.7
May	79.4	89.7	80.9
FY Total	78.4 %	89.6 %	80.0 %

(1) PTC Fiscal Years begin June 1 and end May 31.

Chapter 3

Socioeconomic Trends and Growth Forecasts

Historical and forecast socioeconomic data was collected and evaluated to understand how the state and the major sub-regions are growing. Discussions with local Metropolitan Planning Organization (MPO) representatives was also conducted to confirm and substantiate the socioeconomic data and understand underlying trends. This information was then used in an econometric analysis to estimate long-term baseline travel demand on the Pennsylvania Turnpike.

3.1 Socioeconomic Trends and Forecasts

An evaluation of long-term socioeconomic trends and forecasts for the areas along and surrounding the Pennsylvania Turnpike provided context and inputs for the traffic growth analysis. The tables and figures that follow, summarize the socioeconomic data which were reviewed, including population, employment, unemployment rates, retail sales, gross regional product, and retail gasoline prices.

An economic growth analysis identified any potential explanatory factors that may have influenced historical growth in toll transactions. Such explanatory factors were tested and applied within a regression-based econometric analysis to derive traffic growth forecasts.

In the subsequent tables, socioeconomic trends are presented as compound average annual percent change (AAPC), mostly in decade increments from 1980 through 2050. It should be noted that year 2016 was the last year in which a full year of historical data was available at the time the analysis was performed. Geographically, the United States is presented along with the Commonwealth of Pennsylvania and the surrounding states of New Jersey, New York, Ohio, and West Virginia. Additionally, the Pennsylvania counties along the Pennsylvania Turnpike are presented in Figure 3-1, and grouped for ease of presentation into four aggregations:

- **Pittsburgh Area Counties:** Allegheny, Armstrong, Beaver, Butler, Indiana, Lawrence, Washington, and Westmoreland;
- **Interurban Area Counties:** Adams, Bedford, Blair, Cambria, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry, Somerset, and York;
- **Philadelphia Area Counties:** Berks, Bucks, Chester, Delaware, Montgomery, and Philadelphia; and,
- **Northeastern Corridor Counties:** Carbon, Lackawanna, Lehigh, Luzerne, Northampton, and Wyoming.

3.1.1 Population Trends and Forecasts

Historical population growth trends and forecasts for the study area are presented in Table 3-1 and Figure 3-2. The historical trends were extracted from data available from the United States Census Bureau (census years and intercensal 2016 estimates), while forecasts of population growth rates are from the Woods & Poole, Inc. 2017 Complete Economic and Demographic Data Source (CEDDS)[1], available through year 2050.

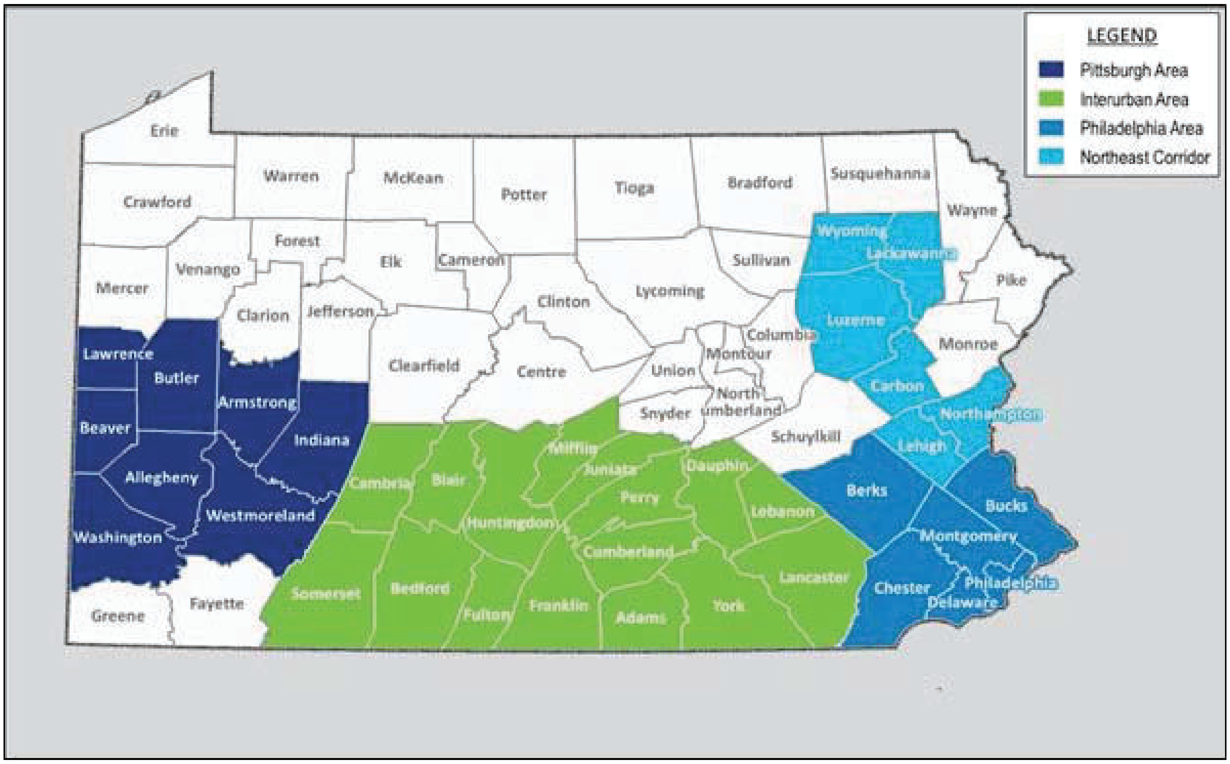


Figure 3-1
Pennsylvania County Groupings

Historic population growth along the Pennsylvania Turnpike and the surrounding states has generally been considerably lower, relative to the US. Pennsylvania's population has increased slowly since 1980, with no growth in that decade, followed by 0.3% annually from 1990 through 2010. Since 2010, the growth declined to 0.1% per year through 2016. In contrast, the U.S. growth rate has been at least three times the rate in Pennsylvania during all time periods.

Population growth along the Pennsylvania Turnpike corridor was similar to statewide growth. This is reasonable considering that the counties in the four aggregations referenced above constitute more than 80% of the statewide total. Within the Pennsylvania Turnpike corridor counties, the Pittsburgh Area has experienced a continuous population decline since the 1980s, whereas the other areas to the east of Pittsburgh experienced modest population growth.

Population is forecasted to generally continue the historical trends, with relatively modest growth rates in Pennsylvania, the surrounding states, and the counties along and surrounding the Turnpike. Pennsylvania population growth is forecasted to average 0.4% annually through 2030, and thereafter decelerate to 0.1% through 2050. Within the Commonwealth, Pittsburgh is forecast to continue contracting; the Northeast Corridor and the Philadelphia Area are forecast to exhibit population

[1] Woods & Poole Economics, Inc. Washington, D.C. Copyright 2017. Woods & Poole does not guarantee the accuracy of this data. The use of this data and the conclusion drawn from it are solely the responsibility of the consultant.

growth like Pennsylvania, and the Interurban counties between Pittsburgh and Philadelphia are forecast to grow relatively faster.

Table 3-1
Population Trends and Forecasts

Geography	History				Forecast		
	1980-'90	1990-'00	2000-'10	2010-'16	2016-'30	2030-'40	2040-'50
Pittsburgh Area	(0.7%)	(0.2%)	(0.3%)	(0.1%)	(0.1%)	(0.2%)	(0.3%)
Interurban Area	0.5%	0.7%	0.8%	0.3%	0.8%	0.6%	0.5%
Philadelphia Area	0.2%	0.4%	0.5%	0.3%	0.4%	0.2%	0.1%
Northeast Corridor	0.2%	0.2%	0.6%	0.1%	0.4%	0.3%	0.2%
Subtotal PA	0.0%	0.3%	0.4%	0.2%	0.4%	0.2%	0.1%
Maryland	1.3%	1.0%	0.9%	0.7%	0.9%	0.7%	0.6%
New Jersey	0.5%	0.8%	0.4%	0.4%	0.5%	0.4%	0.2%
New York	0.2%	0.5%	0.2%	0.4%	0.4%	0.2%	0.1%
Ohio	0.0%	0.5%	0.2%	0.1%	0.3%	0.2%	0.1%
Pennsylvania	0.0%	0.3%	0.3%	0.1%	0.4%	0.2%	0.1%
West Virginia	(0.8%)	0.1%	0.2%	(0.2%)	0.3%	0.2%	0.1%
Subtotal States	0.2%	0.5%	0.3%	0.3%	0.4%	0.3%	0.2%
United States	0.9%	1.2%	0.9%	0.8%	0.9%	0.8%	0.7%

Source: United States Census Bureau and Woods & Poole Economics, Inc. 2017

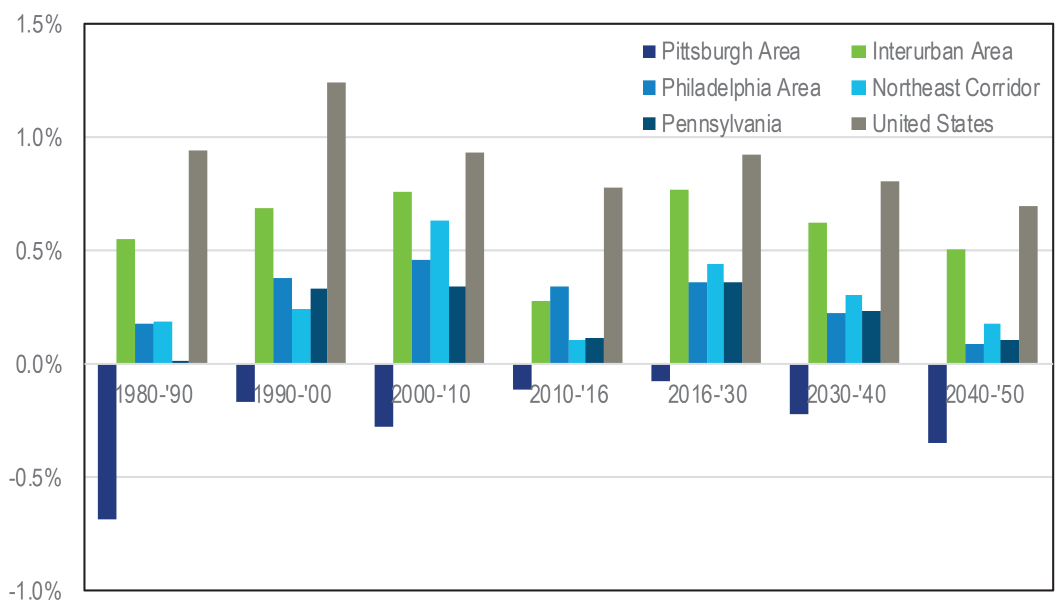


Figure 3-2
Population Trends and Forecasts

3.1.2 Employment and Unemployment Trends and Forecasts

The historical employment trends were extracted from data available from the United States Department of Commerce (Bureau of Economic Analysis from 1980 through 2016), while future growth rates are based on Woods & Poole data. Additional Bureau of Labor Statistics (BLS) unemployment data for the three major metro areas (which differs from the four Pennsylvania Turnpike socioeconomic groupings) is also compared/contrasted to state and national levels.

Employment - Historical employment growth generally decelerated from 1980 through 2010, with the pronounced reduction in average growth during the 2000-2010 decade, reflective of the recession that officially occurred from December 2007 through June 2009. Since 2010, employment growth has rebounded to longer-term historical averages, with Pennsylvania exhibiting 1.1% average growth since 2010. As with population, employment growth within Pennsylvania was historically slower than the nation (about half the rate). The Pittsburgh Area experienced the slowest relative historical employment growth, while the Interurban and Philadelphia Areas experienced the highest relative growth. Historical employment growth trends and forecasts for the study area are presented in Table 3-2 and Figure 3-3.

Although employment since 2010 (e.g., the recession) rebounded to longer-term historical growth patterns, the forecast is for decelerating growth. Average annual growth for Pennsylvania and the United States is forecast to grow at 1.0% and 1.3%, respectively, through 2030, then decelerate to 0.8% and 1.1%, respectively, between 2030 and 2040, then to 0.6% and 1.0% through 2050.

Table 3-2
Employment Trends and Forecasts

Geography	History				Forecast		
	1980-'90	1990-'00	2000-'10	2010-'16	2016-'30	2030-'40	2040-'50
Pittsburgh Area	0.4%	0.9%	0.1%	0.8%	0.7%	0.5%	0.4%
Interurban Area	1.8%	1.2%	0.4%	1.0%	1.2%	0.9%	0.7%
Philadelphia Area	1.3%	0.7%	0.4%	1.5%	1.0%	0.8%	0.7%
Northeast Corridor	1.1%	0.9%	0.5%	1.4%	1.1%	0.8%	0.7%
Subtotal PA	1.1%	0.9%	0.4%	1.2%	1.0%	0.8%	0.6%
Maryland	2.8%	1.2%	0.8%	1.5%	1.3%	1.1%	1.0%
New Jersey	1.8%	1.0%	0.4%	1.4%	1.1%	0.8%	0.7%
New York	1.2%	0.7%	0.6%	1.8%	1.0%	0.8%	0.7%
Ohio	1.2%	1.5%	(0.6%)	1.3%	0.9%	0.7%	0.6%
Pennsylvania	1.1%	0.9%	0.3%	1.1%	1.0%	0.8%	0.6%
West Virginia	(0.1%)	1.2%	0.3%	(0.1%)	0.9%	0.7%	0.6%
Subtotal States	1.4%	1.0%	0.3%	1.4%	1.0%	0.8%	0.7%
United States	2.0%	1.8%	0.5%	1.9%	1.3%	1.1%	1.0%

Source: United States Bureau of Economic Analysis and Woods & Poole Economics, Inc. 2017

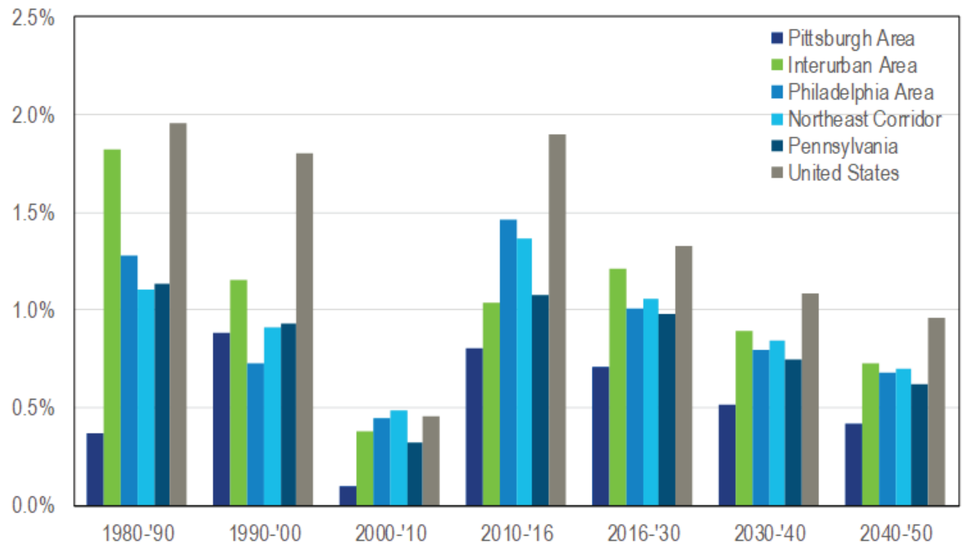


Figure 3-3
Employment Trends and Forecasts

Unemployment - Seasonally-unadjusted monthly unemployment rates prior to the last recession (January 2007 through November/December 2017) are presented in Figure 3-4 for the three major Metropolitan Statistical Areas (MSA) in Pennsylvania located along the Turnpike Mainline. These are the Philadelphia-Camden-Wilmington MSA, the Harrisburg-Carlisle MSA, and the Pittsburgh MSA. Additionally, unemployment data for the Commonwealth of Pennsylvania and the United States are also presented for comparison purposes. As the data are seasonally-unadjusted, the graph depicts both the seasonal cyclicality, and the longer-term trends.

Unemployment rates for the Commonwealth and MSAs generally parallel the nation, with a steep increase in 2008 and 2009, followed by a decade of steady decline to around 4.0%. Although the trends parallel, the Pennsylvania rates for most of the recent decade were below the United States. Harrisburg-Carlisle generally exhibited the lowest relative unemployment rates, reflective of the more stable government employment in the State Capitol (compared to more volatile private-sector employment). Philadelphia-Camden-Wilmington exhibited slightly higher unemployment rates than either Pittsburgh or Pennsylvania for most of the last decade. However, since the end of 2015, the unemployment rate in the Philadelphia MMSA has generally been slightly lower than Pennsylvania, whereas the unemployment rate in the Pittsburgh MSA has tracked slightly higher than the Commonwealth.

3.1.3 Real Retail Sales

Retail sales (in real, or constant dollar terms) trends and forecasts for the study area are presented in Table 3-3 and Figure 3-5. These data were extracted from data available from Woods & Poole. Nationally, growth in real retail sales grew 2.0% in the 1980s, accelerated to 3.4% in the 1990s, and was a tepid 0.6% in the decade from 2000 to 2010 (due to recession in 2008/09). Since the recession, annual growth nationally has rebounded to 2.8%. Pennsylvania trends in real retail sales paralleled the national historical trend, albeit at a relatively slower pace, with recent, post-recession annual growth of 2.3%. Within the Commonwealth, the Pittsburgh Area experienced the lowest post-recession relative growth (2.0%), while the Northeast Corridor experienced the highest (2.8%).

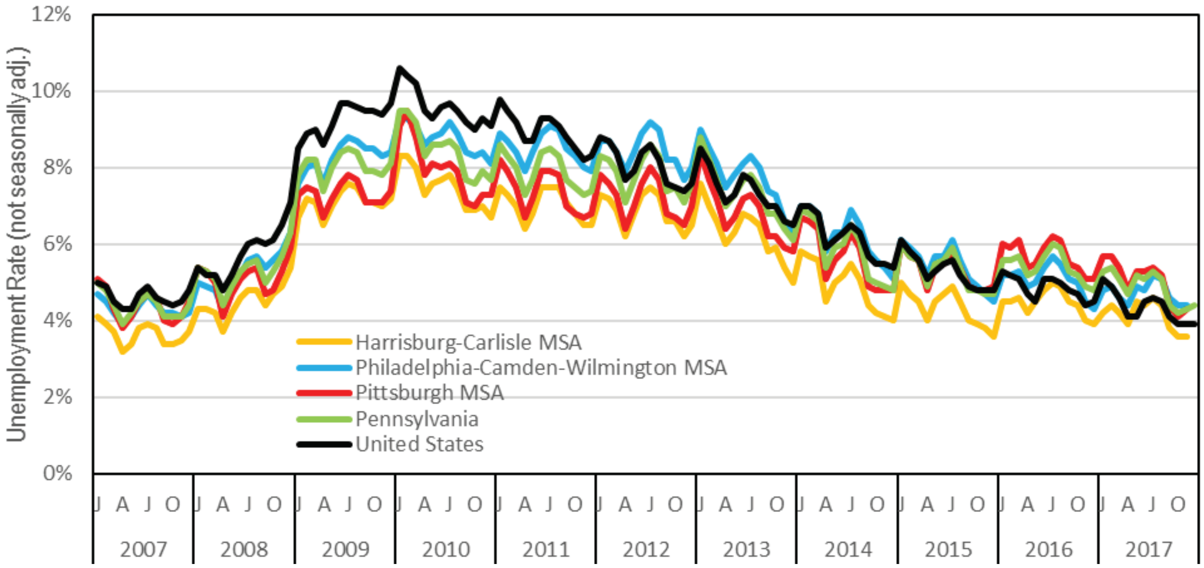


Figure 4-4
Trends in Unemployment Rates

Growth in real retail sales is forecast to decelerate from the recent rebounded growth since the recession. Nationally, Woods & Poole forecasts an average annual growth of about 1.5% through the end of the forecast period. Pennsylvania is forecast to grow at a slower relative pace, at 1.0% or lower. Within the Commonwealth, growth in retail sales within the Interurban Area are forecasted to be slightly higher than those of the other three clustered areas surrounding the Turnpike; and of these three, the Pittsburgh Area is forecast to grow at the slowest relative average rate.

Table 3-3
Real Retail Sales Trends and Forecasts

Geography	History				Forecast		
	1980-'90	1990-'00	2000-'10	2010-'16	2016-'30	2030-'40	2040-'50
Pittsburgh Area	0.3%	2.4%	0.1%	2.0%	0.5%	0.3%	0.4%
Interurban Area	2.2%	2.7%	(0.0%)	2.4%	1.3%	1.2%	1.3%
Philadelphia Area	2.1%	2.6%	0.3%	2.1%	1.1%	0.9%	1.0%
Northeast Corridor	1.6%	2.5%	1.7%	2.8%	0.9%	0.8%	0.9%
Subtotal PA	1.6%	2.5%	0.4%	2.2%	1.0%	0.8%	0.9%
Maryland	2.5%	2.7%	0.2%	2.4%	1.5%	1.3%	1.4%
New Jersey	2.2%	2.7%	0.2%	2.4%	1.1%	0.9%	1.0%
New York	1.5%	2.4%	0.9%	2.6%	1.0%	0.8%	0.9%
Ohio	1.2%	3.0%	(0.6%)	2.5%	0.9%	0.8%	0.9%
Pennsylvania	1.6%	2.5%	0.3%	2.3%	1.0%	0.8%	0.9%
West Virginia	(0.2%)	2.9%	0.2%	2.2%	0.9%	0.8%	0.9%
Subtotal States	1.6%	2.6%	0.3%	2.4%	1.0%	0.9%	1.0%
United States	2.0%	3.4%	0.6%	2.8%	1.5%	1.4%	1.5%

Source: Woods & Poole Economics, Inc. 2017

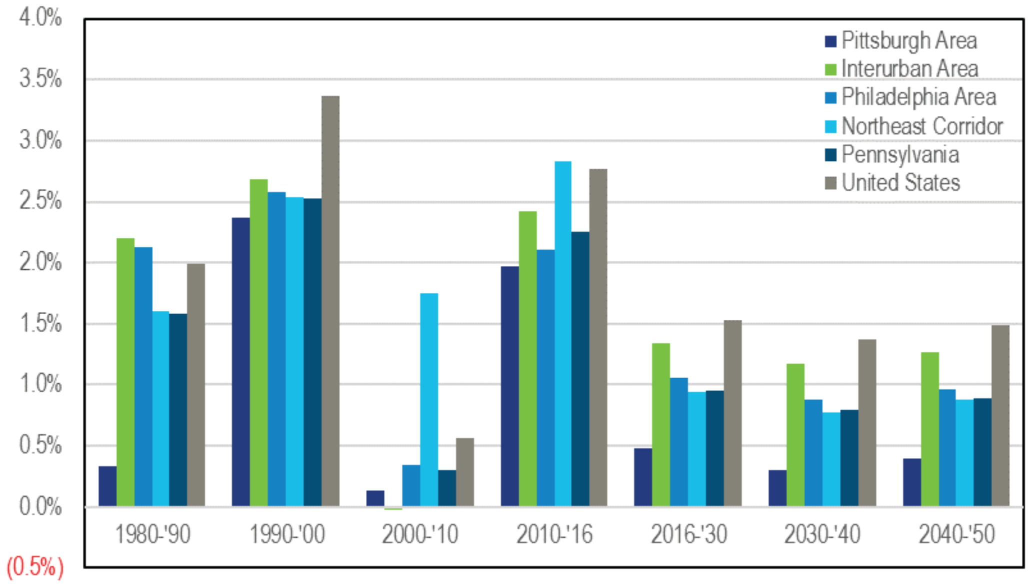


Figure 5-5
Real Retail Sales Trends and Forecasts

3.1.4 Real Gross Regional Product (GRP)

Real gross regional product (or gross state product/gross domestic product, depending on the geographic focus) is the inflation-adjusted standard metric for total economic activity in an area. Real GRP trends and forecasts for the study area are presented in Table 3-4 and Figure 3-6 and are sourced to Woods & Poole, based on data from the Bureau of Economic Analysis.

National real gross domestic product (GDP) decelerated from an annual average of 3.6% in the 1990s to less than half that (1.7%) in the decade from 2000 to 2010 (reflective of the recession). Since the recession, national real GDP increased 2.5% annually. Pennsylvania's real gross state product (GSP) growth pattern was similar, with 2.7% in the 1990's, decelerating to 1.8% from 2000 to 2010 and increasing slightly to 2.0% per annum from 2010 to 2016. Within the Commonwealth, the two major MSAs (Pittsburgh and Philadelphia) historically exhibited the highest relative growth rates in real GRP.

Real GRP growth forecasts are for 2.1% per annum for the United States through 2030 and 1.8% for Pennsylvania. As with the growth forecasts for other socioeconomic variables, a general deceleration in growth is forecast for GRP. In the corridor counties, like the entire Commonwealth, real GRP growth is projected to average 1.8% through 2030, with a general deceleration thereafter. And, within the Pennsylvania Turnpike corridor, the Pittsburgh and Philadelphia Areas are forecast to have the slowest relative growth.

Table 3-4
Real Gross Regional Product Trends and Forecasts

Geography	History				Forecast		
	1980-'90	1990-'00	2000-'10	2010-'16	2016-'30	2030-'40	2040-'50
Pittsburgh Area	0.9%	2.8%	1.7%	2.4%	1.5%	1.4%	1.3%
Interurban Area	2.8%	2.6%	1.5%	1.8%	2.0%	1.7%	1.5%
Philadelphia Area	3.2%	2.8%	2.0%	1.9%	1.8%	1.7%	1.7%
Northeast Corridor	2.1%	2.7%	1.6%	1.5%	1.7%	1.5%	1.3%
Subtotal PA	2.4%	2.7%	1.8%	2.0%	1.8%	1.6%	1.5%
Maryland	4.5%	2.9%	2.9%	1.6%	2.0%	1.8%	1.7%
New Jersey	4.7%	2.7%	1.0%	1.4%	1.7%	1.5%	1.4%
New York	3.2%	2.5%	1.7%	1.8%	1.9%	1.7%	1.6%
Ohio	2.0%	3.2%	0.3%	2.8%	1.8%	1.6%	1.4%
Pennsylvania	2.3%	2.7%	1.8%	2.0%	1.8%	1.6%	1.5%
West Virginia	(0.2%)	2.2%	2.6%	0.8%	1.1%	1.0%	0.8%
Subtotal States	3.0%	2.7%	1.5%	1.9%	1.8%	1.6%	1.5%
United States	3.1%	3.6%	1.7%	2.5%	2.1%	1.8%	1.7%

Source: Woods & Poole Economics, Inc. 2017

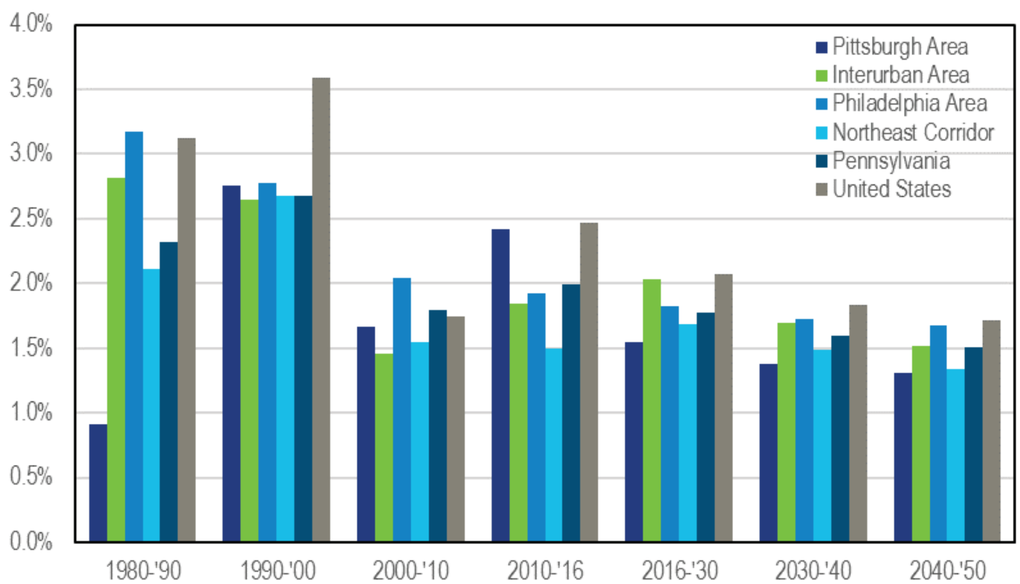
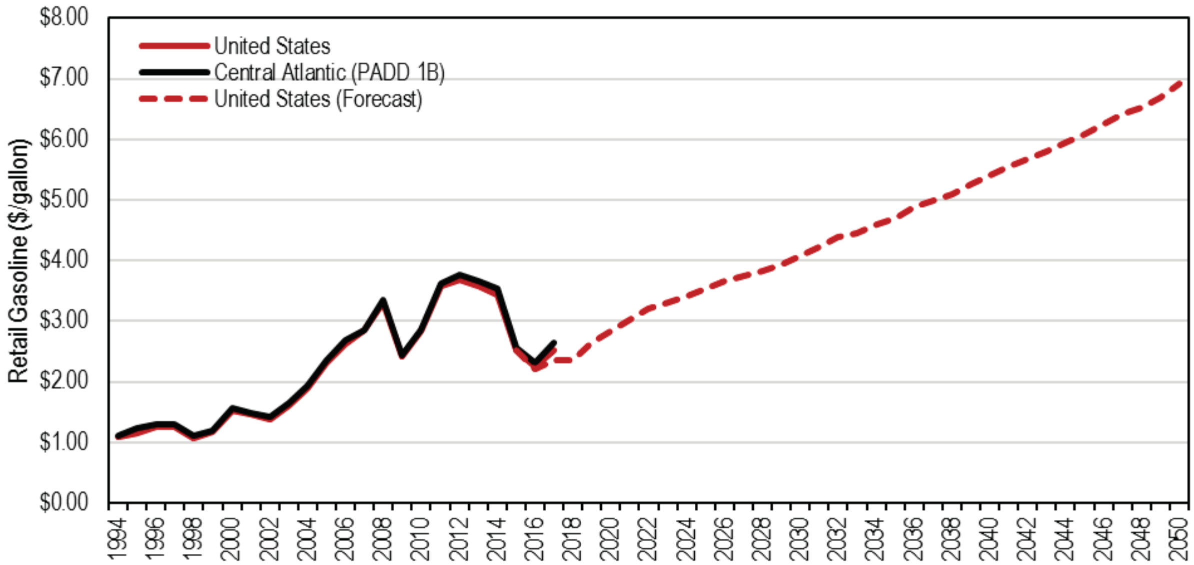


Figure 6-6
Real Gross Regional Product Trends and Forecasts

3.1.5 Motor Fuel Prices

Historical gasoline prices (in current dollars/gallon for all grades, all formulations) for the Central-Atlantic region (NY, NJ, PA, DE, and D.C.) and the United States are presented in Figure 3-7. The data was obtained from the U.S. Energy Information Administration (EIA). Average annual gasoline prices for the United States and the Central-Atlantic region were nearly identical historically, with the Central Atlantic region between $0.01 and $0.11 per gallon above the national price. Prices peaked at close to $3.70 per gallon in 2012[2], and declined through 2016. Prices in 2017 increased by more than $.025/gallon over 2016, and that upward trend is forecast to continue through 2050. According to the EIA Annual Energy Outlook 2017, future average national gasoline prices are forecasted to steadily increase to $7.00/gallon by 2050 in current dollars.



Source: Energy Information Administration

Figure 7-7
Gasoline Prices

3.2 MPO Outreach and Regional Economic Conditions

To supplement the socioeconomic data analysis, additional qualitative inputs were collected for the geographic areas represented by four of the five major metropolitan planning organizations (MPO) within, or near, the Pennsylvania Turnpike corridors. The inputs were collected via discussions with representatives from the MPOs. As shown in Figure 3-8, the geographic areas covered by these five MPOs partially overlap with the four Pennsylvania Turnpike areas analyzed in the previous subsection. While characteristics reviewed and discussed varied by MPO, they generally include: housing and residential, employment and industry, and freight and shipping. The five MPOs include:

- Southwestern Pennsylvania Commission (SPC)
- Delaware Valley Regional Planning Commission (DVRPC)
- Tri-County Regional Planning Commission (TCRPC)
- Lackawanna-Luzerne Metropolitan Planning Organization (LLMPO)
- Lehigh Valley Planning Commission (LVPC)

[2] Please note that in sub-annual terms, gas prices reached their high for the last two decades of around $4.15 per gallon in July of 2008 (not shown in the Figure).

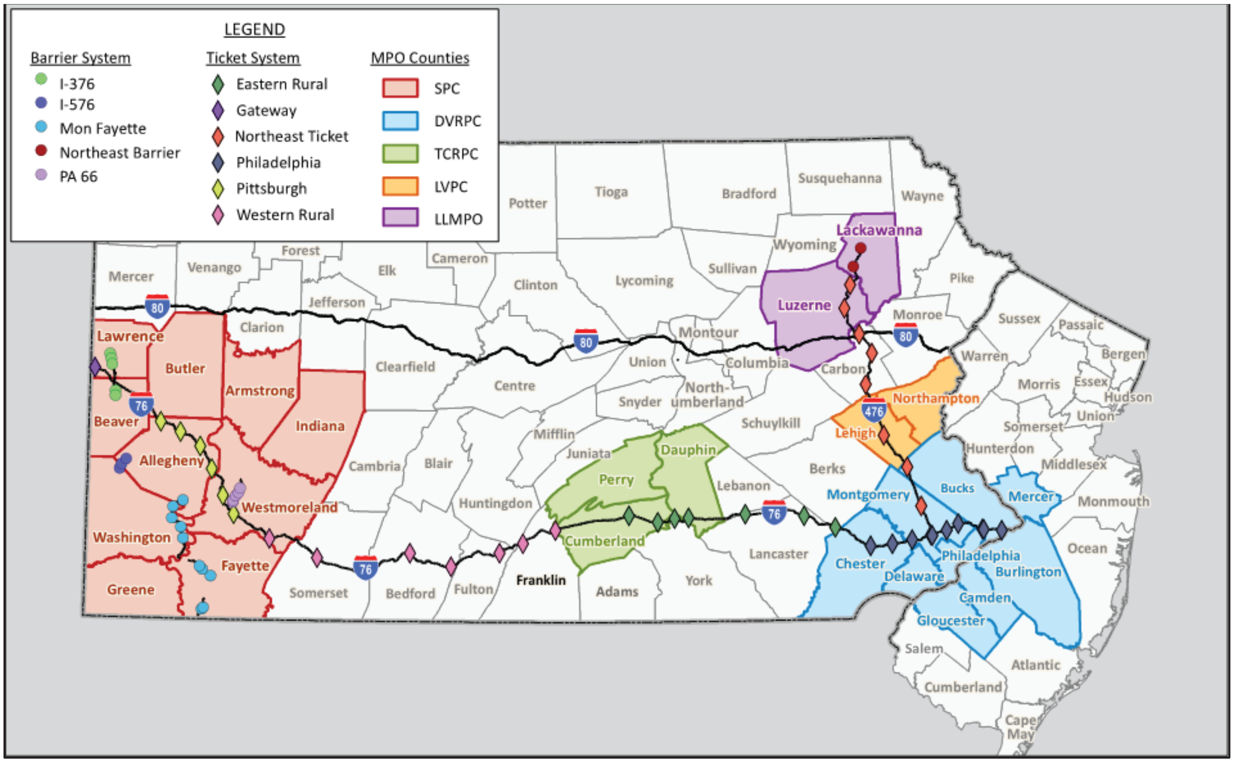


Figure 8-8
Pennsylvania MPOs

3.2.1 Southwestern Pennsylvania Commission

The Southwestern Pennsylvania Commission includes the eight Pittsburgh area counties as well as the two counties bordering West Virginia (Fayette and Greene).

Housing and Residential – Residential development continues to be led by Cranberry Township in Butler County, north of downtown Pittsburg. West of Pittsburg, residential (and commercial) development continues in Westmorland County (east of Monroeville) as the Southern Beltway (Route 576) nears completion. Southwest of Pittsburg, the residential development is growing to support the Southpoint commercial development (Washington County). Downtown Pittsburg also continues to develop as several properties shift from commercial to residential use. Such downtown residential properties accommodate smaller household size than the suburbs.

Employment and Industry – The Southpoint suburban business park in in Cecil Township, 17 miles south of Pittsburg, accommodates over 300 businesses. Marcellus Shale oriented energy firms include and Noble Energy, Rice Energy, Range Resources, CONSOL Energy, DPS Property, Chesapeake Energy, Columbia Gas. Other high technology (telecom/engineering specialty service) firms include: Southpointe Telecom, Ansys, Crown Castle, Mylan Labs, etc. While coal output and employment continue to decline, gas related activity associated with fracking continues to produce high volumes despite area wells being generally built-out.

Freight and Shipping – Local distribution facilities, including Amazon, continue to expand throughout the area. In fact, the Pittsburg area made the narrowed list of 20-cities seeking to attract the new Amazon headquarters, which would significantly affect growth trends.

3.2.2 Delaware Valley Regional Planning Commission

The Delaware Valley Regional Planning Commission includes five of the six Philadelphia area Pennsylvania Turnpike counties (excludes Berks), and four neighboring New Jersey counties (Burlington, Camden, Gloucester, and Mercer).

<u>Housing and Residential</u> – Both the urban core (Philadelphia) and the suburbs are growing. Recent residential increase in central Philadelphia and adjacent zip codes reflect millennials demand for urban rental and multi-family housing. Similarly, suburban counties, townships and boroughs are also booming. These especially include: Conshohocken Borough (*Montgomery County*), Upper Makefield Township (*Bucks County*), Spring City (*Chester County*), and *Washington Township* (Mercer County) NJ. While housing prices are increasing, potential solutions include regional transit improvements and inclusionary zoning policies. Further, private developers are increasingly pressured to provide more incentives beyond low-income housing tax credits[i].

<u>Employment and Industry</u> – Regionally, the largest industry sectors include services, retail, manufacturing, FIRE[3], and freight transport. Growth continues in both the Philadelphia core and the suburban area. In Philadelphia, employment is led by education, healthcare, and technology – with Comcast operations growing the fastest. Additionally, the Philadelphia International Airport (PHL) and the American Airlines hub-operations are major employers. Downtown, University of Pennsylvania (UPENN) and Drexel University enroll over 50,000 students and employ thousands of staff.

Amtrak and SEPTA rail lines converge at the 30th street station, close to UPENN, where development continues, including possibly an Amazon facility. However, many physical constraints, (e.g., many at-grade rail lines) require large-scale development/planning. Such development would significantly affect the City and region. Also, Naval Yard redevelopment (South Philly) of 1,200 acres is expected to average about 1,000 new jobs per year for the next 15-20 years, which will affect the I-95 corridor but is not close to the Pennsylvania Turnpike.

While downtown office development is static, the market is growing in the suburbs, such as a new office park in Blue Bell. An old golf course in the King of Prussia Mall area is also being redeveloped as a casino with mixed-use conversion (housing/commercial). And, an 800-acre redevelopment in Willow Grove (Montgomery County) is anticipated to attract 30,000 jobs and several thousand residents, depending on proposal adopted.

<u>Freight and Shipping</u> – With a major international port and commercial service airport along the eastern seaboard, the region accommodates a large volume of directional freight (inbound, outbound, internal, and through) by all four modes (truck, rail, port, and air). At the Port of Philadelphia, larger cranes and harbor deepening (45') facilitate larger Panamax vessels, increased containerization, and recent automobile imports (Hyundai/Kia). At PHL, air cargo operations continue to expand (Cargo City and UPS), despite new runway expansion delays (10+ years). In neighboring New Jersey, freight center growth continues along the New Jersey Turnpike (NJTP) interchange 8A. Similarly, freight center growth in Leigh Valley also affects traffic volumes in the northern DVRPC.

<u>Growth Summary</u> – City-Center redevelopment will generate minor effects on future traffic due to mixed city-center trends and transport improvements. Current employment levels of around 300,000

[3] Financial, insurance, and real estate services

continues to fall, as the 60,000-population level continues to rise as offices and big-box stores convert to housing. Envisioned urban-core transport improvements (both Turnpike and transit) will help accommodate Philadelphia population growth and employment trends.

Suburban growth appears stronger as employment continues to branch-out from the core. Specific development is anticipated along the Turnpike's I-76 corridor. Suburban growth will also increase suburb-to-suburb commuting with heavy reliance on limited access roadway facilities such as I-76 and the Northeast Extension. High growth suburban counties include Bucks (north of core) and Chester (west). Montgomery (northwest), which grew rapidly over the past twenty years, has little vacant land available, and is turning to mixed-use and redevelopment.

3.2.3 Tri-County Regional Planning Commission

Within the sixteen-county Interurban Turnpike area, the Tri-County Regional Planning Commission comprises the three central counties of Cumberland, Dauphin, and Perry. While each reflects distinct socioeconomic conditions, the region continues transitioning to a post-manufacturing economy.

Housing and Residential – Anchored by Harrisburg, the state capitol, is the densest and most populous of the three counties. However, its population decline between 1970 and 2000 reflected a relocation to the suburbs of Cumberland County. Comparatively, Perry County remains very rural with low population levels and growth rates.

Employment and Industry – Regional iron and steel manufacturing centered in Harrisburg (Dauphin County) has been replaced by the Penn State Hershey Medical Center, the Giant Food Stores corporate headquarters, and the Hershey Company Resort and Factory. Recent Harrisburg development has been constrained by fiscal financial issues and the reality that half of assessed city property is exempt from current taxes (capitol and other state-owned facilities). Such development constraints spurred a 10-year tax abatement redevelopment incentive package, an updated future land use plan, zoning code changes, and other measures. Resultant development prospects include talk of new large-scale office and residential projects.

In Cumberland County, the Department of Defense is the major employer, which supports the New Cumberland Army Depot and the Naval Support Activity in Mechanicsburg – largest inland supply depot in the U.S. Comparatively, Perry County has an agriculture-based economy, which exhibits slow to moderate growth as the retail/commercial sector expands slowly.

Freight and Shipping – A UPS regional hub in suburban Harrisburg lies just north of the Harrisburg International Airport (MDT), which is undergoing an air cargo apron expansion. A FedEx shipment center is also located in Middletown (north of I-76). Also, a major rail intermodal facility (3rd largest east of Mississippi River) located in Dauphin County accommodates a diverse commodity mix and has major roadway connections.

Other – Local toll rates are considered very high by local commuters, which has led to toll road avoidance commute patterns. I-83 reconstruction over the next decade will stress such commutes and the overall Harrisburg highway system. This illustrates potential externality effects in historical toll transactions, as well as in future transaction growth.

3.2.4 Lackawanna-Luzerne Metropolitan Planning Organization

The MPO lies within the Northeast Pennsylvania Turnpike analysis area and comprises the two northern counties of Lackawanna and Luzerne.

Housing and Residential – With the oldest housing stock in the nation, reuse has been limited to the urban cores of Scranton and Wilkes-Barre (W/B). Urban land redevelopment initiatives (Keystone Opportunity Zone, State Land Bank), continue to help remove troubled properties and stem the cycle of vacancy/abandonment/foreclosure. However, such initiatives struggle to successfully stimulate property demand. Nonetheless, population remains stable with residential in-migration into downtown Scranton induced by the Medical College enrollment and reverse suburbanization trends of older residents seeking more-urbanized access to retail, entertainment, medical, etc.

Suburban population is also increasing slightly, although undercounted due to the Latino immigrants and a significant Bhutanese community. Anecdotal observations by local community leaders of suburban housing, retail, school enrolment, etc. suggest that the immigrant enclaves are expected to continue expanding.

Employment and Industry – Both counties continue to transition to a post-manufacturing, post-coal economy. Additionally, Scranton financial issues constraining development include pension payments, struggling school district budgets, and disproportionate local service taxes on low-income workers. Nonetheless, freight distribution and shipping (see below), the Casino, and other development facilitate modest economic growth in the region.

Located between Scranton and W/B, the Mohegan Sun Pocono Casino continues to expand (new 8-story hotel) with much land held for future development (e.g., golf course, water park, etc.). With continued traffic volume increases, the Casino seeks a new I-81 interchange. Noteworthy, concerns about a negative Casino impact downtown business has not arisen.

The Humboldt Industrial Park, south of W/B in Hazel Township along I-81, continues to develop, and currently employees around 10,000. North of the I-476 Turnpike terminus, Clark Summit continues to evolve as parcel land use turns commercial (banks, restaurants, pharmacies, etc.), which addresses previously underserved local service needs.

Freight and Shipping – A very strong and growing sector of the regional economy. Several regional distribution-centers and box-warehouses lie in the valley between Scranton and W/B along the Turnpike (I-476) and I-81. These centers/warehouses serve the whole northeast U.S. Over two dozen facilities range in size from 0.3 million to over 1.2 million sq. ft. Major distributors include Chewy, Adidas, Patagonia, Lowes, etc. Continued successful growth of the facilities have also led to expanded back-office support operations. Such growth led to planned expansion of Highway 6, north of the I-81/I-84 interchange. Further, the Wilkes-Barre/Scranton Int'l Airport (AVP) continues to support the regional freight and shipping sector. The recent airport master plan focuses on developing vacant parcels for air-based warehousing/manufacturing (0.5 million sq. ft. mixed-use) and distribution.

3.2.5 Lehigh Valley Planning Commission

The Lehigh Valley Planning Commission lies within the Northeast Turnpike analysis area and comprises the two southern counties of Lehigh and Northampton. We reached out to the MPO several times but were unable to engage. Located between the DVRPC and LLMPO, regional characteristics reflect a cross between the small urban LLMPO and the suburban fringe of the DVRPC, which confirms the historical socioeconomic trends and growth forecast findings.

3.2.6 Conclusion

The qualitative MPO outreach discussions of local economic conditions confirmed the quantitative analysis of socioeconomic trends that went into the subsequent econometric growth analysis. The due-diligence outreach found nothing that would alter the quantitative forecasting process. Rather, the outreach corroborated and substantiated the socioeconomic trends with local depictions of where residential and/or business growth was (or was not) occurring and why.

3.3 Economic Growth Analysis

An econometric analysis was conducted to estimate long-term baseline travel demand on the Pennsylvania Turnpike. Historical travel demand was econometrically estimated via regression equations for groups of toll plazas, the rationale for which will be explained in Section 3.3.1.2. Regional socioeconomics and other variables were tested as explanatory factors. With statistically-significant historical equations, independent variable forecasts were applied to the equation coefficients to estimate future travel demand. Twenty demand equations were tested for either individual plazas or groups of proximate plazas, for both passenger cars (PC) and commercial vehicles (CV). A majority of the twenty plaza-vehicle grouping equations yielded statistically-significant, defensibly-logical results. Forecasts were conducted through 2050.

Subsequent toll modeling analyses conditionally incorporates these econometrically-derived baseline travel demand forecasts, which consider a range of future toll policies and rate structures in estimating future revenue potential.

3.3.1 Econometric Modeling

CDM Smith developed an econometric model for the PA Turnpike System, using multivariate regression analysis to develop long-term toll-transaction growth forecasts. In the econometric modeling, the objective is to identify an independent variable (or variables) with historical trends that can explain, by way of statistical significance, corresponding traffic trends on the Turnpike. A resulting correlative relationship between historical trends in corridor traffic and one or more independent variables is, in turn, applied in forecasting future Turnpike transaction growth, given available and credible forecasts for the independent variable(s). CDM Smith regression-tested annual transaction data for 10 plaza groupings, described in Section 3.3.1.2, against geographically-weighted independent socioeconomic data, (for passenger cars and commercial vehicles) to derive long-term transaction forecasts.

3.3.1.1 Regression Testing

Highway travel occurs for myriad reasons, such as recreation, commuting, trade, etc., and is influenced by factors such as fuel prices, other travel costs, weather, trip urgency, and economics. Aggregate highway travel, however, typically trends closely with regional socioeconomic variables. As such, conceptually-relevant socioeconomic data were hypothesized, compiled, and regression-tested for explaining annual travel demand. These data include population, employment, real gross regional product, and real retail sales, compiled at various geographic levels. In addition to regional socioeconomic variables, average fuel prices and an indexed toll variable were tested as explanatory factors for historical travel.

Multiple regression equations were tested and evaluated for each toll plaza-vehicle grouping to account for the numerous possible combinations of relevant geographies (county clusters) for each possible socioeconomic variable, and combinations with either/both fuel and toll index factors. A single "best fit" equation was identified for each toll-plaza grouping and used in the developing transactions forecasts.

3.3.1.2 Toll Plaza Groupings (Dependent Variables)

Toll plazas were clustered into the ten groupings (from 69 individual plazas) to reduce regression testing to a reasonably manageable data universe, based-on geographic proximity, similarities in historical travel demand patterns, data availability, and other characteristics such as operating history. These toll plaza groupings are identified in Table 3-5 and shown graphically in Figure 3-9. Some individual toll plazas were excluded from the groupings due to data gaps (e.g., I-376 and PA 66), staggered plaza openings/closings (e.g., Mon Fayette), or too short annual data (e.g., I-576), as inclusion would artificially distort the historical demand trends. Of the 69 individual toll plazas, 39 were included in the groupings. The 30 toll plazas excluded from the ten groups mostly pertain to the barrier-system facilities.

Note that the Delaware River Bridge (DRB) and the Southern Beltway (I-576) were not econometrically tested similarly to other groupings. The DRB changed operations recently, therefore, the historical trend may not appropriately correspond with current and future conditions. The I-576 opened in 2006, and the relatively short historical data includes a ramp-up trend that does not statistically correspond to any regional socioeconomic characteristics.

Where available, historical traffic data were used as continuous annual time series from 1987 through 2016. Annualized data were available for most of the ticket-system facilities, exempting a few toll plazas that opened after 1987 (and thus excluded). However, the barrier-system data were more limited; available only since 1994 with data gaps, or toll plazas that were opened too recently to provide a statistically defensible trend (insufficient number of data points). Many of the 30 excluded toll plazas from the groupings are barrier toll plazas with shorter historical operating timeframes than 1994 to 2016.

Table 3-5
Toll Plaza Groupings

	Plaza Grouping	Type	Included	Excluded
1	Gateway	Ticket	1	0
2	Pittsburgh	Ticket	5	1
3	Western Rural	Ticket	7	0
4	Eastern Rural	Ticket	7	0
5	Philadelphia	Ticket	6	5
6	Northeast Ticket	Ticket	7	2
7	Northeast Barrier	Barrier	2	0
8	I-376	Barrier	2	3
9	PA 66	Barrier	1	4
10	Mon Fayette	Barrier	1	11

Source: CDM Smith

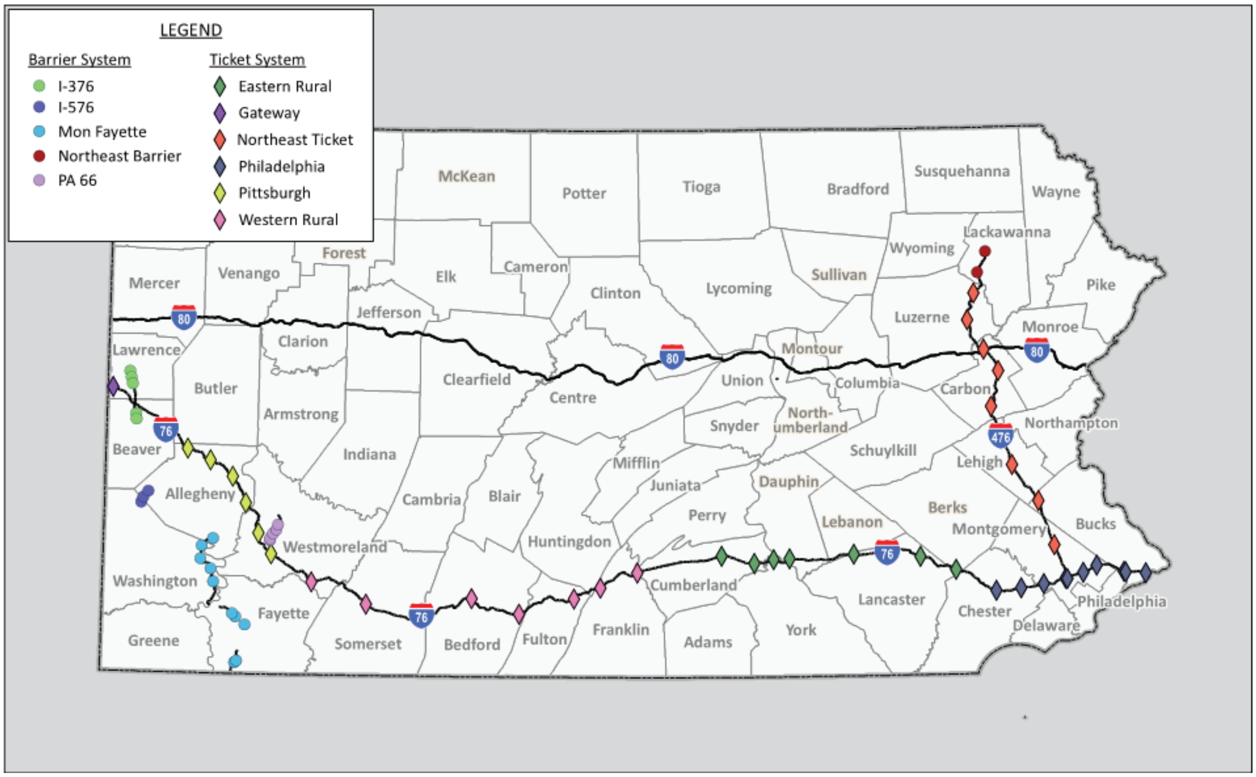


Figure 9-9
Toll Plaza Groupings

3.3.1.3 Socioeconomic Data (Independent Variables)

Data inputs include historical and forecasts data for the possible explanatory independent variables, which include socioeconomics for geographies surrounding the Turnpike (i.e., Pennsylvania and surrounding states' counties). Data compiled for regression testing included:

- Pennsylvania Turnpike Commission – historical transactions and toll rate schedule
- United States Census Bureau – historical population
- United States Bureau of Economic Analysis (BEA) – historical employment
- United States Energy Information Administration (EIA) – historical and forecast fuel prices
- Woods & Poole Economics, Inc. – historical and forecast population, employment, real gross regional product (GRP), and real retail sales
- Moody's Analytics – historical and forecast real gross regional product (GRP)

Socioeconomic data was tested as an explanatory variable at various combinations of counties surrounding the toll plazas groupings. Data was compiled for all counties in Pennsylvania, New York, New Jersey, Delaware, Maryland, Virginia, West Virginia, and Ohio.

3.3.1.4 Regression Caveats

Econometrically-derived long-term demand forecasts served as basis for further transaction and toll revenues estimates. Growth forecasts from the regressions do not explicitly consider route choice assumptions, the existing roadway network and planned improvements, existing and anticipated roadway capacities, origin-destination pairing, peak and directional factors, or traffic diversions. As such, the regression-based forecast growth rates are conditionally incorporated into further traffic and revenue modeling.

As this regression analysis attempted to estimate aggregate travel demand, the equations cannot account for all potentially influencing factors, especially any small-scale, qualitative/difficult-to-quantify, and/or irregularly occurring factors. Also, a regression analysis is incapable of forecasting unprecedented factors (positive or negative influence) such as catastrophic climate change, health epidemics, terrorism, natural disasters, or any other significantly destabilizing factors.

Forecasts are estimates, limited by the availability and robustness of input data, both historical and projected. Data unavailability, discrepancies, aberrations, and inaccuracies can hinder the robustness and results of econometric forecasting.

3.3.1.5 Regression Equations and Forecasting

A final regression equation was estimated for each toll plaza/vehicle grouping, relating historical annual travel demand with a regional socioeconomic variable, and sometimes with a toll index and/or fuel prices as additional explanatory factors. A regression summary for the ten-toll plaza/vehicle groupings is provided in Table 3-6. After testing the compiled socioeconomics at various regional county clusters, it was determined that real GRP was the best-suited explanatory variable for most equations, and population for a couple of equations.

Geographically, regional combinations of contiguous counties in Pennsylvania, New Jersey, Delaware, Maryland, West Virginia, and Ohio served as logical and statistically-acceptable catchment areas. Although each equation has a unique county combination, anchored around the respective plaza groupings, the counties included in each equation are along and adjacent to the Pennsylvania Turnpike system. Catchment areas regionalize socioeconomic variables as related to travel demand; however, the catchment areas should not imply that travel demand is only from those geographies, but rather that the catchment is a logical, statistically-valid representation for the aggregate demand.

Most of the twenty equations exhibited sensible relationships with acceptable statistics; however, despite concerted due-diligence, a few equations could not be improved upon while yielding poor statistics or questionable relationships. In such instances, the historical travel demand patterns did not trend well with any regional socioeconomics and/or the toll rate factors, and are instead probably more influenced by localized, sub-county factors such as toll plaza operating characteristics, diversion potentials, construction closures, etc. Such historical transaction volatility disjointed from regional socioeconomic trends was encountered for single toll plaza equations (i.e., Gateway CV) and the smaller barrier-system facilities (i.e., Northeast Barrier PC and CV, and I-376 PC). Contrastingly, the ticket-system groupings with multiple major toll plazas that contribute to a significant majority of the total Pennsylvania Turnpike transactions and revenues (I-76 and the Northeast Extension/I-476) exhibited statistically-significant equations and coefficients, with consistent relationships across adjacent groupings and logical results.

Table 3-6
Regression Summary

Grouping/Vehicles	Start Yr.	Adj. R2	Independent Variables			PA	Non-PA	Counties
Gateway PV	1987	91.90%	GDP			4	4	8
Pittsburgh PV	1987	95.10%	GDP	Toll Index		13	10	23
Western Rural PV	1987	92.10%	GDP	Toll Index		12	7	19
Eastern Rural PV	1987	97.80%	GDP	Toll Index		12	9	21
Philadelphia PV	1987	93.10%	GDP	Toll Index		13	12	25
Northeast Ticket PV	1987	99.10%	Population	Toll Index	Fuel Price	10	5	15
Northeast Barrier PV	1994	44.70%	Population			7	0	7
I-376 PV	1994	85.40%	GDP	Toll Index		2	0	2
PA 66 PV	1994	92.10%	GDP	Toll Index		2	0	2
Mon Fayette PV	1994	95.40%	GDP	Toll Index		2	3	5
Gateway CV	1987	68.40%	GDP	Toll Index		1	4	5
Pittsburgh CV	1987	95.20%	GDP	Toll Index		18	15	33
Western Rural CV	1987	94.70%	GDP	Toll Index		15	12	27
Eastern Rural CV	1987	97.80%	GDP	Toll Index		14	13	27
Philadelphia CV	1987	91.70%	GDP	Toll Index		5	7	12
Northeast Ticket CV	1987	99.60%	GDP			14	2	16
Northeast Barrier CV	1994	77.30%	GDP			3	0	3
I-376 CV	1994	96.00%	GDP			5	0	5
PA 66 CV	1994	95.70%	GDP	Toll Index		2	0	2
Mon Fayette CV	1994	92.40%	GDP			3	2	5

Source: CDM Smith

Aside from the four abovementioned equations at single- and small barrier-system toll plaza groupings with poor statistical fits, the remaining equations that correspond to a significant majority of Pennsylvania Turnpike toll transactions and revenues exhibit robust adjusted R^2 statistics, ranging between 91.6% and 99.6%. Such relatively high statistical fits indicate good relationships.

With the final equations, socioeconomic, toll index, and fuel price forecasts were applied to the regression coefficients, as appropriate, to estimate future long-term travel demand. Socioeconomic forecasts were obtained from both Woods & Poole Economics, Inc. at a detailed county level and Moody's Analytics at a more macroscopic statewide and metropolitan statistical area (MSA) level. Both sources forecast almost identical long-term annual real GRP trends for comparable statewide and MSA geographies, with very minor average growth rate differentials through 2035 and slight divergence thereafter. Given the availability of Woods & Poole forecasts at a granular county level, it was applied to equations to forecast baseline travel demand. Fuel price forecasts were applied to the Northeast passenger car equation, sourced from the EIA; and, the toll index forecast assumes a 6% annually-recurring increase through 2020, 5% thereafter through 2025, and a deceleration to 3% in 2028 and thereafter.

In further traffic and revenue modeling, it was decided that forecast growth estimates from the four sub-par equations fits not be applied. Instead, it was decided that alternative growth forecasts from a simpler, non-econometric based extrapolation of most recent historical trends be employed. A similar recommendation to consider simpler, alternative forecasts for the remaining barrier-system forecasts was also made because of the more localized characteristics of such facilities. Given the acceptable logic and statistical significance of the ticket-system equations, it was recommended that the econometric-based growth forecasts be applied in further traffic and revenue modeling for those major facilities.

3.3.2 Demand Growth Results

Econometrically-derived travel demand forecasts for the Pennsylvania Turnpike are summarized in Table 3-7 below, based on applied forecasts for the regional socioeconomics, toll index, and fuel prices to the respective regression coefficients. Compound average growth rates (CAGR) for the plaza groupings are shown for three historical timeframes as comparative context, and generally in ten-year future increments through year 2050. The last column in Table 3-7 presents the average growth over the entire 2016 through 2050 forecast period.

Table 3-7
Transaction Growth Summary

Grouping/Vehicles	'87-'16	'94-'16	'07-'16	'16-'30	'30-'40	'40-'50	'16-'50
Gateway PV	1.7%	1.4%	1.7%	1.2%	1.0%	1.0%	1.1%
Pittsburgh PV	0.8%	0.7%	-0.3%	0.4%	0.6%	0.5%	0.5%
Western Rural PV	0.9%	0.8%	-0.6%	0.4%	0.6%	0.5%	0.5%
Eastern Rural PV	2.2%	1.9%	0.4%	1.7%	1.6%	1.5%	1.6%
Philadelphia PV	2.1%	1.4%	0.3%	0.9%	1.0%	0.8%	0.9%
Northeast Ticket PV	3.0%	2.0%	-0.3%	2.5%	2.2%	1.2%	2.0%
Northeast Barrier PV	#N/A	0.4%	-0.4%	0.8%	0.5%	0.2%	0.5%
I-376 PV	#N/A	1.7%	-1.4%	2.0%	1.4%	0.8%	1.5%
PA 66 PV	#N/A	3.0%	-1.1%	1.0%	0.8%	0.4%	0.8%
Mon Fayette PV	#N/A	3.1%	0.5%	0.5%	0.6%	0.3%	0.5%
Gateway CV	0.6%	0.7%	0.1%	0.5%	0.6%	0.5%	0.5%
Pittsburgh CV	1.4%	1.4%	-0.2%	0.9%	1.0%	0.9%	1.0%
Western Rural CV	1.4%	1.5%	-1.3%	0.6%	1.0%	0.9%	0.8%
Eastern Rural CV	2.6%	2.6%	0.5%	2.1%	2.0%	1.8%	2.0%
Philadelphia CV	1.8%	2.3%	0.7%	1.2%	1.3%	1.2%	1.2%
Northeast Ticket CV	4.1%	3.6%	1.3%	2.8%	2.3%	2.1%	2.5%
Northeast Barrier CV	#N/A	1.6%	2.1%	0.8%	0.8%	0.8%	0.8%
I-376 CV	#N/A	4.7%	1.8%	3.1%	2.1%	1.7%	2.4%
PA 66 CV	#N/A	4.5%	1.7%	1.3%	0.7%	0.2%	0.8%
Mon Fayette CV	#N/A	6.3%	9.6%	2.1%	1.7%	1.5%	1.8%

Source: CDM Smith

Average annual growth rates vary by toll plaza grouping, vehicle category, and period (hence, subcategorizing the facilities as conducted); consequently, it is challenging to concisely summarize. However, generally, passenger car growth was historically slower than commercial vehicle growth. Barrier-system facilities' transactions generally grew relatively faster than the older ticket-system facilities. Also, for the major ticket-system groupings, the western portions (Gateway, Pittsburgh, and Western Rural) grew slower than the eastern portions (Eastern Rural, Philadelphia, and the Northeast Extension). All three generalized relativities are expected to continue through the econometric-based growth forecasts. Additionally, the future growth in transactions is universally forecasted to decelerate relative to historical trends.

A refined traffic and revenue analysis is the last component of the forecasting analysis. Growth rates developed from this econometric regression analysis are conditionally applied to further traffic and revenue modeling. Some post-processing adjustments to the econometric forecasts (e.g., converging 2017 forecasts with actual observations, etc.) prior to further modeling are expected, which consider additional factors such as long-term roadway capacities, etc. Also, some of the econometrically-based forecasts for smaller, barrier-system facilities may be dismissed due to relatively weak descriptor statistics and supplanted with alternative growth assumptions via recent trend extrapolations or other non-econometric means.

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[i] Arvedlund, E. (2014, December 7). Conference to look at region's affordable housing. Retrieved from: http://articles.philly.com/2014-12-07/real_estate/56807054_1_affordable-housing-low-income-housing-tax-credits-affordability

Chapter 4

Transaction and Toll Revenue Forecasts

Traffic and gross toll revenue forecasts are presented in this chapter for the Ticket System, the Barrier System, and the total Turnpike System. Forecasts are presented by fiscal year from 2017-18 through 2047-48. Also presented in this chapter are important inputs to the forecasts, including committed roadway projects, assumed future toll rate increases and assumed future E-ZPass market shares.

4.1 Committed Turnpike System Roadway Improvements

Through discussions with PTC personnel and by reviewing both the PTC Construction website and the State Transportation Improvement Plan (STIP) and Twelve-Year Program (TYP), CDM Smith identified the major committed roadway improvements that would potentially impact traffic and toll revenue on the Turnpike System. Projects were identified on the Mainline I-76/276 and the Northeast Extension. **Table** 4-1 lists the identified projects and Figure 4-1 presents the locations of the projects. A brief description of each project is provided below.

Table 4-1
Major Committed Roadway Improvements on the Pennsylvania Turnpike Sytem [(1)]

Milepost	Location	Description	Actual or Assumed Start Date	Assumed Completion Date
Mainline I-76/I-276				
12-14	Beaver County	Reconstruct and widen to 3 lanes in each direction	September 2013	December 2020
28-31	Alleghany and Butler Counties	Reconstruct and widen to 3 lanes in each direction	2019	2021
40-48	Alleghany County	Replace 6 overhead bridges and widen to 6 lanes in each direction	February 2013	Fall 2019
124-134	Somerset and Bedford Counties	Reconstruct and widen to 3 lanes in each direction	To be determined	To be determined
149-155	Bedford County	Reconstruct and widen to 3 lanes in each direction	To be determined	To be determined
202-206	Cumberland County	Reconstruct and widen to 3 lanes in each direction	September 2016	December 2018
242-245	York County	Reconstruct and widen to 3 lanes in each direction	Spring 2015	Spring 2018
Mainline I-76/I-276 and I-95 Interchange				
356-360	I-95 to Delaware River Bridge (Bucks County)	•Widen I-276 to 3 lanes in each direction	Fall 2014	December 2017
		•Construct and open new ramps between I-95 and I-276	Fall 2015	September 2018
Northeast Extension I-476				
A31-A38	Montgomery County	Reconstruct and widen to 3 lanes in each direction	Early 2018	Late 2020
A89	Hawk Falls Bridge (Carbon County)	Completely replace two existing bridges	June 2012	June 2022
Southern Beltway Toll 576				
I-376 to U.S. 22	Washington and Allegheny Counties	Convert the existing Findlay Connector to a cashless tolling facility	2017	Spring 2018
US-22 to I-79	Washington and Allegheny Counties	Construct a 12.5-mile cashless tolling extension of Toll 576 from the southern terminus of the Findlay Connector at US-22 to I-79 including four new interchanges	December 2016	Summer 2021

(1) The roadway improvement projects shown in this table are a small subset of the projects listed in the PTC's Major Design and Construction Projects website and listed in the Proposed Twelve Year Program

PENNSYLVANIA TURNPIKE COMMISSION (PTC)
MAJOR ROADWAY IMPROVEMENT PROJECTS

FIGURE 4-1

4.1.1 Mainline I-76/I-276 Roadway Improvement Projects

Milepost (MP) 12 to 14 Roadway and Bridge Reconstruction – This two-phase project involves the total reconstruction and widening of two miles of the mainline Interstate 76 between Milepost 12 and Milepost 14. Upon completion of this project the existing four-lane facility, will be upgraded to include six 12-foot travel lanes, three in each direction, 12-foot shoulders and 10-foot medians in each direction. In order to accommodate the new six lane facility, three early action bridges including, two overhead Norfolk Southern railroad bridges will be replaced prior to the start of construction of the Turnpike mainline. Stage 1 of the project was completed in November 2017. Stage 2 is anticipated to be completed in December 2020.

MP 28 to MP 31 Reconstruction and Widening – This project involves the full-depth reconstruction and widening of the Pennsylvania Turnpike from four travel lanes to six travel lanes from Milepost 28 to Milepost 31 in Cranberry Township, Butler County and Marshall Township, Allegheny County. The project will begin on the east side of the Cranberry Interchange, tying into the eastbound acceleration lane and westbound deceleration lane. The project will end on the west side of the Warrendale Toll Plaza and result in two lanes of Express E-ZPass in each direction. Project design is scheduled to be completed in spring 2019, with construction lasting from summer 2019 to 2021.

MP 40 to MP 48 Reconstruction and Widening – Beginning in early 2013, the PTC started total roadway reconstruction and widening of eight miles of the PA Turnpike and replacement of six bridges crossing over the highway. With more than 40,000 cars and trucks traveling this stretch per day, it is one of the busiest parts of the Turnpike in the region. When complete, this project will tie directly into the newly constructed, three-lane Allegheny River Bridges completed in October 2010. The project is scheduled to be completed in late 2019.

MP 124 to MP 134 Reconstruction and Widening – This project includes the reconstruction and widening of approximately nine miles of the PA Turnpike, including some curve flattening on the mainline, replacement of three overhead bridges and three mainline bridges. Also included is the New Baltimore Slope Remediation project located from Milepost 127.9 (Tunnel Road) to Milepost 128.7 (0.3 miles West of Findley Street) in Allegheny Township, Somerset County. The widening of the Turnpike mainline will be completed in two construction contracts, one from Milepost 124.5 to Milepost 130.5 and one from Milepost 130.5 to Milepost 133.8. Upon completion of the projects, the Turnpike will be widened from 82 feet to 122 feet and will consist of six travel lanes (three in each direction) with a 26-foot median and 12-foot outside shoulders. The three overhead bridges have been replaced and the New Baltimore Slope Remediation is substantially complete. The turnpike widening schedule has yet to be determined.

MP 149.5 to MP 155.5 Reconstruction and Widening – The PTC plans to invest $150 million to provide for the total roadway reconstruction and widening of six miles of the PA Turnpike, which includes replacing or eliminating bridges. The project area begins at Milepost 149.5 east of the Bedford Interchange (Exit 146) and continues to Milepost 155.5 west of the Breezewood Interchange (Exit 161), in Snake Spring and West Providence Townships, Bedford County.

MP 202 to MP 206 Reconstruction and Widening – This project will reconstruct the existing roadway, shoulders, and median and add a third travel lane in each direction for a five-mile stretch just east of the Blue Mountain interchange in Cumberland County. Phase 1, which included construction of a third lane and shoulders in each direction was completed in December 2017. Phase

2, during which traffic will be shifted onto these outside lanes while the median and interior lanes are excavated and reconstructed, is ongoing and expected to be completed in December 2018.

MP 242 to MP 245 Reconstruction and Widening – This project involves widening the existing 4-lane highway to six lanes (three in each direction) with a 26-foot median from just east of the Harrisburg West interchange (MP 242) to the tie in to the new Susquehanna River Bridge Project (MP 245.4), which will complete six lanes from the Harrisburg West Interchange to the Harrisburg East Interchange (Exit 247). Two lanes of traffic in each direction will be maintained on the Turnpike at most times during construction. All mainline work being is expected to be completed in 2018.

4.1.2 Pennsylvania Turnpike I-276/I-95 Interchange Project

This is a major project that will be completed in three stages. The project includes the construction of a high-speed, full-access interchange between I-276 and a re-designated I-95, making I-95 continuous through the mid-Atlantic region. The project also includes roadway widening on I-276 from immediately west of Interchange 351 (Bensalem) eastward to the western side of the Delaware River Bridge. A new parallel bridge on I-276 will be constructed over the Delaware River. In addition, the project includes changes to the tolling locations and toll structure on I-276.

The following describes the three stages of the I-276/I-95 Interchange Project. Only Stage 1 is under active construction. Estimated traffic and toll revenue impacts associated with Stage 1 are included in this study. Stages 2 and 3 are described below only for informational purposes.

Stage 1: (Mile post 356 to 360), expected completion in 2018

- The new westbound mainline toll plaza on I-276 just west of the Delaware River Bridge was opened in January 2016. Tolls are collected based on a vehicle's number of axles.
- Simultaneously with the opening of the new westbound toll plaza, a new eastern terminus of the I-276/I-76 Ticket System opened. This new mainline toll plaza is located between the Street Road Interchange and I-95.
- I-276 roadway widening from Interchange 351 to the Delaware River Bridge was completed in 2017.
- New high-speed ramps between I-95 and I-276 (northbound I-95 to eastbound I-276, and westbound I-276 to southbound I-95) are anticipated to open in September 2018.

Stage 2 (MP 351 to MP 356) includes the remaining six ramp movements of the new interchange and completion of the mainline widening. This stage is not currently funded, although final design has continued on some contracts.

Stage 3 (MP 320) brings an additional bridge over the Delaware River parallel to the existing bridge. This stage is not funded and is unlikely to begin construction until after 2025.

4.1.3 Northeast Extension (I-476) Roadway Improvement Projects

MP A31 to MP A38 Total Reconstruction Project - This section of the Turnpike will be completely reconstructed from the ground up and widened from two lanes in each direction with limited shoulders to three lanes in each direction with 12-foot right and left shoulders. The overhead bridges along the project corridor are only wide enough to accommodate the current roadway width, so they need to be replaced before the mainline Turnpike widening can occur. Construction on the overhead bridges began in the spring of 2013. Construction on the mainline Turnpike recently began; the opening of northbound and southbound traffic to three lanes in each direction is scheduled for late fall 2020. The anticipated completion of the entire project is expected to occur by early summer 2021.

Hawk Falls Bridge Replacement Project (MP 89) – The goal of this project is to completely replace the Hawk Falls Bridge and the Hickory Run Bridge. The bridge carries two lanes of Turnpike traffic, in each direction, over Mud Run in Penn Forest Township and Kidder Township, Carbon County. The new bridge will carry two traffic lanes and shoulders in each direction. The existing Hickory Run Bridge, directly to the north of the Hawk Falls Bridge, will also be replaced. This three-span mainline bridge, measuring 111' in length, carries the Turnpike over Hickory Run Road (SR 0534). Estimated project completion is June 2022.

4.1.4 Southern Beltway (Toll 576)

Findlay Connector Cashless Tolling Conversion - This project will convert the Findlay Connector (Toll 576) to a cashless tolling facility by constructing overhead gantries and demolishing existing toll facilities on exit ramps. This work is part of the PA Turnpike's conversion to cashless tolling on Toll 576, which will eventually connect to the Southern Beltway once work there is complete.

Southern Beltway – The current Toll 576, referred to as the Findlay Connector, runs six miles south from I-76 at Pittsburgh International Airport to U.S. 22. This section of highway was opened in 2006. The Southern Beltway project will extend Toll 576 another 13 miles southeast from U.S. 22 to I-79 near the Allegheny/Washington County line and include four new interchanges. The project is divided into nine construction segments, with the last one expected to be completed in summer 2021, when the highway will be opened to traffic. The entire length of Toll 576 will be a cashless tolling facility.

4.2 Construction Related Impacts on Turnpike System Traffic

Ongoing construction related impacts stemming from roadway widening and reconstruction projects on the Turnpike System are expected to be minimal. Construction projects on the Turnpike System are planned to minimize lane closures or any restrictions to the Turnpike. When such measures are necessary, they are conducted overnight to avoid interfering with heavier daytime traffic volumes. Generally, preference is given to Turnpike mainline traffic and construction-related disruptions are more likely to affect cross streets and Turnpike access points. Two travel lanes are maintained in both directions during construction activities.

For purposes of conservatism, the only positive traffic and toll revenue impacts that are included as part of this study are for the Mainline I-76/I-276 and I-95 Interchange Project and the opening of the Southern Beltway to I-79. As shown in Table 4-1, the partial I-95 Interchange project is assumed to open in September 2018; it is estimated to add approximately $6.5 million to total System toll revenue in the first full year of operation. The Southern Beltway toll road extension to I-79 is currently assumed to open in the summer of 2021. To be conservative from a toll revenue perspective, we have assumed a January 2022 opening date for this project. It is expected to add approximately $6.7 million to total System toll revenue in 2022.

4.3 Assumed Toll Rate Increases on the Turnpike

At the direction of the PTC, annual toll rate increases are assumed to occur on the entire Turnpike System. The toll rate increases are assumed to occur within several days of January 1 of each year. Table 4-2 presents actual and assumed percent increases in toll rates for each calendar year from 2015 through 2048.

As shown in Table 4-2, the assumed percent increases in toll rates are identical for cars and trucks, and for E-ZPass and cash transactions throughout the forecast period. Future toll-rate increases range from 3.0 to 6.0% per year between 2019 and 2048. Consistent with the PTC tolling policy, all E-ZPass tolls are rounded to the nearest cent, and cash toll rates are rounded up to the nearest nickel.

At the direction of the PTC, the toll rate increases shown in Table 4-2 were used in the development of the traffic and toll revenue forecasts, including the assumption that the percent toll rate increases are the same for both E-ZPass and cash transactions. The PTC reserves the right to implement toll rate differentials between E-ZPass and cash in future years.

Table 4-2
Actual and Assumed Future Toll Rate Increases (1)

Calendar Year	Percent Increase For Cars and Trucks		Sample Toll Rates (2)					
			$1.00 Toll		$2.50 Toll		$10.00 Toll	
	Cash	E-ZPass	Cash	E-ZPass	Cash	E-ZPass	Cash	E-ZPass
2015 (3)	5.0	5.0	$1.00	$1.00	$2.50	$2.50	$10.00	$10.00
2016 (3)	6.0	6.0	1.10	1.06	2.65	2.65	10.60	10.60
2017 (3)	6.0	6.0	1.20	1.12	2.85	2.81	11.25	11.24
2018 (3)	6.0	6.0	1.30	1.19	3.05	2.98	11.95	11.91
2019	6.0	6.0	1.40	1.26	3.25	3.16	12.70	12.62
2020	6.0	6.0	1.50	1.34	3.45	3.35	13.50	13.38
2021	5.0	5.0	1.60	1.41	3.65	3.52	14.20	14.05
2022	5.0	5.0	1.70	1.48	3.85	3.70	14.95	14.75
2023	5.0	5.0	1.80	1.55	4.05	3.89	15.70	15.49
2024	5.0	5.0	1.90	1.63	4.30	4.08	16.50	16.26
2025	5.0	5.0	2.00	1.71	4.55	4.28	17.35	17.07
2026	4.0	4.0	2.10	1.78	4.75	4.45	18.05	17.75
2027	3.5	3.5	2.20	1.84	4.95	4.61	18.70	18.37
2028	3.0	3.0	2.30	1.90	5.10	4.75	19.30	18.92
2029	3.0	3.0	2.40	1.96	5.30	4.89	19.90	19.49
2030	3.0	3.0	2.50	2.02	5.50	5.04	20.50	20.07
2031	3.0	3.0	2.60	2.08	5.70	5.19	21.15	20.67
2032	3.0	3.0	2.70	2.14	5.90	5.35	21.80	21.29
2033	3.0	3.0	2.80	2.20	6.10	5.51	22.50	21.93
2034	3.0	3.0	2.90	2.27	6.30	5.68	23.20	22.59
2035	3.0	3.0	3.00	2.34	6.50	5.85	23.90	23.27
2036	3.0	3.0	3.10	2.41	6.70	6.03	24.65	23.97
2037	3.0	3.0	3.20	2.48	6.95	6.21	25.40	24.69
2038	3.0	3.0	3.30	2.55	7.20	6.40	26.20	25.43
2039	3.0	3.0	3.40	2.63	7.45	6.59	27.00	26.19
2040	3.0	3.0	3.55	2.71	7.70	6.79	27.85	26.98
2041	3.0	3.0	3.70	2.79	7.95	6.99	28.70	27.79
2042	3.0	3.0	3.85	2.87	8.20	7.20	29.60	28.62
2043	3.0	3.0	4.00	2.96	8.45	7.42	30.50	29.48
2044	3.0	3.0	4.15	3.05	8.75	7.64	31.45	30.36
2045	3.0	3.0	4.30	3.14	9.05	7.87	32.40	31.27
2046	3.0	3.0	4.45	3.23	9.35	8.11	33.40	32.21
2047	3.0	3.0	4.60	3.33	9.65	8.35	34.45	33.18
2048	3.0	3.0	4.75	3.43	9.95	8.60	35.50	34.18

(1) Future toll rate increases are assumed to be implemented within several days of January 1.
(2) By PTC Policy, cash toll rates are rounded up to the nearest nickel and E-ZPass rates are rounded to the nearest penny.
(3) Reflects actual toll rate increases on the Turnpike System.

4.4 Estimated E-ZPass Market Shares in Future Years

Because a price differential has been established between cash and E-ZPass toll rates, it is important to estimate future year E-ZPass market shares in order to forecast gross toll revenues. Historically, cash and E-ZPass toll rates were virtually identical until 2011, differing only because cash rates were rounded up to the nearest nickel while E-ZPass rates were rounded up to the nearest cent. There was no reason for a customer to choose E-ZPass over cash based solely on the toll rate.

In 2011, 2012, 2013 and 2014, differential toll rate increases were implemented. As a result of these differential rate increases, cash toll rates are theoretically 39.5% greater than E-ZPass rates. The actual differential is even greater for lower price tolls due to the effect of rounding up to the nearest nickel for cash rates. The differential creates incentives for cash customers to shift to E-ZPass, and for new accounts to favor E-ZPass over cash.

Future year E-ZPass market shares were developed based on the assumed future toll rate increases shown in Table 4-2, and the historic trends in E-ZPass market share. Table 4-3 presents the actual percent E-ZPass market shares from calendar years 2011 through 2017, and the estimated percent E-ZPass market shares from 2018 through 2048 for passenger cars and commercial vehicles. Also shown are the percentage point increases in the E-ZPass market share over the prior year.

In 2011, the E-ZPass market share totaled 60.2% for passenger cars and 79.0% for commercial vehicles. By 2017, those values increased to 78.3% for passenger cars and 90.1% for commercial vehicles. A large portion of those increases were the direct result of increasing discounts for E-ZPass trips versus cash trips implemented from 2011 through 2014.

The estimated E-ZPass market shares for calendar years 2018 through 2048 continues to increase, but at a lower rate than in the recent past. This is because the toll differential is assumed to remain constant over this time period and because the E-ZPass market share is reaching its saturation point. In practical terms, there will likely always be customers who choose not to use E-ZPass. As shown in Table 4-3, by 2048 passenger car E-ZPass market share is estimated at 89.7% and the commercial vehicle market share is estimated to be 95.0%. For purposes of this analysis, it was assumed that the maximum E-ZPass market share would be 95.0%. Given the already high participation rate by commercial vehicles, they reach this level by 2030.

Table 4-3
Actual and Estimated E-ZPass Market Share
Pennsylvania Turnpike System

Calendar Year		Passenger Cars: Percent Market Share	Passenger Cars: Percent Increase in Market Share	Commercial Vehicles: Percent Market Share	Commercial Vehicles: Percent Increase in Market Share	Total Vehicles: Percent Market Share	Total Vehicles: Percent Increase in Market Share
2011	(1)	60.2		79.0		62.6	
2012	(1)	64.3	4.1	81.6	2.6	66.5	3.9
2013	(1)	68.8	4.5	84.2	2.6	70.8	4.3
2014	(1)	72.0	3.2	86.0	1.8	73.9	3.1
2015	(1)	73.9	1.9	87.8	1.8	75.8	1.9
2016	(1)	76.2	2.3	89.2	1.4	78.0	2.2
2017	(1)	78.3	2.1	90.1	0.9	79.9	1.9
2018	(2)	80.5	2.2	91.1	1.0	82.0	2.1
2019	(2)	81.9	1.4	91.9	0.8	83.3	1.3
2020	(2)	83.2	1.3	92.6	0.7	84.5	1.2
2021	(2)	84.2	1.0	93.1	0.5	85.5	1.0
2022	(2)	84.3	0.1	93.6	0.5	85.6	0.1
2023	(2)	85.0	0.7	94.1	0.5	86.3	0.7
2024	(2)	85.6	0.6	94.6	0.5	86.9	0.6
2025	(2)	86.2	0.6	94.8	0.2	87.4	0.5
2026	(2)	86.7	0.5	94.8	0.0	87.9	0.5
2027	(2)	87.2	0.5	94.9	0.1	88.3	0.4
2028	(2)	87.7	0.5	94.9	0.0	88.7	0.4
2029	(2)	88.1	0.4	94.9	0.0	89.1	0.4
2030	(2)	88.6	0.5	95.0	0.1	89.5	0.4
2031	(2)	88.9	0.3	95.0	0.0	89.8	0.3
2032	(2)	89.0	0.1	95.0	0.0	89.9	0.1
2033	(2)	89.1	0.1	95.0	0.0	90.0	0.1
2034	(2)	89.2	0.1	95.0	0.0	90.1	0.1
2035	(2)	89.3	0.1	95.0	0.0	90.1	0.0
2036	(2)	89.3	0.0	95.0	0.0	90.2	0.1
2037	(2)	89.4	0.1	95.0	0.0	90.2	0.0
2038	(2)	89.4	0.0	95.0	0.0	90.2	0.0
2039	(2)	89.5	0.1	95.0	0.0	90.3	0.1
2040	(2)	89.5	0.0	95.0	0.0	90.3	0.0
2041	(2)	89.5	0.0	95.0	0.0	90.3	0.0
2042	(2)	89.5	0.0	95.0	0.0	90.4	0.1
2043	(2)	89.6	0.1	95.0	0.0	90.4	0.0
2044	(2)	89.6	0.0	95.0	0.0	90.4	0.0
2045	(2)	89.6	0.0	95.0	0.0	90.4	0.0
2046	(2)	89.6	0.0	95.0	0.0	90.4	0.0
2047	(2)	89.7	0.1	95.0	0.0	90.5	0.1
2048	(2)	89.7	0.0	95.0	0.0	90.5	0.0

(1) Actual E-ZPass market share.
(2) Estimated E-ZPass market share.

4.5 Transaction and Gross Toll Revenue Forecasts

This section summarizes the forecasts of toll transactions and toll revenue based on the information provided in the preceding sections of this report. All previously discussed information regarding future transaction growth rates in the various Turnpike corridors (Chapter 3) as well as assumed toll rates, E-ZPass market share, etc. are all brought together to develop the following forecasts.

A more detailed approach was taken in developing the short term forecast over the next two calendar years (2018 and 2019). Forecasts were developed on monthly basis during these two years for passenger cars and commercial vehicles and for each Turnpike toll facility (Ticket System, Beaver Valley, Mon/Fayette Expressway, etc.). This accomplished two things. First it allowed us to take into account the most recent growth trends on all facilities. Second, it allowed us to create a "normal" calendar year by 2019, correcting for such things as adverse weather, the number of weekdays and weekend days in a month, and unique impacts such as the closure of the DRB in early 2017. Once a normalized 2019 was developed, the longer-term growth rates established through the socioeconomic analysis described in Chapter 3 were applied to it and all future years throughout the forecast period.

Table 4-4 shows the historical and near term forecast of toll transaction growth rates on the Turnpike in relation to actual and estimated GDP, GRP and GSP between 2010 and 2020. As shown, the recent low growth experience in 2017 (-0.9%) is estimated to continue over the short term, with total toll transactions forecasted to grow by only 0.0% in 2018 and -0.5% in 2019. This is in spite of estimated positive GDP, GRP and GSP growth (between 2.0% and 3.0%) over this same period. The low growth in 2017 was impacted by the 7-week closure of the DRB, but it is also likely that the effect of recent toll increases also dampened traffic growth. CDM Smith factored in continued low growth in 2018 and 2019 to account for the continued impact of toll increases. In addition, we have factored in negative growth in January and February 2019 to reflect more normal negative weather impacts. After 2019, we begin to factor in the longer-term growth rates established in Chapter 3, and factoring in the programed toll increases throughout the forecast period. Overall, total Turnpike System toll transaction growth is estimated to average just under 0.9% over the entire 30-year forecast period.

Table 4-4

Actual and Forecasted Measures of Commercial Activity and Growth in Total Turnpike System Transactions

Percent Change over Prior Year

Calendar Year	Gross Domestic Product Growth[1] (U.S.)	Gross Regional Product Growth[1] (NJ, NY, PA)	Gross State Product Growth[1] (PA)	PA Turnpike System Percent Transaction Growth[2]: Passenger Cars	PA Turnpike System Percent Transaction Growth[2]: Commercial Vehicles	PA Turnpike System Percent Transaction Growth[2]: All Vehicles
2010 (actual)	2.5%	2.6%	2.7%	1.0%	4.0%	1.3%
2011 (actual)	1.6	0.4	1.3	-1.1	1.0	-0.9
2012 (actual)	2.2	2.5	1.6	0.3	0.6	0.3
2013 (actual)	1.7	0.6	1.6	0.6	3.0	0.9
2014 (actual)	2.6	1.5	2.0	0.0	4.2	0.5
2015 (actual)	2.9	1.9	2.3	2.3	3.9	2.5
2016 (actual)	1.5	0.5	0.6	3.1	4.2	3.3
2017 (actual)	2.3	1.6	1.9	-1.1	0.2	-0.9
2018 (forecast)	3.0	3.0	3.0	-0.2	1.6	0.0
2019 (forecast)	2.6	2.0	2.2	-0.7	0.1	-0.5
2020 (forecast)	0.9	0.2	0.3	0.0	0.9	0.1

(1) The percent changes in U.S. GDP, GRP, and GSP are based on chained 2009 dollars. The U.S. GDP is actual through 2017. The GRP and GSP are actual through 2016. Actual data was obtained from the U.S. Bureau of Economic Analysis. Forecast data was from Moody's Analytics baseline forecast (April 2018 for regional, February 2018 for Pennsylvania).

Table 4-5 shows estimated Ticket System transactions and gross toll revenue through FY 2047-48. Actual data is shown for FY 2016-17 and for the first nine months of FY 2017-18 (through February 2018). As shown, total ticket toll transactions are estimated to increase from about 157.3 million in FY 2016-17 (the latest full year of actual experience) to just over 198.2 million by FY 2047-48; this represents a total increase over this period of 26.0% or an average annual growth rate of 0.75%. Annual gross toll revenue is estimated to increase from $1.0 billion in FY 2016-17 to just over $4.0 billion by FY 2047-48. This represents an average annual increase of about 4.6% and includes the impacts of normal growth, annual toll rate increases, and the impact of the I-95 Interchange.

Table 4-6 identifies the same transaction and gross toll revenue information for the Barrier System. As shown, total transactions are estimated to increase from about 43.2 million in FY 2016-17 to 62.1 million by FY 2047-48; this represents a total increase over this period of 43.7% or an average annual increase of about 1.18%. This is slightly greater than the rate of growth for the Ticket System but is positively impacted by the addition of the Southern Beltway extension to I-79 in January 2022. This adds two more mainline tolling zones to this corridor. Absent these two new tolling zones, average annual growth over the forecast period would have been about 0.70%. Estimated annual toll revenue is expected to increase from about $110.6 million in FY 2016-17 to $450.4 million by the end of the forecast period. This represents a 4.6% annual rate of increase. Again, this is influenced by normal growth, toll increases, and the impact of the Southern Beltway extension to I-79.

Table 4-7 identifies total combined transactions and gross toll revenue and also factors in estimated toll discounts and adjustments. The vast majority of the discounts and adjustments results from commercial account toll adjustments due to the Turnpike's volume discount program. The volume discount program allows for a 3.0% discount to be provided to accounts that accrue $20,000 or more in monthly tolls. Discounts and adjustments shown in Table 4-7 assume no further changes to the post-paid commercial volume discount program during the forecast period. The result is that the current forecasts have a negative adjustment applied for FY 2017-18 and beyond that equals 1.3% of the commercial vehicle gross toll revenue, which is based on the most recent 12 months of actual experience.

As shown in Table 4-7, total transactions increase from 200.5 million in FY 2016-17 to just over 260.3 million by FY 2047-48; this represents a total increase of about 30.0%, or an average annual increase of 0.85%, over the forecast period. Total net toll revenue, after discounts and adjustments, is estimated to grow from approximately $1.1 billion in FY 2016-17 to just under $4.5 billion by FY 2047-48, representing a 4.6% average annual rate of growth. This includes normal growth, toll increase impacts, additional revenue from the I-95 Interchange and Southern Beltway projects, and toll discounts and adjustments.

Table 4-5
Ticket System: Estimated Annual Transactions and Gross Toll Revenue (1)
Pennsylvania Turnpike Commission

Traffic and Toll Revenue in Thousands

		Annual Traffic			Annual Gross Toll Revenue		
Fiscal Year		Passenger Cars	Commercial Vehicles	Total Vehicles	Passenger Cars	Commercial Vehicles	Total Vehicles
2016-17	(2) (4)	135,128	22,179	157,307	$564,915	$439,495	$1,004,410
2017-18	(3)	134,129	22,408	156,537	598,105	472,972	1,071,077
2018-19	(5)	133,599	22,374	155,973	633,248	499,276	1,132,524
2019-20		133,412	22,527	155,939	671,305	531,859	1,203,164
2020-21		133,773	22,728	156,501	711,251	565,746	1,276,997
2021-22		134,685	22,978	157,663	751,554	599,878	1,351,432
2022-23		135,928	23,256	159,183	795,590	636,850	1,432,440
2023-24		137,132	23,532	160,664	841,671	676,000	1,517,670
2024-25		138,413	23,818	162,231	890,797	717,976	1,608,773
2025-26		139,936	24,125	164,061	940,670	760,445	1,701,115
2026-27		141,553	24,430	165,983	985,925	799,239	1,785,164
2027-28		143,137	24,720	167,857	1,027,955	835,336	1,863,291
2028-29		144,685	25,009	169,695	1,067,694	870,468	1,938,162
2029-30		146,203	25,298	171,501	1,108,561	906,942	2,015,504
2030-31		147,687	25,587	173,274	1,151,269	944,806	2,096,076
2031-32		149,157	25,875	175,033	1,197,183	984,113	2,181,296
2032-33		150,613	26,163	176,776	1,245,743	1,024,916	2,270,659
2033-34		152,018	26,451	178,469	1,295,726	1,067,273	2,362,999
2034-35		153,382	26,739	180,120	1,347,237	1,111,254	2,458,491
2035-36		154,707	27,027	181,734	1,400,330	1,156,926	2,557,256
2036-37		156,009	27,310	183,318	1,455,206	1,204,091	2,659,296
2037-38		157,224	27,584	184,808	1,511,294	1,252,670	2,763,964
2038-39		158,398	27,859	186,257	1,569,031	1,303,100	2,872,131
2039-40		159,554	28,134	187,688	1,628,713	1,355,455	2,984,168
2040-41		160,689	28,410	189,099	1,690,343	1,409,816	3,100,159
2041-42		161,796	28,687	190,483	1,753,937	1,466,264	3,220,202
2042-43		162,870	28,965	191,835	1,819,457	1,524,879	3,344,336
2043-44		163,916	29,244	193,160	1,887,030	1,585,753	3,472,783
2044-45		164,936	29,524	194,460	1,956,723	1,648,967	3,605,690
2045-46		165,928	29,805	195,733	2,028,563	1,714,605	3,743,168
2046-47		166,905	30,087	196,992	2,102,783	1,782,770	3,885,552
2047-48		167,869	30,371	198,240	2,179,492	1,853,568	4,033,060

(1) Annual toll rate increases are implemented in January of each year (see Table 4-2).
(2) Reflects actual traffic and revenue experience.
(3) Reflects actual experience through February 2018.
(4) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(5) Reflects the impacts for I-95 Interchange Stage 1 beginning in September 2018.

Table 4-6
Barrier Systems: Estimated Annual Transactions and Gross Toll Revenue (1)
Pennsylvania Turnpike Commission

Traffic and Toll Revenue in Thousands

	Annual Traffic			**Annual Gross Toll Revenue**		
Fiscal Year	Passenger Cars	Commercial Vehicles	Total Vehicles	Passenger Cars	Commercial Vehicles	Total Vehicles
2016-17 (2) (4)	37,671	5,524	43,195	$73,872	$36,694	$110,566
2017-18 (3) (5)	38,035	5,955	43,989	78,464	41,223	119,687
2018-19 (6)	37,302	5,950	43,252	81,686	43,778	125,464
2019-20	37,065	6,020	43,084	86,357	47,391	133,748
2020-21	36,984	6,089	43,073	91,059	50,866	141,925
2021-22 (7)	39,380	6,423	45,803	97,662	54,886	152,548
2022-23	43,538	6,982	50,520	106,192	59,651	165,844
2023-24	44,579	7,159	51,738	112,616	63,672	176,288
2024-25	45,478	7,318	52,796	119,363	67,894	187,257
2025-26	46,198	7,448	53,646	126,061	71,996	198,058
2026-27	46,818	7,561	54,379	132,178	75,666	207,844
2027-28	47,202	7,641	54,843	137,722	78,999	216,721
2028-29	47,585	7,721	55,306	143,030	82,241	225,271
2029-30	47,945	7,799	55,744	148,412	85,603	234,015
2030-31	48,286	7,876	56,162	153,936	89,086	243,022
2031-32	48,619	7,952	56,571	159,617	92,690	252,308
2032-33	48,941	8,028	56,969	165,446	96,415	261,861
2033-34	49,254	8,103	57,357	171,451	100,275	271,726
2034-35	49,559	8,178	57,737	177,687	104,279	281,967
2035-36	49,855	8,253	58,108	184,160	108,434	292,594
2036-37	50,143	8,327	58,470	190,827	112,727	303,553
2037-38	50,420	8,400	58,820	197,668	117,147	314,815
2038-39	50,695	8,473	59,168	204,724	121,725	326,449
2039-40	50,969	8,546	59,516	212,023	126,474	338,497
2040-41	51,240	8,619	59,860	219,566	131,401	350,966
2041-42	51,505	8,692	60,198	227,337	136,507	363,845
2042-43	51,762	8,765	60,527	235,334	141,800	377,134
2043-44	52,013	8,837	60,850	243,568	147,287	390,855
2044-45	52,257	8,909	61,166	252,049	152,975	405,024
2045-46	52,494	8,981	61,475	260,776	158,871	419,647
2046-47	52,725	9,052	61,777	269,765	164,983	434,748
2047-48	52,951	9,124	62,075	279,034	171,319	450,353

(1) Annual toll rate increases are implemented in January of each year (see Table 4-2).
(2) Reflects actual traffic and revenue experience.
(3) Reflects actual experience through February 2018.
(4) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(5) Reflects Northeast Extension Barrier and PA I-576 conversion to cashless tolling beginning in April 2018.
(6) Reflects the impacts for I-95 Interchange Stage 1 beginning in September 2018.
(7) Reflects opening of the Southern Beltway between US 22 and I-79 beginning in January 2022.

Table 4-7
Total System: Estimated Annual Transactions and Gross Toll Revenue (1)
Pennsylvania Turnpike Commission

Traffic and Toll Revenue in Thousands

	Annual Traffic			Annual Gross Toll Revenue			Discounts	
Fiscal Year	Passenger Cars	Commercial Vehicles	Total Vehicles	Passenger Cars	Commercial Vehicles	Total Vehicles	**and Adjustments (8)**	**Net Toll Revenue**
2016-17 (2) (4)	172,799	27,703	200,501	$638,787	$476,188	$1,114,975	($3,915)	$1,111,061
2017-18 (3) (5)	172,164	28,363	200,527	676,570	514,194	1,190,764	(6,685)	1,184,080
2018-19 (6)	170,901	28,324	199,225	714,934	543,054	1,257,989	(7,060)	1,250,929
2019-20	170,477	28,547	199,024	757,662	579,250	1,336,913	(7,530)	1,329,382
2020-21	170,757	28,817	199,574	802,310	616,612	1,418,922	(8,016)	1,410,906
2021-22 (7)	174,066	29,401	203,467	849,216	654,764	1,503,980	(8,512)	1,495,468
2022-23	179,466	30,237	209,703	901,782	696,502	1,598,284	(9,055)	1,589,229
2023-24	181,712	30,691	212,402	954,287	739,671	1,693,958	(9,616)	1,684,343
2024-25	183,891	31,136	215,027	1,010,161	785,869	1,796,030	(10,216)	1,785,814
2025-26	186,134	31,573	217,707	1,066,731	832,441	1,899,172	(10,822)	1,888,350
2026-27	188,371	31,991	220,362	1,118,104	874,905	1,993,009	(11,374)	1,981,635
2027-28	190,339	32,361	222,700	1,165,677	914,335	2,080,013	(11,886)	2,068,126
2028-29	192,271	32,730	225,001	1,210,723	952,709	2,163,433	(12,385)	2,151,047
2029-30	194,148	33,097	227,245	1,256,973	992,545	2,249,518	(12,903)	2,236,615
2030-31	195,974	33,463	229,436	1,305,205	1,033,893	2,339,098	(13,441)	2,325,657
2031-32	197,776	33,827	231,603	1,356,800	1,076,804	2,433,604	(13,998)	2,419,605
2032-33	199,554	34,191	233,745	1,411,190	1,121,330	2,532,520	(14,577)	2,517,943
2033-34	201,272	34,554	235,826	1,467,177	1,167,548	2,634,725	(15,178)	2,619,547
2034-35	202,940	34,917	237,857	1,524,924	1,215,534	2,740,458	(15,802)	2,724,656
2035-36	204,562	35,280	239,842	1,584,489	1,265,360	2,849,849	(16,450)	2,833,400
2036-37	206,151	35,637	241,788	1,646,032	1,316,818	2,962,850	(17,119)	2,945,731
2037-38	207,644	35,984	243,628	1,708,962	1,369,817	3,078,779	(17,808)	3,060,971
2038-39	209,093	36,332	245,424	1,773,755	1,424,825	3,198,580	(18,523)	3,180,057
2039-40	210,524	36,680	247,204	1,840,736	1,481,930	3,322,666	(19,265)	3,303,400
2040-41	211,929	37,030	248,959	1,909,909	1,541,216	3,451,125	(20,036)	3,431,090
2041-42	213,302	37,379	250,681	1,981,275	1,602,771	3,584,046	(20,836)	3,563,210
2042-43	214,632	37,730	252,362	2,054,791	1,666,679	3,721,470	(21,667)	3,699,804
2043-44	215,929	38,081	254,010	2,130,598	1,733,040	3,863,638	(22,530)	3,841,108
2044-45	217,194	38,433	255,627	2,208,771	1,801,942	4,010,714	(23,425)	3,987,289
2045-46	218,422	38,786	257,208	2,289,339	1,873,476	4,162,815	(24,355)	4,138,460
2046-47	219,630	39,140	258,770	2,372,548	1,947,752	4,320,300	(25,321)	4,294,979
2047-48	220,821	39,495	260,315	2,458,526	2,024,887	4,483,412	(26,324)	4,457,089

(1) Annual toll rate increases are implemented in January of each year (see Table 4-2).
(2) Reflects actual traffic and revenue experience.
(3) Reflects actual experience through February 2018.
(4) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(5) Reflects Northeast Extension Barrier and PA I-576 conversion to cashless tolling beginning in April 2018.
(6) Reflects the impacts for I-95 Interchange Stage 1 beginning in September 2018.
(7) Reflects opening of the Southern Beltway between US 22 and I-79 beginning in January 2022.
(8) No changes are assumed in the commercial discount program throughout the forecast period. Impacts are assumed to remain constant at -1.3% of total gross commercial toll revenue, which is based on actual experience during the most recent fiscal year.

Fiduciary Disclaimer

Current accepted professional practices and procedures were used in the development of these updated traffic and revenue forecasts. However, as with any forecast of the future, there may be differences between forecasted and actual results caused by events and circumstances beyond the control of CDM Smith. In formulating its forecasts, CDM Smith has reasonably relied upon the accuracy and completeness of information provided (both written and oral) by the PTC and other local and state agencies. CDM Smith also has relied upon the reasonable assurances of some independent parties and is not aware of any facts that would make such information misleading.

CDM Smith has made qualitative judgments related to several key variables in the development and analysis of the traffic and revenue forecasts that must be considered as a whole; therefore, selecting portions of any individual result without consideration of the intent of the whole may create a misleading or incomplete view of the results and the underlying methodologies used to obtain the results. CDM Smith gives no opinion as to the value or merit to partial information extracted from this report.

All forecasts and projections reported herein are based on CDM Smith's experience and judgment and on a review of information obtained from multiple state and local agencies, including the PTC. These estimates and projections may not be indicative of actual or future values and are therefore subject to substantial uncertainty. Future developments cannot be predicted with certainty and may affect the forecasts or projections expressed in this report, such that CDM Smith does not specifically guarantee or warrant any forecasts or projections contained within this report.

While CDM Smith believes that some of the projections or other forward-looking statements contained within the report are based on reasonable assumptions as of the date in the report, such forward looking statements involve risks and uncertainties that may cause actual results to differ materially from the results predicted. Therefore, following the date of this report, CDM Smith will take no responsibility or assume any obligation to advise of changes that may affect its assumptions contained within the report, as they pertain to: socioeconomic and demographic forecasts, proposed residential or commercial land use development projects and/or potential improvements to the regional transportation network.

CDM Smith is not, and has not been, a municipal advisor as defined in Federal law (the Dodd Frank Bill) to the PTC and does not owe a fiduciary duty pursuant to Section 15B of the Exchange Act to PTC with respect to the information and material contained in this report. CDM Smith is not recommending and has not recommended any action to the PTC. PTC should discuss the information and material contained in this report with any and all internal and external advisors that it deems appropriate before acting on this information.

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