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File #: 182143

February 16, 2021

VIA ELECTRONIC FILING

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor North
P.O. Box 3265
Harrisburg, PA 17105-3265

Re: Joint Petition for Consolidation of Proceedings and Approval of the Phase IV Energy Efficiency and Conservation Plan of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, and West Penn Power Company - Docket Nos. M-2020-3020820, M-2020-3020821, M-2020-3020822, M-2020-3020823

Dear Secretary Chiavetta:

In accordance with 52 Pa. Code § 5.412a, enclosed please find the following admitted evidence for filing on behalf of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, and West Penn Power Company (“FirstEnergy Companies” or the “Companies”) in the above-referenced proceeding:

Direct Testimony

Met-Ed/Penelec/Penn Power/West Penn
Statement No. 1

Kurt E. Turosky.

Met-Ed/Penelec/Penn Power/West Penn
Statement No. 2

Edward C. Miller.

Met-Ed/Penelec/Penn Power/West Penn
Statement No. 3

Anthony J. Woytko

Exhibits AJW-1 through AJW-6

Rosemary Chiavetta, Secretary
February 16, 2021
Page 2

Rebuttal Testimony

Met-Ed/Penelec/Penn Power/West Penn
Statement No. 2-R

Edward C. Miller

Exhibit ECM-1R

Met-Ed/Penelec/Penn Power/West Penn
Statement No. 3-R

Anthony J. Woytko

Exhibits AJW-1R through AJW-5R

Supplemental Rebuttal Testimony

Met-Ed/Penelec/Penn Power/West Penn
Statement No. 2-R (Supp)

Edward C. Miller

Met-Ed/Penelec/Penn Power/West Penn
Statement No. 3-R (Supp)

Anthony J. Woytko

Also enclosed is a copy of the February 9, 2021 Interim Order admitting the parties' testimony and exhibits into the record.

Copies of this correspondence will be provided as indicated on the Certificate of Service.

Respectfully submitted,



Devin Ryan

DR/jl
Enclosures

cc: Honorable Mark A. Hoyer (*Letter & Certificate of Service Only*)
Honorable Emily I. DeVoe (*Letter & Certificate of Service Only*)
Certificate of Service (*Letter & Certificate of Service Only*)

CERTIFICATE OF SERVICE

(Docket Nos. M-2020-3020820, M-2020-3020821, M-2020-3020822, M-2020-3020823)

I hereby certify that a true and correct copy of the foregoing has been served upon the following persons, in the manner indicated, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

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Date: February 16, 2021



Devin T. Ryan

Met-Ed/Penelec/Penn Power/West Penn Statement No. 1

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

METROPOLITAN EDISON COMPANY
Docket No. M-2020-3020820

PENNSYLVANIA ELECTRIC COMPANY
Docket No. M-2020-3020821

PENNSYLVANIA POWER COMPANY
Docket No. M-2020-3020822

WEST PENN POWER COMPANY
Docket No. M-2020-3020823

PHASE IV ENERGY EFFICIENCY AND CONSERVATION PLAN

**Prepared
Direct
Testimony
of
Kurt E. Turosky**

LIST OF TOPICS ADDRESSED

Overview of the Companies
The EE&C Plan and the Energy Efficiency Team
The Companies' Stakeholder Process
The Use of Conservation Service Providers
The Companies' Competitive Bidding/Contracting Process

1 **I. INTRODUCTION AND BACKGROUND**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Kurt E. Turosky, and my business address is 76 South Main Street, Akron,
4 Ohio 44308.

5
6 **Q. MR. TUROSKY, BY WHOM ARE YOU EMPLOYED AND IN WHAT
7 CAPACITY?**

8 A. I am employed by FirstEnergy Service Company as Director, Energy Efficiency
9 Compliance and Reporting. I report to the Vice President, Distribution Support within the
10 FirstEnergy Utilities organization. I am responsible for compliance and reporting activities
11 related to energy efficiency and conservation (“EE&C”) and peak demand reduction
12 (“PDR”) programs for the FirstEnergy utilities in Ohio, Maryland, New Jersey,
13 Pennsylvania, and West Virginia. I oversee the development, evaluation, and reporting of
14 EE&C and/or PDR programs in compliance with each state’s regulatory requirements.

15
16 **Q. WHAT IS YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND?**

17 A. I hold a Master of Business Administration degree from Case Western Reserve University
18 and a Bachelor of Science degree in Finance from The Pennsylvania State University.
19 Since 1982, I have been employed by FirstEnergy Corp. (“FirstEnergy”) and its
20 predecessor companies. Throughout my career, I have held various management positions
21 in Rates & Regulatory Affairs, Investor Relations, and Energy Efficiency.

22

1 **Q. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE RELEVANT TO**
2 **THE TESTIMONY YOU ARE NOW GIVING.**

3 A. I have over 38 years of electric utility experience, approximately the last 25 years of which
4 have been in managerial positions. I have been in a leadership role in FirstEnergy's Energy
5 Efficiency Department since its formation back in 2008, and I assumed my current title and
6 responsibilities following FirstEnergy's merger with Allegheny Energy Inc. in 2011. In
7 addition to helping direct the development, evaluation, and reporting of EE&C/PDR
8 programs and filings for FirstEnergy utilities in Ohio, Maryland West Virginia, and New
9 Jersey, I also oversee development, evaluation, and reporting of the Pennsylvania utilities'
10 EE&C/PDR programs and filings. Since 2009, I have led the development of the
11 Metropolitan Edison Company's ("Met-Ed"), Pennsylvania Electric Company's
12 ("Penelec"), and Pennsylvania Power Company's ("Penn Power") Phase I, II, and III
13 EE&C Plans, and since 2011, I have led the development of West Penn Power Company's
14 ("West Penn") Phase II and III EE&C Plans. These EE&C Plans all were approved by the
15 Pennsylvania Public Utility Commission ("Commission").¹ I have the same
16 responsibilities related to the EE&C Plan being proposed in this proceeding ("Phase IV
17 Plan").

18
19 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING?**

¹ The Phase I EE&C Plans referenced here were approved at Docket Nos. M-2009-2092222 (Met-Ed), M-2009-2112952 (Penelec), and M-2009-2112956 (Penn Power). The Companies' Phase II EE&C Plans were approved at Docket Nos. M-2012-2334387 (Met-Ed), M-2012-2334392 (Penelec), M-2012-2334395 (Penn Power), and M-2012-2334398 (West Penn). The Companies' Phase III EE&C Plans were approved at Docket Nos. M-2015-2514767 (Met-Ed), M-2015-2514768 (Penelec), M-2015-2514769 (Penn Power), and M-2015-2514772 (West Penn).

Met-Ed/Penelec/Penn Power/West Penn Statement No. 1

1 A. I am testifying on behalf of Met-Ed, Penelec, Penn Power and West Penn (collectively, the
2 “Companies”). Unless otherwise stated, my testimony equally applies to all four
3 Companies. Further, rather than reiterating what is included in the Companies’ proposed
4 Plan in my testimony, any references to sections of the Plan are incorporated as if fully
5 rewritten herein.

6

7 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

8 A. The purpose of my testimony is to provide a general overview of: (i) the Companies; (ii)
9 the Companies’ Phase IV Plan; (iii) the energy efficiency team that I supervise; (iv) the
10 Companies’ stakeholder process; (v) the administration and implementation of the Phase
11 IV Plan; and (vi) the Companies’ competitive bidding/contracting process.

12

13 **Q. PLEASE IDENTIFY THE OTHER WITNESSES WHO WILL BE PROVIDING**
14 **TESTIMONY IN THIS PROCEEDING.**

15 A. Mr. Edward C. Miller, Manager of FirstEnergy’s Compliance and Development team
16 (Met-Ed/Penelec/Penn Power/West Penn Statement No. 2), will discuss the details of the
17 Companies’ Phase IV Plan, explaining how the Plan was developed, how the Plan complies
18 with the requirements set forth in Act 129 of 2008² and the Commission’s Phase IV
19 Implementation Order,³ and why this Commission should approve the proposed Plan.

² Act 129 of 2008 (“Act 129”) was signed into law on October 15, 2008 and became effective on November 14, 2008. Among other things, the Act created an EE&C Program, codified in the Pennsylvania Public Utility Code at Sections 2806.1 and 2806.2, 66 Pa.C.S. §§ 2806.1 and 2806.2.

³ *Energy Efficiency and Conservation Program*, Docket No. M-2020-3015228 (Implementation Order entered June 18, 2020) (“Phase IV Implementation Order”).

Met-Ed/Penelec/Penn Power/West Penn Statement No. 1

1 Mr. Anthony J. Woytko, an Analyst within the FirstEnergy Pennsylvania Rates and
2 Regulatory Affairs Department (Met-Ed/Penelec/Penn Power/West Penn Statement No.
3 3), will discuss the Companies' proposal to recover the costs associated with developing
4 and implementing the Phase IV EE&C Plan through new tariff riders for each of the
5 Companies. He will also explain how the Companies will collect final Phase III EE&C
6 costs after completion of Phase III.

7 8 **II. THE COMPANIES**

9 **Q. PLEASE GENERALLY DESCRIBE THE FIRSTENERGY CORPORATE** 10 **STRUCTURE.**

11 A. FirstEnergy is a public utility holding company headquartered in Akron, Ohio. Among its
12 subsidiaries are 10 electric utility subsidiaries – Met-Ed, Penelec, Penn Power, and West
13 Penn in Pennsylvania, three electric distribution utilities in Ohio (Ohio Edison Company,
14 The Cleveland Electric Illuminating Company, and The Toledo Edison Company), Jersey
15 Central Power and Light Company in New Jersey, Monongahela Power Company in West
16 Virginia, and The Potomac Edison Company in both West Virginia and Maryland. These
17 10 electric utility operating companies compose one of the nation's largest investor-owned
18 electric systems, serving approximately six million customers within a nearly 65,000
19 square-mile area of Ohio, Pennsylvania, New Jersey, West Virginia, and Maryland.
20 FirstEnergy's goal is to develop cost-effective EE&C solutions responsive to state
21 requirements that can, when appropriate, be consistently applied not only in Pennsylvania,
22 but also in the other states within the FirstEnergy footprint. This approach enables

1 FirstEnergy customers to benefit from economies of scale and broader program
2 experiences.

3
4 **Q. PLEASE GENERALLY DESCRIBE THE COMPANIES.**

5 A. Met-Ed is a wholly owned subsidiary of FirstEnergy that provides service to approximately
6 575,000 electric utility customers in southeast Pennsylvania. Penelec is a wholly owned
7 subsidiary of FirstEnergy that provides service to approximately 585,000 electric utility
8 customers in central and western Pennsylvania. Penn Power is a wholly owned subsidiary
9 of Ohio Edison Company, which, in turn, is a wholly owned subsidiary of FirstEnergy.
10 Penn Power provides service to approximately 170,000 electric utility customers in western
11 Pennsylvania. West Penn is a wholly owned subsidiary of FirstEnergy that provides
12 service to approximately 730,000 electric utility customers in western and central
13 Pennsylvania.

14
15 **III. THE PHASE IV PLAN**

16 **Q. PLEASE BRIEFLY DESCRIBE THE HISTORY OF THE COMPANIES' EE&C**
17 **PLANS.**

18 A. On October 15, 2008, then Governor Rendell signed Act 129 into law. Act 129 required
19 the Commission to establish an energy efficiency and conservation program ("EE&C
20 Program").⁴ The EE&C Program contemplated multiple phases. Phase I was completed
21 on May 31, 2013. The Companies met all EE&C and PDR requirements at the end of

⁴ 66 Pa.C.S. §§ 2806.1 and 2806.2.

Met-Ed/Penelec/Penn Power/West Penn Statement No. 1

1 Phase I. Phase II was completed on May 31, 2016, and the Companies met all EE&C
2 requirements. The Companies' Phase III EE&C Plans, which are currently in effect
3 through May 31, 2020 ("Phase III Plans"), are on track to meet all EE&C and PDR
4 requirements. In its Phase IV Implementation Order, the Commission established Phase
5 IV of its EE&C Program, which runs from June 1, 2021, through May 31, 2026 ("Phase
6 IV Period"). The Phase IV Implementation Order sets forth the energy efficiency and peak
7 demand reduction targets for all of the Companies. The energy efficiency and peak demand
8 reduction targets must be met by May 31, 2026, and at least 5.8% of the energy
9 consumption reduction targets must be achieved through the low-income sector.
10 Companies' Witness Miller discusses each of the Companies' targets and related budgets
11 in his direct testimony, along with a description of how the Companies' intend to achieve
12 each of the Phase IV requirements. (See Met-Ed/Penelec/Penn Power/West Penn
13 Statement No. 2.)

14 15 **Q. HOW IS THE PHASE IV PLAN ORGANIZED?**

16 A. The Companies' Phase IV Plan, which is included as an Attachment A to the Joint Petition,
17 is organized consistent with the filing format and template outlined by the Commission in
18 its September 9, 2020 Secretarial Letter issued in Docket No. Docket No. M-2020-
19 3015228. The organization of the Phase IV Plan is set forth in the Table of Contents and
20 addresses all issues identified in the Commission's template.

21 22 **Q. WHAT WERE THE COMPANIES' OVERALL OBJECTIVES WHEN** 23 **DEVELOPING THE PROPOSED PLAN?**

Met-Ed/Penelec/Penn Power/West Penn Statement No. 1

1 A. When developing the Phase IV Plan, the Companies strove to design a Plan that: (i)
2 achieves all of the EE&C and PDR targets, including those for the low-income sector carve
3 out; (ii) includes at least one program for each of the major customer segments; (iii)
4 includes at least one comprehensive program for the residential sector and at least one
5 comprehensive program for the non-residential sector; and (iv) balances costs with results.
6 I believe the Phase IV Plan accomplishes each of these objectives.

7

8 **Q. PLEASE GENERALLY DESCRIBE THE COMPANIES' PROPOSED PLAN**
9 **BEING FILED IN THIS PROCEEDING.**

10 A. The Companies' Phase IV Plan is, in essence, an extension of the successful programs and
11 measures included in the Companies' Phase III EE&C Plans, with the addition of new
12 program measures and a revision of some existing programs and measures that Companies'
13 Witness Miller discusses. However, there is one significant change between the Phase III
14 and Phase IV Plans, which is the need to achieve the peak demand targets through the
15 coincident peak savings from energy efficiency measures in Phase IV in lieu of
16 dispatchable demand response measures in Phase III.

17

18 **Q. IS IT POSSIBLE THAT THE PROGRAMS INCLUDED IN THE COMPANIES'**
19 **PROPOSED PLAN MIGHT BE ADJUSTED DURING THE PLAN PERIOD?**

20 A. Yes, adjustments to programs may be necessary during the Phase IV Period. Given that
21 many of these programs have been in place throughout at least Phase III, if not also
22 throughout Phases I and II, I believe we have anticipated many of the potential
23 contingencies surrounding the programs and have factored these contingencies into the

1 Phase IV Plan designs. Due to the five-year term of the Phase IV period, there may be
2 uncertainties in the economy such as the duration of COVID-19, in the regulatory
3 environment and in technology that may require adjustments during Phase IV.
4 Adjustments may also be necessary as results evolve and as the Companies receive
5 feedback from customers, trade allies, consultants, conservation service providers
6 (“CSPs”), evaluators, interested stakeholders and program managers. If such adjustments
7 are necessary, the Companies will seek the necessary approvals either through an
8 amendment to the Phase IV Plan or through the Commission’s expedited review process
9 established for Phase II,⁵ Phase III⁶ and extended for Phase IV.⁷

10
11 **IV. THE EE&C TEAM AND THE STAKEHOLDER PROCESS**

12 **Q. PLEASE DESCRIBE THE GENERAL PROCESS UTILIZED BY THE**
13 **COMPANIES WHEN DEVELOPING THE PHASE IV PLAN.**

14 A. The Phase IV Plan was created using the process that is described in more detail by
15 Companies’ Witness Miller. The primary contributors to the process were (i) FirstEnergy’s
16 Energy Efficiency Group; (ii) the Companies’ energy efficiency consultant and Phase III
17 Plan program evaluator; and (iii) interested parties who participated in the Companies’
18 stakeholder process.

19

⁵ *Energy Efficiency and Conservation Program*, Docket No. M-2008-2069887, at 114-18 (Implementation Order entered June 10, 2011) (“Phase II Implementation Order”).

⁶ *Energy Efficiency and Conservation Program*, Docket No. M-2014-2424864, at 118 (Implementation Order entered June 19, 2015) (“Phase III Implementation Order”).

⁷ Phase IV Implementation Order at 94-96.

1 **Q. PLEASE DESCRIBE FIRSTENERGY’S ENERGY EFFICIENCY GROUP AND**
2 **ITS ROLE IN THE DEVELOPMENT OF THE PLAN.**

3 A. The FirstEnergy Energy Efficiency Group is made up of approximately 50 employees with
4 a broad spectrum of skills. This group is responsible for ensuring compliance with all state
5 EE&C and PDR requirements and the successful implementation of EE&C and PDR
6 programs offered throughout the FirstEnergy footprint. They also are responsible for the
7 evaluation, measurement, and verification (“EM&V”) of program results as well as the
8 tracking and reporting of the same to management and as required by the various state
9 regulatory agencies. A more detailed description of this group, as well as a management
10 team organization chart, is included in Section 4.2 of the Phase IV Plan.

11 The Program Development Team is a subgroup within the Energy Efficiency
12 Group. It consists of internal FirstEnergy employees and is primarily responsible for the
13 development of not only the Phase IV Plan, but also other EE&C and PDR plans offered
14 by the Companies’ sister utilities in other states. When practical, this team designs
15 programs consistently throughout the FirstEnergy footprint in order to avoid market
16 confusion and to create economies of scale in both program administration and EM&V
17 activities. When designing EE&C and PDR programs, this group relies not only on its
18 expertise and experience, but also on the experience and expertise brought by evaluators,
19 the program implementation team, program implementers, and interested stakeholders.

20
21 **Q. PLEASE DESCRIBE THE PROCESS USED BY THE COMPANIES DURING THE**
22 **DEVELOPMENT OF THE PROPOSED PLAN TO INCORPORATE IDEAS**
23 **FROM INTERESTED PARTIES.**

Met-Ed/Penelec/Penn Power/West Penn Statement No. 1

1 A. Throughout the development of the Phase IV Plan, the Companies solicited input and
2 insight into potential programs through stakeholder meetings and informal discussions. In
3 addition to regular meetings with Phase III program implementers, the Companies held
4 stakeholder meetings on different aspects of the Plan design in December 2019, May 2020,
5 and October 2020. The Companies also participated in numerous meetings with interested
6 parties, including current and potential CSPs and vendors. As part of the Phase III
7 implementation, the Companies further involved stakeholders through outreach with both
8 program allies and other interested parties – a practice that the Companies intend to
9 continue during Phase IV. Input from this very broad group of interested parties has been
10 factored into the various programs’ design.

11

12 **Q. WILL THE COMPANIES CONTINUE TO UTILIZE THE STAKEHOLDER**
13 **PROCESS IN PHASE IV?**

14 A. Yes. During the Phase IV Period, the Companies intend to conduct a minimum of two
15 stakeholder meetings per year where the Companies will review the performance, progress,
16 and operation of the programs and will highlight any significant issues encountered.
17 Additional ad hoc meetings will be held as deemed necessary or as requested by
18 stakeholders.

19

20 **V. CSPs AND THE COMPETITIVE BIDDING PROCESS**

21 **Q. PLEASE EXPLAIN HOW THE PHASE IV PLAN WILL BE ADMINISTERED**
22 **AND IMPLEMENTED.**

Met-Ed/Penelec/Penn Power/West Penn Statement No. 1

1 A. The Companies will continue overall administration and oversight of the Phase IV Plan
2 and utilize third party CSPs to perform various program implementation and support duties.
3 Specific activities that the Companies will oversee include: (i) the Phase IV Plan
4 implementation and performance; (ii) the execution of marketing campaigns; (iii) quality
5 assurance/quality control activities; (iv) tracking and reporting activities; and (v)
6 management of CSPs. The Companies will utilize CSPs to provide many program-related
7 services, including assistance with program implementation, marketing, and EM&V. A
8 more detailed discussion of the responsibilities of both the Energy Efficiency Group and
9 the CSPs is set forth in Sections 4.2 and 4.3 of the Phase IV Plan, respectively.

10

11 **Q. PLEASE EXPLAIN HOW THE CSPs WILL BE SELECTED.**

12 A. The Companies will use a competitive bidding process to select all of their CSPs that
13 provide consultation, design, administration and management, or advisory services to the
14 Companies. The Companies will adhere to the vendor selection requirements set forth in
15 the Commission’s Phase IV Implementation Order and the Companies’ Request for
16 Proposal (“RFP”) process, which the Commission approved on July 16, 2020, by
17 Secretarial Letter. Every CSP contract will be contingent upon Commission approval of
18 both the contract and the applicable programs that are the subject of the contract. RFPs
19 have been, or will be in the near future, distributed to all qualified CSPs registered on the
20 Commission’s website, and the Companies are making and will continue to make an effort
21 to acquire bids from minority or other special category businesses.

22

1 **Q. HAVE THE COMPANIES SELECTED THE CSPs AND OTHER VENDORS**
2 **THAT WILL BE ASSISTING WITH THE IMPLEMENTATION OF THE PHASE**
3 **IV PLAN?**

4 A. Thus far, the Companies have selected ADM Associates, Inc. as their EM&V CSP. The
5 RFP for that contract was issued on August 18, 2020, and the Companies selected ADM
6 Associates, Inc. as the winning bidder in October 2020. The EM&V CSP contract has been
7 filed with the Commission and is currently pending approval by Commission staff. No
8 other CSPs have been selected. As of the submission of this testimony, the only RFP
9 pending is for the Tracking/Reporting system, which was issued on October 23, 2020.
10 However, now that the programs included in the Plan have been finalized, the Companies
11 expect to complete the CSP selection process in early 2021 (conditioned on Commission
12 approval of the CSP contracts and related programs), so as to enable a timely transition and
13 implementation of the programs and measures once Phase IV begins.

14

15 **VI. CONCLUSION**

16 **Q. IN YOUR OPINION, IS THE PHASE IV PLAN CONSISTENT WITH ACT 129**
17 **AND THE COMMISSION’S PHASE IV IMPLEMENTATION ORDER?**

18 A. In my opinion, yes, they are. As Companies’ Witness Miller explains, the Phase IV Plan:
19 • Is designed to maximize the Companies’ opportunity to achieve their respective
20 additional consumption targets, including the carve out for the low-income sector,
21 within the established budgets.

Met-Ed/Penelec/Penn Power/West Penn Statement No. 1

- 1 • Includes specific energy efficiency measures for households at or below 150% of the
2 federal poverty income guidelines, in proportion to that sector’s share of the total
3 energy usage in each of Companies’ service territories.
- 4 • Is designed to achieve at least 15% of the additional consumption reduction target
5 amount in each program year.
- 6 • Includes coincident peak demand reductions designed to meet the targets, guidance,
7 and objectives of the Phase IV Implementation Order.
- 8 • Is cost-effective, in accordance with the 2021 Total Resource Cost Test, and will
9 provide a diverse cross-section of alternatives and reasonable mix of programs and
10 measures that will benefit consumers of all rate classes as required by 66 Pa.C.S. §
11 2806.1(b)(1)(i)(I).
- 12 • Is designed and will be measured based on the 2021 Technical Reference Manual and
13 other metric resources to measure the effect of various EE&C and PDR measures.
- 14 • Includes a variety of EE&C measures and will provide the measures equitably to all
15 customer classes pursuant to 66 Pa.C.S. § 2806.1(a)(5).

16 Further, as Companies’ Witness Woytko explains, the Phase IV Plan includes
17 Section 1307 cost recovery mechanisms, which reflect program acquisition costs (i.e., for
18 program administration, management, and incentives) that are being reasonably allocated
19 to and recovered from the customer classes receiving the direct benefit of measures
20 supported by the programs.

21

22 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

23 A. Yes, it does. However, I reserve the right to supplement my testimony.

Met-Ed/Penelec/Penn Power/West Penn Statement No. 2

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

METROPOLITAN EDISON COMPANY
Docket No. M-2020-3020820

PENNSYLVANIA ELECTRIC COMPANY
Docket No. M-2020-3020821

PENNSYLVANIA POWER COMPANY
Docket No. M-2020-3020822

WEST PENN POWER COMPANY
Docket No. M-2020-3020823

PHASE IV ENERGY EFFICIENCY AND CONSERVATION PLAN

**Prepared
Direct
Testimony
of
Edward C. Miller**

LIST OF TOPICS ADDRESSED

**Phase IV EE&C Targets and Spending Limitations
Development of the Proposed Plan
Summary of the Companies' Phase IV EE&C Plan and Programs
Implementation of Programs
Compliance with Statutory and Regulatory Requirements**

1 **I. INTRODUCTION AND BACKGROUND**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Edward C. Miller, and my business address is 800 Cabin Hill Drive,
4 Greensburg, PA 15601.

5
6 **Q. MR. MILLER, BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

7 A. I am employed by FirstEnergy Service Company, which is a direct subsidiary of
8 FirstEnergy Corp. (“FirstEnergy”), as Manager, Compliance and Development in the
9 Energy Efficiency Department. I report to the Director, Energy Efficiency Compliance
10 and Reporting. I am responsible for compliance and development activities related to
11 energy efficiency and conservation (“EE&C”) programs for the FirstEnergy utilities in
12 Ohio, Maryland, New Jersey, Pennsylvania, and West Virginia. This primarily involves
13 the development of programs and filings to meet the FirstEnergy utilities’ EE&C and/or
14 peak demand reduction (“PDR”) requirements and obligations.

15
16 **Q. WHAT IS YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND?**

17 A. I hold a Bachelor of Science degree in Electrical Engineering from the University of
18 Pittsburgh. For over seventeen years, I was employed by Allegheny Energy Service
19 Corporation, the service company for Allegheny Energy Inc. (“Allegheny”), which merged
20 in 2011 with FirstEnergy. While with Allegheny, I held various engineering, customer
21 service, and management positions in Customer Services, Sales & Marketing, Customer
22 Management, and Energy Efficiency. After FirstEnergy and Allegheny merged in 2011, I

1 was assigned my current position as Manager, Compliance and Development in
2 FirstEnergy's Energy Efficiency Department.

3
4 **Q. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE RELEVANT TO**
5 **THE TESTIMONY YOU ARE NOW GIVING.**

6 A. Between 2009 and the FirstEnergy-Allegheny merger in 2011, I was involved in the
7 development of EE&C/PDR programs and filings for the utilities formerly owned by
8 Allegheny in Pennsylvania, Maryland, and West Virginia. Since completion of the merger,
9 I have been involved in the same activities for the FirstEnergy utilities in West Virginia,
10 Maryland, New Jersey, Ohio, and Pennsylvania. I was significantly involved in the
11 development of the Phase II and Phase III EE&C Plans of Metropolitan Edison Company
12 ("Met-Ed"), Pennsylvania Electric Company ("Penelec"), Pennsylvania Power Company
13 ("Penn Power"), and West Penn Power Company ("West Penn") (collectively, the
14 "Companies") that were approved by the Pennsylvania Public Utility Commission
15 ("Commission").¹ I have the same responsibilities related to the EE&C Plan being
16 proposed in this proceeding ("Phase IV Plan" or "Proposed Plan"). In fulfilling my
17 responsibilities, I collaborate with energy efficiency consultants and vendors who assist
18 the Companies with program design, implementation and the evaluation, measurement,
19 and verification ("EM&V") of programs.

20
21 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING?**

¹ Please see footnote 1 in Companies' Witness Turosky's direct testimony (Met-Ed/Penelec/Penn Power/West Penn Statement No. 1) for a list of the docket numbers associated with those Phase II and Phase III EE&C Plans.

1 A. I am testifying on behalf of the Companies. Unless otherwise stated, my testimony equally
2 applies to all four Companies. Further, rather than reiterating what is included in the
3 Companies' Proposed Plan in my testimony, any references to sections of the Plan are
4 incorporated as if fully rewritten herein.

5
6 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

7 A. The purpose of my testimony is to: (i) summarize the additional EE&C and PDR targets
8 set for the Companies by the Commission's Phase IV Implementation Order² and the
9 spending limitations for each Company under Act 129³; (ii) summarize and sponsor the
10 Proposed Plan; (iii) describe the development of the Proposed Plan; (iv) describe how the
11 Companies plan to implement the programs included in the Proposed Plan; and (v) analyze
12 whether the Proposed Plan complies with all statutory and regulatory requirements,
13 including the Commission's Phase IV Implementation Order and its 2021 Total Resource
14 Cost ("TRC") Test Order.⁴

15
16 **Q. WHAT WAS YOUR ROLE IN THE DEVELOPMENT OF THE PHASE IV PLAN?**

17 A. My role in the development of the Proposed Plan was to manage the creation of the Phase
18 IV EE&C programs and budgets; evaluate the cost-effectiveness of the Proposed Plan

² *Energy Efficiency and Conservation Program*, Docket No. M-2020-3015228 (Implementation Order entered June 18, 2020) ("Phase IV Implementation Order").

³ Act 129 of 2008 was signed into law on October 15, 2008 and became effective on November 14, 2008. Among other things, the Act created an EE&C Program, codified in the Pennsylvania Public Utility Code at Sections 2806.1 and 2806.2, 66 Pa.C.S. §§ 2806.1 and 2806.2.

⁴ *2021 PA Total Resource Cost (TRC) Test*, Docket No. M-2019-3006868 (Order entered December 19, 2019) ("2021 TRC Test Order").

1 consistent with the Commission’s requirements; and optimize the Plan’s components to
2 achieve the goals of Act 129 given the regulatory requirements, spending limits, and
3 targeted reductions.

4
5 **Q. WAS THE PROPOSED PLAN DEVELOPED UNDER YOUR DIRECTION AND**
6 **CONTROL?**

7 A. Yes. The Proposed Plan was developed under my direction. To guide the development of
8 the Plan, I primarily reviewed the requirements of the Commission’s Phase IV
9 Implementation Order, the Commission’s Order regarding the 2021 Technical Reference
10 Manual (“TRM”),⁵ and the 2021 TRC Test Order.

11
12 **II. PHASE IV EE&C TARGETS AND SPENDING LIMITATIONS**

13 **Q. DID THE COMMISSION ADOPT ADDITIONAL INCREMENTAL EE&C AND**
14 **PDR TARGETS FOR THE COMPANIES?**

15 A. Yes. The Commission adopted new energy savings targets for each of the Companies. The
16 Commission also established coincident peak demand reduction targets for each of the
17 Companies. The targets are set forth in the Commission’s Phase IV Implementation Order
18 for the period June 1, 2021 through May 31, 2026 (“Phase IV Period”).

⁵ See *Implementation of the Alternative Energy Portfolio Standards Act of 2004: Standards for the Participation of Demand Side Management Resources – Technical Reference Manual 2021 Update*, Docket No. M-2019-3006867 (Order entered August 8, 2019); *Errata to the 2021 Technical Reference Manual (TRM)*, Docket No. M-2019-3006867 (Secretarial Letter issued September 24, 2020); see also *Implementation of the Alternative Energy Portfolio Standards Act of 2004: Standards for the Participation of Demand Side Management Resources – Technical Reference Manual 2021 Update*, Docket No. M-2019-3006867 (Amendment Tentative Order entered Oct. 29, 2020) (proposing certain amendments to the 2021 TRM, which remain pending before the Commission as of the submission of this testimony).

1
 2 **Q. WHAT ARE THE OVERALL MEGAWATT-HOUR (“MWH”) TARGETS THAT**
 3 **THE COMPANIES MUST ACHIEVE PURSUANT TO ACT 129 AND THE**
 4 **COMMISSION’S PHASE IV IMPLEMENTATION ORDER?**

5 A. The following table shows the MWh targets, which represent the total incremental savings
 6 required by each of the Companies for the Phase IV Period.⁶

EDC Name	Phase IV Target MWh
Met-Ed	463,215
Penelec	437,676
Penn Power	128,909
West Penn Power	504,951
<i>Total</i>	<i>1,534,751</i>

7
 8 **Q. WHAT ARE THE MEGAWATT (“MW”) REDUCTION TARGETS FOR THE**
 9 **COMPANIES AS ESTABLISHED BY THE COMMISSION IN THE PHASE IV**
 10 **IMPLEMENTATION ORDER?**

11 A. The following table shows the MW targets, which represents the required level of
 12 coincident peak MW reductions that are to be met with energy efficiency measures by each
 13 of the Companies for the Phase IV Period.⁷

EDC Name	Phase IV Target MW
Met-Ed	76
Penelec	80
Penn Power	20

⁶ Phase IV Implementation Order at 8.

⁷ *Id.*

Met-Ed/Penelec/Penn Power/West Penn Statement No. 2

West Penn Power	86
Total	262

1

2 **Q. WHAT ARE THE ANNUALIZED SPENDING LIMITS FOR THE**
3 **DEVELOPMENT AND IMPLEMENTATION OF THE PHASE IV PLAN?**

4 A. Act 129 specifies that “[t]he total cost of any plan required under this section shall not
5 exceed 2% of the electric distribution company’s total annual revenue as of December 31,
6 2006.”⁸ Per Act 129, the 5-year spending limit as established by the Commission⁹ for each
7 of the Companies based on this requirement is as follows:

EDC Name	Phase IV Budget Limit
Met-Ed	\$124,334,470
Penelec	\$114,873,710
Penn Power	\$33,298,945
West Penn Power	\$117,813,010
Total	\$390,320,135

8

9 **Q. HOW MUCH HAS BEEN BUDGETED FOR THE COMPANIES’ PROGRAMS?**

10 A. The proposed budgets for each program included in the Companies’ Phase IV Plan can be
11 found in Appendix B, PUC Table 9. Total portfolio budgets for each Company are also
12 summarized in Appendix B, PUC Tables 4 and 12, and Appendix C, Table C-1 of the Phase
13 IV Plan.

⁸ 66 Pa.C.S. § 2806.1(m).

⁹ Phase IV Implementation Order at 120.

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III. DEVELOPMENT OF THE PROPOSED PLAN

Q. PLEASE DESCRIBE GENERALLY HOW THE COMPANIES’ PHASE IV PLAN WAS DEVELOPED.

A. Sections 1.2 and 3.1 of the Phase IV Plan describe how the FirstEnergy Plan development team (“EE&C Team”) designed the Companies’ Phase IV Plan. Generally, the EE&C Team reviewed the existing programs and measures in the Companies’ Phase III Plans to assess implementation and performance to date. Programs and measures offered by other FirstEnergy affiliate utilities and non-FirstEnergy utilities were reviewed to establish a universe of programs and measures for consideration. The EE&C Team also reviewed the Pennsylvania Market Potential Study (“MPS”),¹⁰ the 2021 TRM, and other industry sources and consulted with its implementation team, implementation vendors, and the Companies’ energy efficiency consultant and independent EM&V contractor, all in an effort to identify additional opportunities. The EE&C Team considered the program and measure opportunities and completed initial modeling, taking into account: (i) implementation experience and actual results through existing programs; (ii) program benefit and cost assumptions; (iii) input from stakeholders, consultants and vendors; (iv) the 2021 TRM; (v) the MPS; and (vi) other industry sources. Based on this analysis and evaluation, the EE&C Team selected the measures to be included in the Phase IV Plan, estimated participation levels and corresponding program and measure savings results, and

¹⁰ Pennsylvania Act 129 – Phase IV Energy Efficiency and Peak Demand Reduction Market Potential Study Report (Feb. 28, 2020), released via Secretarial Letter, Docket No. M-2020-3015229, (March 2, 2020) (“EE Potential Study”).

1 developed program budgets within the budget constraints established under Act 129's
2 statutory 2% spending cap.

3
4 **Q. DID THE COMPANIES DISCUSS DEVELOPMENT OF THE PHASE IV PLAN**
5 **WITH INTERESTED STAKEHOLDERS?**

6 A. Yes. During the development of the Phase IV Plan, the Companies sought and obtained
7 feedback on the proposed EE&C programs from stakeholders through a variety of methods.
8 Stakeholder meetings discussing the Plan's development and program design were held in
9 December 2019, May 2020, and October 2020. At the December 2019 stakeholder
10 meeting, the Companies communicated that they had started to develop their Phase IV
11 Plan, stated that they were beginning to research program and measure opportunities, and
12 solicited input from stakeholders. At the May 2020 stakeholder meeting, the Companies
13 provided an update on the development of the Phase IV Plan, presented a concept plan for
14 Phase IV including a program and subprogram portfolio, and discussed opportunities that
15 were under consideration. At the October 2020 stakeholder meeting, the Companies
16 provided an update on the development of the Phase IV Plan, presented a near final plan
17 including the program and subprogram portfolio, and discussed the key changes to each
18 subprogram. The Companies also participated in numerous meetings with interested
19 parties, including their current and potential Conservation Service Providers ("CSPs") and
20 vendors. The Companies further involved stakeholders and considered stakeholder input
21 on an on-going basis through outreach to both program allies and other interested parties
22 to inform program design and implementation – a practice the Companies intend to
23 continue during the Phase IV Period.

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IV. SUMMARY OF THE COMPANIES’ PHASE IV EE&C PLAN AND PROGRAMS

Q. PLEASE PROVIDE A BRIEF OVERVIEW OF THE PHASE IV PLAN.

A. The Companies’ Phase IV Plan includes a portfolio of energy efficiency programs, subprograms, and measures that are designed to achieve the specific consumption and peak demand reduction targets during the Phase IV Period as established by the Commission in its Phase IV Implementation Order. Like the Companies’ prior EE&C Plans, the proposed Phase IV Plan includes a portfolio of EE&C programs targeted to a variety of customer segments, including: (i) residential (with programs specific to the low-income sector); (ii) small commercial and industrial (“C&I”), including government, non-profit, and institutional (“GNI”) customers; and (iii) large C&I, also including GNI customers. The Phase IV Plan is generally an extension and evolution of the programs and measures included in the Companies’ Phase III Plans, with modifications to the programs, the elimination of subprograms and measures, and the addition of new subprograms and measures. Also, like the Phase III Plans, the Phase IV Plan continues the use of incentive level ranges. Under this approach, the Companies have the ability to adjust rebate levels within the range as market conditions warrant, provided that: (i) these adjustments do not increase program costs beyond approved budgets; and (ii) the Companies discuss potential changes with stakeholders. Based on these ranges, the Companies can adjust incentives for measures either to avoid overpaying for measures, or, if it is determined that an incentive is not sufficient, to increase incentives within the approved range to enhance market response without missing potential opportunities while waiting for resolution

1 through the regulatory process. This allows the Companies to quickly react to changing
2 market conditions, thus optimizing their efforts to achieve their goals.

3
4 **Q. WHY DO THE COMPANIES BELIEVE THAT A STRATEGY TO CONTINUE A**
5 **NUMBER OF THE PHASE III PROGRAMS INTO PHASE IV WILL BE**
6 **SUCCESSFUL IN MEETING THE EE&C REDUCTION TARGETS?**

7 A. The Phase III Plans are a comprehensive portfolio of proven and successful EE&C
8 programs that created a solid foundation on which to build the Phase IV Plan. Continuing
9 the Phase III programs not only allows the Companies to build upon the momentum gained
10 during the Phase III Period through program implementation, customer education, and
11 marketing efforts, but it also allows them to leverage the experience as well as the
12 implementation practices, procedures, and systems that were put in place to support the
13 operation of the programs. Leveraging the Phase III programs also avoids the potential for
14 market confusion and disruption that could result from unnecessarily changing program
15 portfolios between phases.

16
17 **Q. YOU INDICATED THAT THERE WERE SLIGHT MODIFICATIONS TO THE**
18 **PHASE III PROGRAMS AND CERTAIN MEASURES WERE EITHER**
19 **ELIMINATED FROM OR ADDED TO THE PHASE IV PLAN. WOULD YOU**
20 **PLEASE SUMMARIZE THE DIFFERENCES BETWEEN THE PHASE III AND**
21 **PHASE IV PLANS?**

22 A. From a practical perspective, the significant changes between the Phase III and Phase IV
23 Plans are the removal of dispatchable demand response programs, the removal of the

1 residential lighting subprogram and measures, and the expansion of the Phase IV program
2 offerings. A comparison between the Phase III and Phase IV programs is included in
3 Tables 1, 7, 9 and 11 of the Phase IV Plan. The program measures that have been retained
4 or added for each program for each customer segment can be found in Tables 8, 10 and 12
5 of the Phase IV Plan.

6
7 **Q. WHY WERE CERTAIN PHASE III MEASURES REMOVED FROM THE PHASE**
8 **IV PLAN?**

9 A. The dispatchable demand response measures were removed from the Phase IV Plan due to
10 the change to coincident peak demand reduction targets in Phase IV that are required to be
11 met from energy efficiency measures. The residential lighting subprograms and measures
12 were removed due to the TRM adopting federal standards that significantly reduce the
13 savings opportunity and the projections for the measures were not sufficient to justify the
14 expense of continuing the subprograms in Phase IV.

15
16 **Q. HOW MANY MEASURES ARE INCLUDED IN THE PHASE IV PLAN?**

17 A. There are approximately 185 measures included in Phase IV Plan. Appendix B, PUC Table
18 7 provides the eligible measures for each of the Phase IV programs.

19
20 **Q. WHAT RESIDENTIAL PROGRAMS ARE THE COMPANIES PROPOSING FOR**
21 **PHASE IV?**

22 A. The Companies are proposing the following programs for residential customers: (i) Energy
23 Efficient Products Program; and (ii) Energy Efficient Homes Program. These residential

1 programs are summarized in Tables 7 and 8 and are fully described in Section 3.2 of the
2 Phase IV Plan. The residential programs are designed to address both educational and
3 initial cost barriers and to tap a variety of delivery channels and vendors to support
4 customer engagement, education, and participation. The residential programs include
5 direct or targeted programs that engage customers and serve as a portal for other program
6 offerings because they serve a dual purpose of providing customers with energy efficiency
7 education as well as information regarding other program services and opportunities upon
8 which they can act. The residential programs incorporate strategies to change behaviors,
9 and they include incentives to address the initial cost barrier to promote the participation
10 of all residential customers. The programs provide opportunities for prescriptive
11 equipment and direct install, so that customers who are unable or unwilling to undertake
12 whole home/comprehensive solutions are still able to increase efficiency. The programs
13 also provide opportunities for customers interested in whole home/comprehensive
14 solutions, which encourage customers to consider a holistic approach to energy efficiency.
15

16 **Q. DOES THE PHASE IV PLAN INCLUDE PROGRAMS THAT ARE DESIGNED**
17 **FOR RESIDENTIAL LOW-INCOME CUSTOMERS?**

18 A. Yes. The Companies are proposing a Low-Income Energy Efficiency Program under
19 which basic, enhanced, and comprehensive services and education will be offered to give
20 low-income households more control over their energy spending. The Low-Income
21 Energy Efficiency Program is also designed with a progression from general to specific in
22 an effort to make EE&C programs and services available to all low-income customers. The
23 Companies will provide home energy efficiency kits, school education, and customized

1 home energy reports providing low-income customers with basic energy savings measures
2 and/or energy efficiency education, recommendations, and information regarding other
3 services upon which they can act. Additional low-income customer program offerings
4 (e.g., appliance rebate and turn in, multifamily) will also be targeted to help identify new
5 low-income customers, achieve additional energy savings opportunities, or promote energy
6 efficiency in multifamily or other low-income homes. The Companies also plan to achieve
7 additional new and incremental electric energy savings through the Weatherization
8 subprogram as part of the delivery of the Companies' existing comprehensive Low-Income
9 Usage Reduction Program ("LIURP"). This aspect of the Phase IV Plan enhances and
10 accelerates the deployment of services to LIURP-eligible households by providing
11 additional measures and services to achieve deeper savings in each visit or through serving
12 additional homes. The Low-Income Energy Efficiency Program also includes a New
13 Homes subprogram, where the Companies will promote the construction of new energy
14 efficient housing for income-qualified customers. Details surrounding the proposed Low-
15 Income Energy Efficiency Program and each of the low-income subprograms can be found
16 in Section 3.2 of the Phase IV Plan.

17
18 **Q. ARE THE LOW-INCOME PROGRAMS SPECIFICALLY TARGETED TO LOW-**
19 **INCOME CUSTOMERS?**

20 A. Yes. In accordance with the Commission's Phase IV Implementation Order,¹¹ savings
21 counted towards the low-income target may only come from specific low-income programs

¹¹ See Phase IV Implementation Order at 28.

Met-Ed/Penelec/Penn Power/West Penn Statement No. 2

1 or low-income verified participants in multi-family housing programs. The Companies
2 have designed the Low-Income Energy Efficiency Program and each of the low-income
3 subprograms to meet this requirement. The Energy Efficiency Kits and Behavioral
4 subprograms will continue to be specifically targeted to known low-income customers as
5 they were under the Phase III Plans. The School Education subprogram will specifically
6 target schools that have a higher percentage of low-income families as identified through
7 the assisted lunch program in an effort to reach low-income families and make them more
8 aware of potential energy savings opportunities. Under the Appliances subprogram, the
9 Companies will provide enhanced incentives in addition to targeting low-income
10 customers through specific marketing and outreach activities. Similar to the Phase III
11 Plans, the Weatherization subprogram leverages the considerable expertise and existing
12 infrastructure of LIURP contractors consisting of both Community Based Organizations
13 (“CBOs”) and private contractors, who specifically target low-income customers for
14 participation. The Multifamily subprogram was new for Phase III and continues for Phase
15 IV. It specifically targets multifamily buildings and is closely coordinated with the
16 Weatherization subprogram to avoid duplicating efforts or services targeted to qualified
17 low-income customers. And under the Low-Income New Homes subprogram, the
18 Company will work with Pennsylvania Housing Finance Authority (“PHFA”) and other
19 entities to provide incentives for the construction of new energy efficient housing for
20 qualified low-income customers.

21

1 **Q. DOES THE COMPANIES' PHASE IV PLAN INCLUDE SPECIFIC ENERGY**
2 **EFFICIENCY MEASURES FOR HOUSEHOLDS AT OR BELOW 150% OF THE**
3 **FEDERAL POVERTY INCOME GUIDELINES?**

4 A. Yes. Act 129 requires that each EE&C Plan include specific energy efficiency measures
5 for households at or below 150% of the federal poverty income guidelines in proportion to
6 that sector's share of the total energy usage in the EDC's service territory.¹² The
7 Companies meet this requirement through the measures provided by the Low-Income
8 Energy Efficiency Program. As explained in more detail in Section 9.1.3 of the Phase IV
9 Plan, the Companies' Plan exceeds this requirement.

10

11 **Q. HOW WILL THE COMPANIES TRACK THE RESULTS FROM THE LOW-**
12 **INCOME SPECIFIC PROGRAMS?**

13 A. The Companies have processes and procedures in place that successfully tracked the results
14 from the low-income specific programs for the prior EE&C Plans. The Companies will
15 continue these processes and procedures and will specifically track the participation in the
16 Low-Income Energy Efficiency Program consistent with how they track participation in
17 the other non-low-income programs. Section 5 of the Phase IV Plan describes the
18 Companies' tracking and reporting system in more detail.

19

¹² 66 Pa.C.S. § 2806.1(b)(1)(i)(G).

1 **Q. SOME OF THE SUBPROGRAMS BEING OFFERED TO THE RESIDENTIAL**
2 **CUSTOMERS ARE ALSO BEING OFFERED TO THE LOW-INCOME**
3 **CUSTOMERS. ARE THERE ANY DISTINCTIONS BETWEEN THE TWO?**

4 A. Yes. The Companies will develop marketing materials and complete outreach activities
5 that are specifically designed to target low-income customers with education and
6 awareness and to encourage these customers' participation in the low-income program
7 offerings. The Companies also plan to provide an enhanced rebate to qualified low-income
8 customers for certain measures, which would offset a greater portion of the incremental
9 cost for participation.

10

11 **Q. WOULD YOU PLEASE DESCRIBE THE OUTREACH ACTIVITIES THAT WILL**
12 **BE IMPLEMENTED TO TARGET THE LOW-INCOME SECTOR?**

13 A. The Companies have developed extensive outreach activities during prior phases of the
14 EE&C Program and plan to continue these activities for Phase IV. These outreach
15 activities may include radio ads, television ads, websites, Twitter, Facebook, bill inserts,
16 bus signs, letters, calling campaigns, post-cards, newspaper ads/articles, posters, food
17 pantry events, and the Commission's "Be Utility Wise" events within the Companies'
18 service territories. And as discussed earlier, other outreach activities that targets the low-
19 income sector will be completed by the CBOs and private contractors who provide the
20 Weatherization subprogram services, specifically targeting multifamily buildings with
21 low-income customers, and working with PHFA and other entities to target the
22 construction of new energy efficient housing for low-income customers. The Companies
23 have routinely discussed these outreach activities as well as their marketing materials in

1 stakeholder meetings throughout Phase III and plan to continue this practice in Phase IV.
2 Further, the Companies will continue to look for new outreach activities to assist with
3 identifying and targeting qualified low-income customers for the low-income subprograms
4 and will seek feedback from stakeholders on these activities, as well as the Companies
5 marketing materials, as necessary.
6

7 **Q. WHAT PROGRAMS ARE THE COMPANIES PROPOSING FOR SMALL AND**
8 **LARGE COMMERCIAL & INDUSTRIAL CUSTOMERS IN THE PHASE IV**
9 **PLAN?**

10 A. The Companies are proposing the following programs for the small and large C&I
11 customers: (i) C&I Energy Solutions for Business Program – Small; and (ii) C&I Energy
12 Solutions for Business Program – Large. The C&I Energy Solutions for Business Program
13 – Small is summarized in Tables 9 and 10 and fully described in Section 3.3 of the Phase
14 IV Plan. The C&I Energy Solutions for Business Program – Large is summarized in Tables
15 11 and 12 and is fully described in Section 3.4 of the Phase IV Plan. The Commercial and
16 Industrial Programs are designed to provide customer engagement and education,
17 incorporate energy controls and strategies to change behaviors, include incentives to
18 address the initial cost barrier, and tap a variety of delivery channels and vendors that
19 promote the participation of all customers. Commercial businesses and industrial customers
20 are also addressed through programs that provide a variety of opportunities, including
21 prescriptive rebates, custom measures, building tune-up, and whole
22 building/comprehensive solutions. The programs include specific opportunities that ensure
23 access for small customers and provide opportunities for single or multiple prescriptive

1 and/or custom measures, so that customers who are unable or unwilling to undertake whole
2 building/comprehensive solutions are still able to increase efficiency. And, the programs
3 include opportunities that encourage customers to consider a holistic approach to Energy
4 Efficiency for customers interested and able to participate in whole
5 building/comprehensive solutions.

6
7 **Q. HOW DO THE COMPANIES' PHASE IV PROGRAMS SERVE GOVERNMENT,**
8 **NON-PROFIT, AND INSTITUTIONAL CUSTOMERS?**

9 A. The Phase IV Plan will target and provide program services for GNI customers through the
10 C&I Energy Solutions for Business Programs, Small and Large. The C&I Energy
11 Solutions for Business, Small and Large programs include subprograms and measures
12 aimed at serving GNI customers, including direct install, single and multiple prescriptive
13 measures, custom projects, and Energy Management services. As in Phase III, special
14 efforts will be made to target the GNI customers for participation in these programs.
15 Marketing and outreach will specifically target GNI entities within the Companies' service
16 territories depending upon the subprogram offering. These efforts will include the
17 leveraging of existing Companies' relationships with GNI customers and employing
18 experienced vendors who have expertise in working with GNI accounts.

19
20 **V. IMPLEMENTATION OF PROGRAMS**

21 **Q. PLEASE DESCRIBE THE COMPANIES' APPROACH TO IMPLEMENTING**
22 **THE PHASE IV PLAN.**

1 A. The Companies' implementation strategy will rely on CSPs, program allies, and other
2 entities engaged in energy-efficiency to promote, deliver, and support effective
3 implementation of the EE&C programs. Some CSPs will operate as turnkey program
4 delivery contractors, while others will provide specific functions across multiple programs.
5 The Companies' implementation strategy is more fully discussed in Sections 1.4, 1.7 and
6 4 of the Phase IV Plan. Further details on the Companies' selection of CSPs and their RFP
7 process are set forth in Companies' Witness Turosky's direct testimony (Met-
8 Ed/Penelec/Penn Power/West Penn Statement No. 1).

9
10 **VI. COMPLIANCE WITH STATUTORY AND REGULATORY REQUIREMENTS**

11 **Q. ARE ANY OF THE COMPANIES CARRYING OVER ANY EXCESS SAVINGS**
12 **FROM THE PHASE III JUNE 1, 2016 THROUGH MAY 31, 2021 PERIOD**
13 **(“PHASE III PERIOD”)?**

14 A. Yes. The Companies will be carrying over excess MWh savings that are projected to be
15 achieved during the Phase III Period into Phase IV. The carryover savings into Phase IV
16 will be reported with the Companies' Final Annual Reports for Program Year (“PY”) 12.

17
18 **Q. IS THE COMPANIES' PHASE IV PLAN DESIGNED TO MEET THE ENERGY**
19 **AND PEAK DEMAND REDUCTION TARGETS IDENTIFIED IN THE**
20 **COMMISSION'S PHASE IV IMPLEMENTATION ORDER?**

21 A. Yes, the Proposed Plan is designed to meet the energy and peak demand reduction targets,
22 including the low-income carve out, as established in the Commission's Phase IV
23 Implementation Order. Appendix B, PUC Tables 2 and 3 of the Phase IV Plan shows the

1 projected MWh and MW savings respectively for each of the Companies. Further, as
2 explained in Section 9.1.3 of the Phase IV Plan, the Plan also includes specific energy
3 efficiency measures for households at or below 150% of the federal poverty income
4 guidelines in proportion to that sector's share of the total energy usage in the respective
5 Company's service territory, as required by 66 Pa.C.S. § 2806.1(b)(1)(i)(G).

6
7 **Q. IS THE COMPANIES' PHASE IV PLAN DESIGNED TO ACHIEVE AT LEAST**
8 **15% OF THE CONSUMPTION REDUCTION TARGETS IN EACH PROGRAM**
9 **YEAR?**

10 A. Yes. The aforementioned Appendix B, Tables 2 and 3 also provide the projected energy
11 and peak demand savings for each program year, as a percentage of each Company's
12 targets, and illustrate that the Phase IV Plan is designed to meet at least 15% of the energy
13 and peak demand reduction targets each year.

14
15 **Q. DOES THE COMPANIES' PROPOSED PLAN ACHIEVE THE OVERALL TRC**
16 **COST-BENEFIT THRESHOLD?**

17 A. Yes. Appendix B, PUC Table 1 of the Phase IV Plan shows the projected TRC results on
18 a portfolio basis. The successful implementation of the Companies' Phase IV Plan is
19 projected to be cost-effective at the portfolio level under the PA TRC test, with each
20 Company having benefit-cost ratios greater than 1.0. Specifically, Met-Ed has a TRC ratio
21 of 1.5, Penelec has a TRC ratio of 1.5, Penn Power has a TRC ratio of 1.3, and West Penn
22 has a TRC ratio of 1.3. Additional details are provided in Appendix B, PUC Tables 1 and
23 13 for each Company.

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Q. HOW WERE THE TRC RESULTS CALCULATED?

A. Each of the TRC values was calculated consistent with the methodology prescribed by the Commission in the 2021 TRC Test Order. Section 8.0 of the Proposed Plan provides more detail on the cost effectiveness evaluation and methodology.

Q. DOES THE COMPANIES' PHASE IV PLAN INCLUDE BOTH RESIDENTIAL AND NON-RESIDENTIAL COMPREHENSIVE PROGRAMS?

A. Yes. As more fully discussed in Section 3.1.4 of the Phase IV Plan, the Companies' Plan includes comprehensive programs and measures for both residential and non-residential customers. In general, the Phase IV Plan incorporates both near-term and longer-term energy saving opportunities for customers, including single and prescriptive measures, multiple prescriptive and custom measures, direct install, and comprehensive whole home/whole building solutions. More specifically, the Companies offer comprehensive measures to residential customers including whole house treatments through the Energy Efficient Homes Program and the Low-Income Energy Efficiency Program. The Energy Efficient Homes Program includes home audits with additional incentives for comprehensive home retrofits as well as for efficient new home construction. The Low-Income Energy Efficiency Program includes both a Weatherization subprogram and a New Construction subprogram, which also targets comprehensive home retrofits as well as efficient new home construction. Similarly, the Companies offer comprehensive measures to the non-residential sector through the Custom and Energy Management subprograms in the C&I Energy Solutions for Business, Small and Large Programs. The Custom

1 subprogram provides incentives for custom building improvements, process
2 improvements, and efficient new construction. The Energy Management subprogram
3 provides a holistic approach to improving the overall operation and energy performance of
4 buildings and building systems by retrofitting, maintaining, adjusting, and optimizing the
5 systems within the building and the implementation of complementary energy savings
6 measures. Collectively, the proposed programs and subprograms across all sectors
7 promote and support comprehensive whole home/whole building/comprehensive
8 solutions, targeting deeper savings and comprehensive retrofits.

9
10 **Q. DOES THE COMPANIES' PHASE IV PLAN INCLUDE A VARIETY OF**
11 **MEASURES THAT ARE PROVIDED EQUITABLY TO ALL CUSTOMER**
12 **CLASSES?**

13 A. Yes. Based on the programs and measures selected and included in the Companies' Phase
14 IV Plan, as listed in Tables 8, 10, and 12, there is at least one energy efficiency program
15 and a broad portfolio of subprograms and measures that will be provided to every customer
16 class.

17
18 **Q. DOES THE PROPOSED PLAN COMPLY WITH ALL STATUTORY AND**
19 **REGULATORY REQUIREMENTS?**

20 A. Yes. The Phase IV Plan: (i) is designed, based upon the Commission's acquisition cost
21 assumptions, to achieve the Phase IV energy and peak demand reduction targets as
22 established in Act 129 and the Commission's Phase IV Implementation Order; (ii) is
23 designed to achieve the low-income carve out as established in the Commission's Phase

Met-Ed/Penelec/Penn Power/West Penn Statement No. 2

1 IV Implementation Order; (iii) is designed to achieve at least 15% of the energy and peak
2 demand reduction targets during each year of the Phase IV Period; (iv) includes at least
3 one program for each customer class; (v) includes both residential and non-residential
4 comprehensive programs; (vi) passes the TRC test on an overall portfolio basis for each
5 Company; and (vii) includes a budget no greater than the 2% statutory spending cap.

6

7 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

8 A. Yes, it does. However, I reserve the right to supplement my testimony.

Met-Ed/Penelec/Penn Power/West Penn Statement No. 3

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

METROPOLITAN EDISON COMPANY
Docket No. M-2020-3020820

PENNSYLVANIA ELECTRIC COMPANY
Docket No. M-2020-3020821

PENNSYLVANIA POWER COMPANY
Docket No. M-2020-3020822

WEST PENN POWER COMPANY
Docket No. M-2020-3020823

PHASE IV ENERGY EFFICIENCY AND CONSERVATION PLAN

**Prepared
Direct
Testimony
of
Anthony J. Woytko**

LIST OF TOPICS ADDRESSED

**Phase III Final Cost Collection
Phase IV Cost Recovery Mechanism and Initial Rates
Program Cost Reconciliation Process**

1 **I. INTRODUCTION AND BACKGROUND**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Anthony J Woytko. My business address is 2800 Pottsville Pike, Reading,
4 Pennsylvania, 19605.

5
6 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

7 A. I am employed by FirstEnergy Service Company as an Analyst in Rates and Regulatory
8 Affairs - Pennsylvania.

9
10 **Q. WHAT ARE YOUR RESPONSIBILITIES AS AN ANALYST IN PENNSYLVANIA**
11 **RATES AND REGULATORY AFFAIRS?**

12 A. Generally, the Pennsylvania Rates and Regulatory Affairs Department provides regulatory
13 support for each of FirstEnergy Corp.'s ("FirstEnergy") wholly-owned Pennsylvania
14 operating companies, which are Metropolitan Edison Company ("Met-Ed"), Pennsylvania
15 Electric Company ("Penelec"), Pennsylvania Power Company ("Penn Power"), and West
16 Penn Power Company ("West Penn") (collectively, the "Companies"). I support the
17 development, preparation, and presentation of the Companies' retail electric rates and
18 related rules and regulations, ensuring uniform administration and interpretation in all their
19 rate-related matters.

20
21 **Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?**

22 A. I obtained a bachelor's degree in Business Administration from Albright College. My
23 work experience is more fully described in Appendix A attached to this testimony.

24

1 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?**

2 A. I am testifying on behalf of the Companies. My testimony applies to all of the Companies,
3 unless otherwise stated. Further, rather than reiterating what is included in the Companies'
4 Phase IV Energy Efficiency and Conservation Plan ("Phase IV Plan") in my testimony,
5 any references to sections of the Plan are incorporated as if fully rewritten herein.

6
7 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

8 A. The purpose of my testimony is to explain the Companies' proposed cost recovery
9 mechanisms that will be used to recover the costs incurred by the Companies during the
10 planning and implementation of their Phase IV Plan, which is required by Act 129¹ and the
11 Pennsylvania Public Utility Commission's ("Commission") Phase IV Implementation
12 Order.² I will also explain how the proposed rates estimated for the first year of the Phase
13 IV Plan were determined and how the Companies will recover final costs incurred under
14 their Energy Efficiency and Conservation ("EE&C") Plans that are currently in effect
15 during the Phase III Period³ of the Commission's EE&C Program ("Phase III Plans").⁴

16
17 **Q. HAVE YOU PREPARED EXHIBITS TO ACCOMPANY YOUR TESTIMONY?**

18 A. Yes. I have prepared the following Met-Ed/Penelec/Penn Power/West Penn Exhibits,
19 which I will explain in detail later in my testimony:

¹ Act 129 of 2008, 66 Pa.C.S. §§ 2806.1-2806.2 ("Act 129").

² *Energy Efficiency and Conservation Program*, Docket No. M-2020-3015228 (Implementation Order entered June 18, 2020) ("Phase IV Implementation Order").

³ Phase III of the Commission's EE&C Program is in effect for the five-year period starting on June 1, 2016 and ending on May 31, 2021 ("Phase III Period").

⁴ Phase III EE&C Plans were required by Act 129 and the Commission's Implementation Order issued at Docket No. M-2014-2424864.

- 1 AJW-1: Met-Ed Phase IV EE&C-C Rider;
2 AJW-2: Penelec Phase IV EE&C-C Rider;
3 AJW-3: Penn Power Phase IV EE&C-C Rider;
4 AJW-4: West Penn Phase IV EE&C-C Rider;
5 AJW-5: West Penn Tariff 38 Phase IV EE&C-C Rider; and
6 AJW-6: Spreadsheet demonstrating how the rates included in each of the riders
7 were determined.
8

9 **II. FINAL RECONCILIATION OF PHASE III RIDER COSTS**

10 **Q. HOW ARE THE COMPANIES RECOVERING COSTS INCURRED UNDER**
11 **THEIR RESPECTIVE PHASE III PLANS?**

12 A. The costs associated with the development and implementation of the Phase III Plans are
13 currently being recovered through each Company's Phase III Energy Efficiency and
14 Conservation Charge Rider ("EE&C-C Rider"). These recovery mechanisms were
15 approved by the Commission in the Companies' Phase III Plan proceedings at Docket Nos.
16 M-2015-2514767 (Met-Ed), M-2015-2514768 (Penelec), M-2015-2514769 (Penn Power),
17 and M-2015-2514772 (West Penn).
18

19 **Q. DO THE COMPANIES PLAN TO MAINTAIN THE EXISTING PHASE III EE&C-**
20 **C RIDERS BEYOND THE END OF THE PHASE III PERIOD?**

21 A. No, the Companies plan to terminate the Phase III EE&C-C Riders at the end of the Phase
22 III Period, which ends on May 31, 2021. Notwithstanding, a process must be put in place
23 to allow for the full recovery of Phase III costs. Certain Phase III costs will either not be

1 known by May 31, 2021 or will continue to accrue after Phase III comes to an end;
2 therefore, the Companies are proposing that an additional adjustment be included in their
3 Phase IV recovery mechanisms to account for these remaining Phase III costs. I discuss
4 this adjustment for Phase III costs in more detail later in my testimony.

5
6 **Q. PLEASE PROVIDE EXAMPLES OF THE TYPES OF PHASE III COSTS THAT**
7 **WILL CONTINUE TO ACCRUE POST PHASE III.**

8 A. The Companies will incur a variety of Phase III related costs after May 31, 2021, including
9 costs for evaluation, measurement and verification (“EM&V”) of program results,
10 consulting costs related to EM&V analysis, and the development of final reports to the
11 Commission.

12
13 **III. PHASE IV COST RECOVERY MECHANISMS**

14 **Q. PLEASE DESCRIBE THE COST RECOVERY MECHANISMS THAT THE**
15 **COMPANIES ARE PROPOSING BE USED TO RECOVER THEIR PHASE IV**
16 **EE&C PROGRAM COSTS.**

17 A. As permitted by Act 129 and 66 Pa.C.S. § 1307, the Companies are proposing to implement
18 EE&C-C Riders to recover Phase IV related costs (“Phase IV EE&C-C Riders”). The
19 Phase IV EE&C-C Riders are, with the minor exceptions I note later in my testimony,
20 virtually identical to the Phase III EE&C-C Riders that are currently in effect to recover
21 costs incurred under the Phase III Plans. Copies of the proposed *pro forma* tariff
22 supplements for the Phase IV EE&C-C Riders for Met-Ed, Penelec, Penn Power, West
23 Penn, and West Penn – The Pennsylvania State University (“PSU”) are attached to my

1 testimony as Met-Ed/Penelec/Penn Power/West Penn Exhibits AJW-1 through AJW-5,
2 respectively. Met-Ed/Penelec/Penn Power/West Penn Exhibit AJW-6, which is also
3 attached, sets forth the specific calculation of the rates included in each Phase IV EE&C-
4 C Rider.

5
6 **Q. HOW DO THE PROPOSED PHASE IV EE&C-C RIDERS DIFFER FROM THE**
7 **PHASE III EE&C-C RIDERS?**

8 A. There are three differences between the Phase III and Phase IV EE&C-C Rider designs. In
9 the Phase III EE&C-C Riders, the Companies had a separate class for non-profit customers.
10 These customers will now be shifted to the Commercial Customer Class, as there is no
11 longer a requirement for a specific government/non-profit/institutional (“GNI”) savings
12 target in the Phase IV Plan. Additionally, in the Penn Power Phase III EE&C-C Rider,
13 Rate Schedule GS-Large was included in the Commercial Customer Class. To be
14 consistent with the other Companies’ rider class classifications, Penn Power GS-Large will
15 be moved into the Industrial Customer Class for Phase IV. Lastly, in the Companies’ Phase
16 IV EE&C-C Riders, the definition of EEC_{Exp1} has been modified.

17
18 **Q. WHY IS THE NON-PROFIT CUSTOMER CLASS BEING REMOVED?**

19 A. The Companies are removing the Non-profit Customer Class in accordance with the Phase
20 IV Implementation Order, where the Commission did not require a specific savings carve
21 out for GNI customers for the Phase IV Plan.⁵

22

⁵ Phase IV Implementation Order at 37-43.

1 **Q. WHY IS PENN POWER RATE SCHEDULE GS-LARGE BEING MOVED FROM**
2 **THE COMMERCIAL CLASS TO THE INDUSTRIAL CUSTOMER CLASS?**

3 A. In the Phase III Plans, the budgeted EE&C costs for Penn Power included rate schedule
4 GS-Large as part of the Commercial Customer Class, whereas the other Companies
5 included this rate schedule in the Industrial Customer Class. To be consistent with Met-
6 Ed, Penelec, and West Penn, Penn Power is proposing to move the GS-Large rate schedule
7 from the Commercial Customer Class to the Industrial Customer Class for recovery of
8 costs in the Phase IV EE&C-C Rider.

9
10 **Q. PLEASE EXPLAIN THE CHANGE MADE TO THE DEFINITION OF EEC_{EXP1}.**

11 A. In the definition of EEC_{Exp1}, the Companies have added a credit for any PJM
12 Interconnection LLC (“PJM”) capacity market revenues, net of the costs associated with
13 auction participation and including replacing capacity charges, capacity deficiency
14 charges, and any unavoidable PJM charges. This credit is being added to the calculation
15 because the Phase IV Implementation Order specifically found that PJM capacity market
16 “proceeds should be returned to the customer class from which the demand reductions
17 originated.”⁶

18
19 **Q. PLEASE DESCRIBE THE PHASE IV EE&C-C RIDERS.**

20 A. In the Phase IV EE&C-C Riders, the Phase IV EE&C-C rates are expressed as a price per
21 kilowatt hour (“kWh”) for the Residential, Commercial, and Street Lighting Customer
22 Classes. The Industrial Customer Class will be billed based upon the individual customer’s

⁶ Phase IV Implementation Order at 69.

Met-Ed/Penelec/Penn Power/West Penn Statement No. 3

1 Peak Load Contribution (“PLC”) kilowatt (“kW”). The Phase IV EE&C-C rates will be
2 calculated separately for the Residential, Commercial, Street Lighting, and Industrial
3 Customer Classes. As previously indicated, Met-Ed/Penelec/Penn Power/West Penn
4 Exhibits AJW-1 through AJW-5 are copies of the proposed *pro forma* tariff supplements
5 for the Phase IV EE&C-C Riders for Met-Ed, Penelec, Penn Power, West Penn, and West
6 Penn – PSU, respectively. The first page of each rider sets forth the Phase IV EE&C-C
7 rates, as well as the rate schedules that comprise the Residential, Commercial, Street
8 Lighting, and Industrial Customer Classes. The remaining pages of each rider set forth: (i)
9 the rate formula that is used to calculate the rates; (ii) a description of how the Phase IV
10 EE&C-C rates are developed; and (iii) a description of how revenues billed under the Phase
11 IV EE&C-C Riders will be reconciled to actual costs as they are incurred.

12
13 **Q. PLEASE LIST THE RATE SCHEDULES THAT ARE INCLUDED IN EACH**
14 **CUSTOMER CLASS.**

15 A. The Residential Customer Class rate schedules for each of the Companies are as follows:

16 **Met-Ed, Penelec, Penn Power** – Rate RS.

17 **West Penn** – Rate Schedule 10.

18 The rate schedules for the Commercial Customer Class for each of the Companies are as
19 follows:

20 **Met-Ed** – Rate GS-Small, Rate GS-Medium, Rate GS-Volunteer Fire Company
21 and Non-Profit Ambulance Service, Rescue Squad, and Senior Center Service Rate,
22 Rate MS, and Outdoor Area Lighting Service.

Met-Ed/Penelec/Penn Power/West Penn Statement No. 3

1 **Penelec** – Rate GS-Small, Rate GS-Medium, Rate GS - Volunteer Fire Company
2 and Non-Profit Ambulance Service, Rescue Squad, and Senior Center Service Rate,
3 Rate H, and Outdoor Area Lighting Service.

4 **Penn Power** – Rate GS, GS Special Rule GSDS, Rate GM, Rate PLS, GS Special
5 Provision for Volunteer Fire Companies, Non-Profit Senior Citizen Centers, Non-
6 Profit Rescue Squads, and Non-Profit Ambulance Services; and Rate PNP.

7 **West Penn** – Rate Schedule 20, Rate GS 20 - Volunteer Fire Company, and Non-
8 Profit Ambulance Service, Rescue Squad, and Senior Center Service Rate, and Rate
9 Schedule 30.

10 The rate schedules for the Industrial Customer Class for each of the Companies are as
11 follows:

12 **Met-Ed** – Rate GS-Large, Rate GP, and Rate TP.

13 **Penelec** – Rate GS-Large, Rate GP, and Rate LP.

14 **Penn Power** – Rate GS-Large, Rate GP, and Rate GT.

15 **West Penn** – Rate Schedules 35, 40, 44, 46 in Tariff No. 40 and Tariff No. 38
16 (PSU).

17 The rate schedules for the Street Lighting Customer Class for each of the Companies are
18 as follows:

19 **Met-Ed** – Street Lighting Service, Ornamental Street Lighting Service, and LED
20 Street Lighting Service.

21 **Penelec** – High Pressure Sodium Vapor Street Lighting Service, Municipal Street
22 Lighting Service, and LED Street Lighting Service.

23 **Penn Power** – Rate SV, Rate SVD, and Rate LED.

1 West Penn – Rate Schedules 51 through 58, 71, 72.

2

3 **Q. ARE THERE ANY CUSTOMERS WHO WILL NOT PAY THE PHASE IV EE&C-**
4 **C RIDER RATES?**

5 A. Yes, customers taking service under Met-Ed’s or Penelec’s Borderline Service rate
6 schedule will not pay the Phase IV EE&C-C Rider charge. These rate schedules are only
7 available to public utility companies for resale in adjacent service territories under
8 reciprocal agreements between the other public utilities and either Met-Ed or Penelec.
9 These public utilities are not eligible for any of the energy efficiency or peak demand
10 reduction programs being proposed in the Phase IV Plan. Therefore, no Phase IV EE&C-
11 C Rider charge will be applied to Borderline Service customers.

12

13 **Q. WHAT WAS THE BASIS FOR DETERMINING THE RATE SCHEDULES THAT**
14 **WOULD BE INCLUDED WITHIN EACH OF THE COMPANIES’ CUSTOMER**
15 **CLASSES?**

16 A. With the exception of the Non-Profit class being moved to the Commercial Customer Class
17 and the Penn Power Rate GS – Large rate schedule moving to the Industrial Customer
18 Class, the Phase IV EE&C-C rate schedule groupings by Residential, Commercial, Street
19 Lighting, and Industrial Customer Classes are the same as the customer class groupings
20 that are currently in place in the Companies’ Phase III EE&C-C Riders in their respective
21 Commission-approved tariffs. Additionally, the customer classes in the Phase IV EE&C-
22 C Riders are aligned with the specific costs within the Phase IV plan budgets.

23

1 **Q. FOR WHAT PERIOD OF TIME WOULD THE PHASE IV EE&C-C RIDERS FOR**
2 **EACH COMPANY BE EFFECTIVE?**

3 A. The Companies are proposing that their respective Phase IV EE&C-C Riders become
4 effective for service rendered on or after June 1, 2021, and continue through May 31,
5 2026.

6
7 **Q. HOW DO THE COMPANIES INTEND TO COLLECT PHASE IV RELATED**
8 **COSTS THAT WILL NOT BE COLLECTED BY MAY 31, 2026?**

9 A. Assuming future phases of the Commission's EE&C Program, the Companies would
10 propose true-up of Phase IV costs as a component of cost recovery. Should there be no
11 additional phases of the Commission's EE&C Program, the Companies reserve the right
12 herein to request, through a separate filing, approval from the Commission to extend the
13 Phase IV EE&C-C Riders beyond the end of Phase IV in order to collect any remaining
14 Phase IV costs and/or to recover any remaining costs through another surcharge
15 mechanism.

16
17 **Q. WILL THE PHASE IV EE&C-C RIDERS AND THE ASSOCIATED PHASE IV**
18 **EE&C-C RATES BE BYPASSABLE FOR CUSTOMERS WHO OBTAIN**
19 **GENERATION SERVICE FROM A SUPPLIER RATHER THAN FROM THE**
20 **COMPANIES' DEFAULT SERVICE?**

21 A. No. Except for the Met-Ed and Penelec Borderline Service customers that I previously
22 discussed, all customers will pay the Phase IV EE&C-C Rider rates, regardless of the
23 source of the customer's generation service. The Phase IV EE&C-C Riders and applicable

1 EE&C-C rates will be applied to each kWh (or PLC kW for the Industrial Customer Class)
2 delivered during a billing month to customers served under the rate schedules identified as
3 part of either the Residential, Commercial, Street lighting, or Industrial Customer Classes.
4

5 **Q. HOW ARE THE PHASE IV EE&C-C RIDER RATES STRUCTURED?**

6 A. Section 7 of the Companies' Phase IV Plan describes the structure and mechanics of the
7 Phase IV EE&C-C Riders. Generally, the Phase IV EE&C-C Rider rates to be billed to the
8 Residential, Commercial, Street Lighting, and Industrial Customer Classes consist of three
9 principal components. The first is the EECc, or "current cost," component. The second is
10 the reconciliation component, or "E" factor, for Phase IV costs. The third is a second "E"
11 Factor (E2) for collection of Phase III related costs not collected through the Phase III
12 EE&C-C Rider.
13

14 **Q. PLEASE DESCRIBE THE EECc COMPONENT.**

15 A. The EECc component represents the recovery of estimated costs to be incurred during the
16 Annual Computation Period or "Computational Period" in which the Phase IV EE&C-C
17 rates will be in effect for each customer class. As shown on the second and third pages of
18 Met-Ed/Penelec/Penn Power/West Penn Exhibits AJW-1 through AJW-5, the EECc
19 component is customer class specific. The costs included in each customer class's EECc
20 rate are identified as EEC_{Exp1} , EEC_{Exp2} , and EEC_{Exp3} .

21 EEC_{Exp1} represents customer class specific costs that will be associated with the
22 customer class's specific EE&C programs as approved by the Commission. These costs
23 will also include an allocated portion of any indirect costs, such as EE&C Plan marketing

1 costs, that will be incurred by the Companies. These costs will be offset by a credit for any
2 PJM capacity market revenues (net of the costs associated with auction participation and
3 including replacing capacity charges), capacity deficiency charges, and any unavoidable
4 PJM charges.

5 EEC_{Exp2} represents an allocated portion of administrative start-up costs incurred by
6 the Companies in connection with the development of the Phase IV Plan and related
7 programs in response to the Commission's orders and guidance in its Phase IV
8 Implementation Order. These costs are incurred to design, create, and obtain Commission
9 approval of the Companies' Phase IV Plan and include, but are not limited to, consultant
10 costs, outside legal fees, and other direct and indirect costs associated with the development
11 and implementation of the Companies' Phase IV Plan in compliance with the Commission
12 directives.

13 EEC_{Exp3} represents the costs allocated to the Companies for the funding of the
14 Commission's statewide evaluator contract. These costs are not subject to the 2% spending
15 cap imposed by Act 129.

16
17 **Q. PLEASE DESCRIBE THE E-FACTOR COMPONENT OF THE PHASE IV EE&C-**
18 **C RATES.**

19 A. The E-factor component of each Company's Residential, Commercial, Street Lighting, and
20 Industrial Customer Class specific Phase IV EE&C-C rates represents a reconciliation of
21 actual Phase IV EE&C program costs incurred by customer class to actual Phase IV EE&C
22 revenues billed by customer class on a monthly basis. For each of the Companies, this
23 monthly reconciliation by specific customer class will result in either an over-collection of

Met-Ed/Penelec/Penn Power/West Penn Statement No. 3

1 costs by customer class (revenues billed, excluding Pennsylvania Gross Receipts Tax
2 (“GRT”), greater than actual costs) or an under-collection by customer class (revenues
3 billed, excluding GRT, less than actual costs). The E-factor component will be applied on
4 a customer class-specific basis.

5
6 **Q. WILL THE INITIAL PHASE IV EE&C-C RATES BY CUSTOMER CLASS**
7 **INCLUDE A RECONCILIATION OR E-FACTOR COMPONENT?**

8 A. No. Because these are new riders, the initial Phase IV EE&C-C rates will not include an
9 initial Phase IV E-factor component. The first time the Phase IV E-factor component will
10 be included as part of the determination of the Phase IV EE&C-C Rider rates will be in the
11 Companies’ annual filing that will be submitted to the Commission by May 1, 2022, for
12 rates to be effective June 1, 2022. The Phase IV E-factor component then will be included
13 in each subsequent Phase IV EE&C-C Rider filing.

14
15 **Q. PLEASE DESCRIBE THE SECOND E-FACTOR (E2).**

16 A. The second E-factor component (E2) is a reconciliation adjustment for the collection of
17 Phase III-related costs that were not collected through the Phase III EE&C-C Rider.
18 Because of timing, this adjustment will be made for purposes of determining both the Phase
19 IV EE&C-C Rider rates that are being proposed as part of the Phase IV Plan to be effective
20 on June 1, 2021, and the subsequent Program Year rider rates that will be effective on June
21 1, 2022.

1 **Q. PLEASE DESCRIBE HOW THE RECONCILIATION OF FINAL PHASE III**
2 **COSTS WILL BE PERFORMED.**

3 A. Because the rider filings are generally filed with the Commission on May 1st of each year
4 to be in effect on June 1st of that same year, the Phase III costs will be reconciled in two
5 distinct steps. The first step will reconcile the total actual recoverable Phase III Plan
6 expenditures incurred through March 31, 2021, to the actual Phase III Plan revenues
7 collected through March 31, 2021. Because the Phase III EE&C-C Riders will end on May
8 31, 2021, the result of the Phase III reconciliation through March 31, 2021 will appear as
9 a separate component of the Phase IV EE&C-C Rider, which will go into effect on June 1,
10 2021. The second step will account for all actual Phase III revenues and expenses that are
11 realized during the period April 1, 2021, through March 31, 2022 in a final reconciliation.
12 The final over/under collection that results from this reconciliation will also be included as
13 a separate component of the Phase IV EE&C-C Rider rate calculation that will be effective
14 on June 1, 2022.

15
16 **Q. HOW WILL THE COMPANIES INCLUDE ACTUAL COSTS INCURRED**
17 **THROUGH MARCH 31, 2021, IN THE PROPOSED RATES INCLUDED IN THIS**
18 **PROCEEDING?**

19 A. The Companies do not have the actual data available through March 31, 2021 at the time
20 of this filing. Therefore, an update to the reconciliation will be made when the Companies
21 file their compliance filings by May 1, 2021 for rates to be effective on June 1, 2021.

22

1 **Q. HOW OFTEN WILL THE PHASE IV EE&C-C RIDER RATES BY CUSTOMER**
2 **CLASS BE CHANGED?**

3 A. The Companies anticipate that the Phase IV EE&C-C Rider rates will be changed annually
4 on June 1st of each year. However, each of the riders includes a provision that allows the
5 Companies to seek interim revisions to the Phase IV EE&C-C Rider rates, should the
6 Companies determine that the rates, if left unchanged, would result in material over- or
7 under-collection of all recoverable costs incurred or expected to be incurred by customer
8 class.

9
10 **Q. WHAT INFORMATION WILL THE COMPANIES PROVIDE WHEN SEEKING**
11 **TO CHANGE THE PHASE IV EE&C-C RATES?**

12 A. In these annual submissions to the Commission, the Companies will provide the following
13 information in the derivation of the calculated Phase IV EE&C-C Rider rates:

14 1. A reconciliation between actual Phase IV EE&C-C revenues and actual Phase IV
15 EE&C-C costs for the Phase IV EE&C-C Reconciliation Period, as adjusted for
16 removal of GRT. Because these are new riders, this information is not being
17 provided in support of the Phase IV EE&C-C Rider rates being proposed for the
18 period June 1, 2021, through May 31, 2022. Such reconciliations will be provided
19 starting in Program Year 2 for rates to be effective June 1, 2022.

20 2. Any adjustment to the forecasted Phase IV EE&C-C Rider revenues anticipated to
21 be billed during April and May of the applicable program year, as adjusted for the
22 removal of GRT. Because these are new riders, this information is not being
23 provided in support of the Phase IV EE&C-C Rider rates being proposed for the

1 period June 1, 2021 through May 31, 2022. Such adjustments will be provided
2 starting in Program Year 2.

3 3. The Phase IV EE&C budget estimate for the forthcoming Phase IV EE&C-C
4 Computational Period by rate class.

5 4. A reconciliation adjustment for any remaining Phase III EE&C costs that were not
6 collected by the end of the Phase III Period. This adjustment will only be included
7 in the initial EE&C-C rates that will become effective on June 1, 2021, and the
8 subsequent EE&C-C rates that will be in effect for the period June 1, 2022 through
9 May 31, 2023.

10
11 **Q. WILL THE COMPANIES FILE ANY REPORTS RELATED TO THE PHASE IV**
12 **EE&C-C RIDERS WITH THE COMMISSION?**

13 A. Yes. As stated in each of the Companies' Phase IV EE&C-C Riders, an annual report that
14 is consistent with 66 Pa.C.S. § 1307(e) and sets forth the actual revenues and costs incurred
15 will be filed with the Commission by April 30th of each year. These reports will be
16 provided by customer class and will be subject to annual review and audit by the
17 Commission.

18
19 **IV. INITIAL PHASE IV EE&C-C RIDER RATES**

20 **Q. ARE THE COMPANIES PROPOSING SPECIFIC EE&C-C RIDER RATES IN**
21 **THIS PROCEEDING?**

22 A. Yes. The first page of Met-Ed/Penelec/Penn Power/West Penn Exhibits AJW-1 through
23 AJW-5 have the applicable Residential, Commercial, Street Lighting, and Industrial Phase

1 IV EE&C-C rates that would become effective June 1, 2021. These estimated rates are
2 based on the budgeted costs by customer class for the period June 1, 2021, through May
3 31, 2022 - costs that are subject to review and approval in this proceeding. The specific
4 calculation of the estimated Phase IV EE&C-C rates for each of the Companies is set forth
5 in Met-Ed/Penelec/Penn Power/West Penn Exhibit AJW-6.

6
7 **Q. ARE ANY OF THE PROJECTED COSTS INCLUDED IN THE INITIAL EE&C-C**
8 **RATES BEING RECOVERED THROUGH BASE RATES?**

9 A. No.

10
11 **V. CONCLUSION**

12 **Q. ARE YOU FAMILIAR WITH THE REQUIREMENTS FOR RECONCILABLE**
13 **ADJUSTMENT CLAUSES AS SET FORTH IN 66 PA.C.S. § 1307?**

14 A. Yes, I am.

15
16 **Q. IN YOUR OPINION, DO THE COMPANIES' PHASE IV EE&C-C RIDERS, AS**
17 **DESCRIBED IN YOUR TESTIMONY, MEET THE REQUIREMENTS FOR A**
18 **RECONCILABLE ADJUSTMENT CLAUSE TARIFF MECHANISM AS SET**
19 **FORTH IN 66 PA.C.S. § 1307?**

20 A. Yes, they do meet the requirements of 66 Pa.C.S. § 1307, as well as the provisions included
21 in the Commission's Phase IV Implementation Order and Act 129.

22
23 **Q. DOES THIS COMPLETE YOUR DIRECT TESTIMONY?**

Met-Ed/Penelec/Penn Power/West Penn Statement No. 3

- 1 A. Yes, it does. However, I reserve the right to supplement my testimony.

RIDER F
PHASE IV ENERGY EFFICIENCY AND CONSERVATION CHARGE RIDER

An Energy Efficiency and Conservation (“EEC”) Charge (“Phase IV EE&C-C”) shall be applied to each Billing Unit during a billing month to Customers served under this Tariff, with the exception of those served under Borderline Service rates. Billing Units are defined as follows:

Residential, Commercial, and
Street Lighting Customer Classes: Per kWh

Industrial Customer Class: Per kW PLC

Residential, Commercial, and Street Lighting Customer Class rates will be calculated to the nearest one-thousandth of a cent per kWh. Industrial Customer Class rates will be calculated to the nearest one-hundredth of a dollar per kW PLC. The Phase IV EE&C-C rates shall be calculated separately for each customer class according to the provisions of this rider.

For service rendered June 1, 2021 through May 31, 2022 the Phase IV EE&C-C rates billed by Customer Class are as follows:

Residential Customer Class (Rate RS):

0.118 cents per kWh.

Commercial Customer Class (Rate GS-Small, Rate GS-Medium, Rate GS – Volunteer Fire Company and Non-Profit Ambulance Service, Rescue Squad and Senior Center Service Rate, Rate MS and Outdoor Area Lighting Service):

0.136 cents per kWh.

Street Lighting Customer Class (Street Lighting Service, Ornamental Street Lighting Service, and LED Street Lighting Service):

(0.104) cents per kWh.

Industrial Customer Class (Rate GS-Large, Rate GP, and Rate TP):

\$ 0.49 per kW PLC.

RIDERS

Rider F (continued)

The Phase IV EE&C-C rates by Customer Class shall be calculated in accordance with the formula set forth below:

$$EE\&C-C = [(EEC_C - E - E^2) / S] \times [1 / (1 - T)]$$

$$EEC_C = EEC_{Exp1} + EEC_{Exp2} + EEC_{Exp3} \text{ Where:}$$

- EE&C-C =** The charge in cents or dollar per Billing Unit by Customer Class as defined by this rider applied to each Billing Unit for the Rate Schedules identified in this rider.
- EEC_C =** The Energy Efficiency and Conservation Costs by Customer Class incurred and projected to be incurred by the Company for the EE&C-C Computational Period calculated in accordance with the formula shown above.
- EEC_{Exp1} =** Costs incurred and projected to be incurred associated with the Customer Class specific Phase IV EE&C Programs as approved by the Commission for the Phase IV EE&C-C Computational Period by Customer Class. These costs also include an allocated portion of any indirect costs incurred associated with all the Company's Phase IV EE&C Programs for the Phase IV EE&C-C Computational Period. EEC_{Exp1} costs will be offset by a credit for any PJM capacity market revenues (net of the costs associated with auction participation and including replacing capacity charges), capacity deficiency charges and any unavoidable PJM charges. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.
- EEC_{Exp2} =** An allocated portion of incremental administrative start-up costs incurred by the Company through May 31, 2021 in connection with the development of the Company's Phase IV EE&C Programs in response to the Commission's order and guidance at Docket No. M-2020-3015228. These costs to design, create, and obtain Commission approval for the Company's Phase IV EE&C Programs include, but are not limited to, consultant costs, legal fees, and other direct and indirect costs associated with the development and implementation of the Company's Phase IV EE&C Programs in compliance with Commission directives. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.

RIDERS

Rider F (continued)

- EEC_{Exp3} = An allocated portion of the costs the Company incurs and projects to incur to fund the Commission's statewide evaluator contract which shall be excluded in the final determination of the Act 129 limitation on the Company's Phase IV EE&C Program costs. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.
- E = The cumulative over or under-collection of Phase IV EE&C costs by Customer Class that results from the billing of the Phase IV EE&C-C rates (an over- collection is denoted by a positive E and an under-collection by a negative E).
- E^2 = Phase III EE&C final reconciliation over or under-collection of EEC costs by Customer Class that results from the billing of the Phase III EE&C-C rates through March 31, 2021 (an over- collection is denoted by a positive E and an under-collection by a negative E), and any expenses to finalize any measures installed and commercially operable on or before May 31, 2021; expenses to finalize any contracts; other Phase III administrative obligations; and any remaining Phase III EE&C revenues after March 31, 2021.
- S = The Company's projected Billing Units (kWh sales delivered to all Customers in the specific customer class or kW PLC demand for the Industrial Customer Class).
- T = The Pennsylvania gross receipts tax rate in effect during the billing month expressed in decimal form as reflected in the Company's base rates.

All capitalized terms not otherwise defined in this rider shall have the definitions specified in the Definitions of Terms section of this Tariff. For the purpose of this rider, the following additional definitions shall apply:

RIDERS

Rider F (continued)

1. Phase IV EE&C-C Computational Period – The 12-month period from June 1 through May 31.
2. Phase IV EE&C-C Initial Reconciliation Period – June 1, 2021 through March 31, 2022 for the initial period of the rider.
3. Phase IV EE&C-C Reconciliation Period – The 12-month period ending March 31 each year thereafter, except for the Initial Reconciliation Period, for the duration of this rider.
4. Peak Load Contribution (“PLC”) – A Customer’s contribution to the Company’s transmission zone normalized summer peak load, as estimated by the Company in accordance with PJM rules and requirements.
5. Phase III EE&C – The energy efficiency plan that terminates on May 31, 2021. Revenues and EE&C Costs will continue to accrue past the termination date. A final reconciliation of the remaining balance will be included in the June 1, 2022 Phase IV EE&C-C rate calculation as a separate line item.

The Company will submit to the Commission by May 1 of each year starting May 1, 2022: (1) a reconciliation between actual Phase IV EE&C-C revenues and actual Phase IV EE&C-C costs for the Phase IV EE&C-C Reconciliation Period, except for the Phase IV EE&C-C Initial Reconciliation Period, as adjusted for removal of gross receipts tax; (2) any adjustment to the forecasted Phase IV EE&C-C revenues anticipated to be billed during April through May of that year, as adjusted for removal of gross receipts tax; (3) the Phase IV EE&C program cost estimate for the forthcoming Phase IV EE&C-C Computational Period by Customer Class; and (4) Phase III EE&C final reconciliation over or under-collection of EEC costs by Customer Class that results from the billing of the Phase III EE&C-C rates and remaining Phase III EEC costs. There shall also be a final reconciliation of amounts to be collected or refunded after May 31, 2026.

Upon determination that the Phase IV EE&C-C rates, if left unchanged, would result in material over or under-collection of all recoverable costs incurred or expected to be incurred by customer class, the Company may request that the Commission approve one or more interim revisions to the Phase IV EE&C-C rates to become effective thirty (30) days from the date of filing, unless otherwise ordered by the Commission.

The Company shall file an annual report of collections under this rider by April 30th of each year starting April 30, 2022 until the conclusion of this rider.

At the conclusion of the duration of this rider, the Company is authorized to recover or refund any remaining amounts not reconciled at that time under such mechanism as approved by the Commission.

Application of the Phase IV EE&C-C rates shall be subject to annual review and audit by the Commission.

RIDER F

PHASE IV ENERGY EFFICIENCY AND CONSERVATION CHARGE RIDER

An Energy Efficiency and Conservation (“EEC”) Charge (“Phase IV EE&C-C”) shall be applied to each Billing Unit during a billing month to Customers served under this Tariff, with the exception of those served under Borderline Service rates. Billing Units are defined as follows:

Residential, Commercial, and
Street Lighting Customer Classes: Per kWh

Industrial Customer Class: Per kW PLC

Residential, Commercial, and Street Lighting Customer Class rates will be calculated to the nearest one-thousandth of a cent per kWh. Industrial Customer Class rates will be calculated to the nearest one-hundredth of a dollar per kW PLC. The Phase IV EE&C-C rates shall be calculated separately for each customer class according to the provisions of this rider.

For service rendered June 1, 2021 through May 31, 2022 the Phase IV EE&C-C rates billed by Customer Class are as follows:

Residential Customer Class (Rate RS):

0.111 cents per kWh.

Commercial Customer Class (Rate GS-Small, Rate GS-Medium, Rate GS – Volunteer Fire Company and Non-Profit Ambulance Service, Rescue Squad and Senior Center Service Rate, Rate H and Outdoor Area Lighting Service):

0.149 cents per kWh.

Street Lighting Customer Class (High Pressure Sodium Vapor Street Lighting Service, Municipal Street Lighting Service, and LED Street Lighting Service):

(0.145) cents per kWh.

Industrial Customer Class (Rate GS-Large, Rate GP, and Rate LP):

\$ 0.38 per kW PLC.

RIDERS

Rider F (continued)

The Phase IV EE&C-C rates by Customer Class shall be calculated in accordance with the formula set forth below:

$$EE\&C-C = [(EEC_C - E - E^2) / S] \times [1 / (1 - T)]$$

$$EEC_C = EEC_{Exp1} + EEC_{Exp2} + EEC_{Exp3}$$

Where:

EE&C-C = The charge in cents or dollar per Billing Unit by Customer Class as defined by this rider applied to each Billing Unit for the Rate Schedules identified in this rider.

EEC_C = The Energy Efficiency and Conservation Costs by Customer Class incurred and projected to be incurred by the Company for the EE&C-C Computational Period calculated in accordance with the formula shown above.

EEC_{Exp1} = Costs incurred and projected to be incurred associated with the Customer Class specific Phase IV EE&C Programs as approved by the Commission for the Phase IV EE&C-C Computational Period by Customer Class. These costs also include an allocated portion of any indirect costs incurred associated with all the Company's Phase IV EE&C Programs for the Phase IV EE&C-C Computational Period. EEC_{Exp1} costs will be offset by a credit for any PJM capacity market revenues (net of the costs associated with auction participation and including replacing capacity charges), capacity deficiency charges and any unavoidable PJM charges. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.

EEC_{Exp2} = An allocated portion of incremental administrative start-up costs incurred by the Company through May 31, 2021 in connection with the development of the Company's Phase IV EE&C Programs in response to the Commission's order and guidance at Docket No. M-2020-3015228. These costs to design, create, and obtain Commission approval for the Company's Phase IV EE&C Programs include, but are not limited to, consultant costs, legal fees, and other direct and indirect costs associated with the development and implementation of the Company's Phase IV EE&C Programs in compliance with Commission directives. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.

RIDERS

Rider F (continued)

- EEC_{Exp3} = An allocated portion of the costs the Company incurs and projects to incur to fund the Commission's statewide evaluator contract which shall be excluded in the final determination of the Act 129 limitation on the Company's Phase IV EE&C Programs costs. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.
- E = The cumulative over or under-collection of Phase IV EE&C costs by Customer Class that results from the billing of the Phase IV EE&C-C rates (an over- collection is denoted by a positive E and an under-collection by a negative E).
- E^2 = Phase III EE&C final reconciliation over or under-collection of EEC costs by Customer Class that results from the billing of the Phase III EE&C-C rates through March 31, 2021 (an over- collection is denoted by a positive E and an under-collection by a negative E), and any expenses to finalize any measures installed and commercially operable on or before May 31, 2021; expenses to finalize any contracts; other Phase III administrative obligations; and any remaining Phase III EE&C revenues after March 31, 2021.
- S = The Company's projected Billing Units (kWh sales delivered to all Customers in the specific customer class or kW PLC demand for the Industrial Customer Class).
- T = The Pennsylvania gross receipts tax rate in effect during the billing month expressed in decimal form as reflected in the Company's base rates.

All capitalized terms not otherwise defined in this rider shall have the definitions specified in the Definitions of Terms section of this Tariff. For the purpose of this rider, the following additional definitions shall apply:

RIDERS

Rider F (continued)

1. Phase IV EE&C-C Computational Period – The 12-month period from June 1 through May 31.
2. Phase IV EE&C-C Initial Reconciliation Period – June 1, 2021 through March 31, 2022 for the initial period of the rider.
3. Phase IV EE&C-C Reconciliation Period – The 12-month period ending March 31 each year thereafter, except for the Initial Reconciliation Period, for the duration of this rider.
4. Peak Load Contribution (“PLC”) – A Customer’s contribution to the Company’s transmission zone normalized summer peak load, as estimated by the Company in accordance with PJM rules and requirements.
5. Phase III EE&C – The energy efficiency plan that terminates on May 31, 2021. Revenues and EE&C Costs will continue to accrue past the termination date. A final reconciliation of the remaining balance will be included in the June 1, 2022 Phase IV EE&C-C rate calculation as a separate line item.

The Company will submit to the Commission by May 1 of each year starting May 1, 2022: (1) a reconciliation between actual Phase IV EE&C-C revenues and actual Phase IV EE&C-C costs for the Phase IV EE&C-C Reconciliation Period, except for the Phase IV EE&C-C Initial Reconciliation Period, as adjusted for removal of gross receipts tax; (2) any adjustment to the forecasted Phase IV EE&C-C revenues anticipated to be billed during April through May of that year, as adjusted for removal of gross receipts tax; (3) the Phase IV EE&C program cost estimate for the forthcoming Phase IV EE&C-C Computational Period by Customer Class; and (4) Phase III EE&C final reconciliation over or under-collection of EEC costs by Customer Class that results from the billing of the Phase III EE&C-C rates and remaining Phase III EEC costs. There shall also be a final reconciliation of amounts to be collected or refunded after May 31, 2026.

Upon determination that the Phase IV EE&C-C rates, if left unchanged, would result in material over or under-collection of all recoverable costs incurred or expected to be incurred by customer class, the Company may request that the Commission approve one or more interim revisions to the Phase IV EE&C-C rates to become effective thirty (30) days from the date of filing, unless otherwise ordered by the Commission.

The Company shall file an annual report of collections under this rider by April 30th of each year starting April 30, 2022 until the conclusion of this rider.

At the conclusion of the duration of this rider, the Company is authorized to recover or refund any remaining amounts not reconciled at that time under such mechanism as approved by the Commission.

Application of the Phase IV EE&C-C rates shall be subject to annual review and audit by the Commission.

RIDER F

PHASE IV ENERGY EFFICIENCY AND CONSERVATION CHARGE RIDER

An Energy Efficiency and Conservation (“EEC”) Charge (“Phase IV EE&C-C”) shall be applied to each Billing Unit during a billing month to Customers served under this Tariff. Billing Units are defined as follows:

Residential, Commercial, and
Street Lighting Customer Classes: Per kWh

Industrial Customer Class: Per kW PLC

Residential, Commercial, and Street Lighting Customer Class rates will be calculated to the nearest one-thousandth of a cent per kWh. Industrial Customer Class rates will be calculated to the nearest one-hundredth of a dollar per kW PLC. The Phase IV EE&C-C rates shall be calculated separately for each customer class according to the provisions of this rider.

For service rendered June 1, 2021 through May 31, 2022 the Phase IV EE&C-C rates billed by Customer Class are as follows:

Residential Customer Class (Rate Schedule RS):

0.142 cents per kWh.

Commercial Customer Class (Rate GS; GS Special Rule GSDS, Rate GM; Rate PLS; GS Special Provision for Volunteer Fire Companies, Non-Profit Senior Citizen Centers, Non-Profit Rescue Squads and Non-Profit Ambulance Services; and Rate PNP):

0.171 cents per kWh.

Street Lighting Customer Class (Rate SV; Rate SVD; and Rate LED):

(0.694) cents per kWh.

Industrial Customer Class (Rate GS-Large, Rate GP, and Rate GT):

\$ 0.31 per kW PLC.

RIDERS

Rider F (continued)

The Phase IV EE&C-C rates by Customer Class shall be calculated in accordance with the formula set forth below:

$$EE\&C-C = [(EEC_C - E - E^2) / S] \times [1 / (1 - T)]$$

$$EEC_C = EEC_{Exp1} + EEC_{Exp2} + EEC_{Exp3}$$

Where:

- EE&C-C = The charge in cents or dollar per Billing Unit by Customer Class as defined by this rider applied to each Billing Unit for the Rate Schedules identified in this rider.
- EEC_C = The Energy Efficiency and Conservation Costs by Customer Class incurred and projected to be incurred by the Company for the Phase IV EE&C-C Computational Period calculated in accordance with the formula shown above.
- EEC_{Exp1} = Costs incurred and projected to be incurred associated with the Customer Class specific Phase IV EE&C Programs as approved by the Commission for the Phase IV EE&C-C Computational Period by Customer Class. These costs also include an allocated portion of any indirect costs incurred associated with all the Company's Phase IV EE&C Programs for the Phase IV EE&C-C Computational Period. EEC_{Exp1} costs will be offset by a credit for any PJM capacity market revenues (net of the costs associated with auction participation and including replacing capacity charges), capacity deficiency charges and any unavoidable PJM charges. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.
- EEC_{Exp2} = An allocated portion of incremental administrative start-up costs incurred by the Company through May 31, 2021 in connection with the development of the Company's Phase IV EE&C Programs in response to the Commission's order and guidance at Docket No. M-2020-3015228. These costs to design, create, and obtain Commission approval for the Company's Phase IV EE&C Programs include, but are not limited to, consultant costs, legal fees, and other direct and indirect costs associated with the development and implementation of the Company's Phase IV EE&C Programs in compliance with Commission directives. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.

RIDERS

Rider F (continued)

- EEC_{Exp3} = An allocated portion of the costs the Company incurs and projects to incur to fund the Commission's statewide evaluator contract which shall be excluded in the final determination of the Act 129 limitation on the Company's Phase IV EE&C Programs costs. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.
- E = The cumulative over or under-collection of Phase IV EE&C costs by Customer Class that results from the billing of the Phase IV EE&C-C rates (an over-collection is denoted by a positive E and an under-collection by a negative E).
- E^2 = Phase III EE&C final reconciliation over or under-collection of EEC costs by Customer Class that results from the billing of the Phase III EE&C-C rates through March 31, 2021 (an over- collection is denoted by a positive E and an under-collection by a negative E), and any expenses to finalize any measures installed and commercially operable on or before May 31, 2021; expenses to finalize any contracts; other Phase III administrative obligations; and any remaining Phase III EE&C revenues after March 31, 2021.
- S = The Company's projected Billing Units (kWh sales delivered to all Customers in the specific customer class or kW PLC demand for the Industrial Customer Class).
- T = The Pennsylvania gross receipts tax rate in effect during the billing month expressed in decimal form as reflected in the Company's base rates.

All capitalized terms not otherwise defined in this rider shall have the definitions specified in the Definitions of Terms section of this Tariff. For the purpose of this rider, the following additional definitions shall apply:

RIDERS

Rider F (continued)

1. Phase IV EE&C-C Computational Period – The 12-month period from June 1 through May 31.
2. Phase IV EE&C-C Initial Reconciliation Period – June 1, 2021 through March 31, 2022 for the initial period of the rider.
3. Phase IV EE&C-C Reconciliation Period – The 12-month period ending March 31 each year thereafter, except for the Initial Reconciliation Period, for the duration of this rider.
4. Peak Load Contribution (“PLC”) – A Customer’s contribution to the Company’s transmission zone normalized summer peak load, as estimated by the Company in accordance with PJM rules and requirements.
5. Phase III EE&C – The energy efficiency plan that terminates on May 31, 2021. Revenues and EE&C Costs will continue to accrue past the termination date. A final reconciliation of the remaining balance will be included in the June 1, 2022 Phase IV EE&C-C rate calculation as a separate line item.

The Company will submit to the Commission by May 1 of each year starting May 1, 2022: (1) a reconciliation between actual Phase IV EE&C-C revenues and actual Phase IV EE&C-C costs for the Phase IV EE&C-C Reconciliation Period, except for the Phase III EE&C-C Initial Reconciliation Period, as adjusted for removal of gross receipts tax; (2) any adjustment to the forecasted Phase IV EE&C-C revenues anticipated to be billed during April through May of that year, as adjusted for removal of gross receipts tax; (3) the Phase IV EE&C program cost estimate for the forthcoming Phase IV EE&C-C Computational Period by Customer Class; and (4) Phase III EE&C final reconciliation over or under-collection of EEC costs by Customer Class that results from the billing of the Phase III EE&C-C rates and remaining Phase III EEC costs incurred after March 31, 2021. There shall also be a final reconciliation of amounts to be collected or refunded after May 31, 2026.

Upon determination that the Phase IV EE&C-C rates, if left unchanged, would result in material over or under-collection of all recoverable costs incurred or expected to be incurred by customer class, the Company may request that the Commission approve one or more interim revisions to the Phase IV EE&C-C rates to become effective thirty (30) days from the date of filing, unless otherwise ordered by the Commission.

The Company shall file an annual report of collections under this rider by April 30th of each year starting April 30, 2022 until the conclusion of this rider.

At the conclusion of the duration of this rider, the Company is authorized to recover or refund any remaining amounts not reconciled at that time under such mechanism as approved by the Commission.

Application of the Phase IV EE&C-C rates shall be subject to annual review and audit by the Commission.

RIDER F
PHASE IV ENERGY EFFICIENCY AND CONSERVATION CHARGE RIDER

An Energy Efficiency and Conservation (“EEC”) Charge (“Phase IV EE&C-C”) shall be applied to each Billing Unit during a billing month to Customers served under this Tariff. Billing Units are defined as follows:

Residential, Commercial, and Street Lighting Customer Classes:	Per kWh
Industrial Customer Class:	Per kW PLC

Residential, Commercial, and Street Lighting Customer Class rates will be calculated to the nearest one-thousandth of a cent per kWh. Industrial Customer Class rates will be calculated to the nearest one-hundredth of a dollar per kW PLC. The Phase IV EE&C-C rates shall be calculated separately for each customer class according to the provisions of this rider.

For service rendered June 1, 2021 through May 31, 2022 the Phase IV EE&C-C rates billed by Customer Class are as follows:

Residential Customer Class (Rate 10):

0.139 cents per kWh.

Commercial Customer Class (Rate GS 20, Rate GS 20 - Volunteer Fire Company, and Non-Profit Ambulance Service, Rescue Squad and Senior Center Service Rate and Rate GS 30):

0.117 cents per kWh.

Street Lighting Customer Class (Rate Schedules 51 through 58, 71, 72):

(0.864) cents per kWh.

Industrial Customer Class (Rate GS 35, 40, 44, 46 and Tariff No. 38):

\$ 0.27 per kW PLC.

RIDERS

Rider F (continued)

The Phase IV EE&C-C rates by Customer Class shall be calculated in accordance with the formula set forth below:

$$EE\&C-C = [(EEC_C - E - E^2) / S] \times [1 / (1 - T)]$$

$$EEC_C = EEC_{Exp1} + EEC_{Exp2} + EEC_{Exp3}$$

Where:

- EE&C-C = The charge in cents or dollar per Billing Unit by Customer Class as defined by this rider applied to each Billing Unit for the Rate Schedules and Tariffs identified in this rider.
- EEC_C = The Energy Efficiency and Conservation Costs by Customer Class incurred and projected to be incurred by the Company for the Phase IV EE&C-C Computational Period calculated in accordance with the formula shown above.
- EEC_{Exp1} = Costs incurred and projected to be incurred associated with the Customer Class specific Phase IV EE&C Programs as approved by the Commission for the Phase IV EE&C-C Computational Period by Customer Class. These costs also include an allocated portion of any indirect costs incurred associated with all the Company's Phase IV EE&C Programs for the Phase IV EE&C-C Computational Period. EEC_{Exp1} costs will be offset by a credit for any PJM capacity market revenues (net of the costs associated with auction participation and including replacing capacity charges), capacity deficiency charges and any unavoidable PJM charges. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.
- EEC_{Exp2} = An allocated portion of incremental administrative start-up costs incurred by the Company through May 31, 2021 in connection with the development of the Company's Phase IV EE&C Programs in response to the Commission's order and guidance at Docket No. M-2020-3015228. These costs to design, create, and obtain Commission approval for the Company's Phase IV EE&C Programs include, but are not limited to, consultant costs, legal fees, and other direct and indirect costs associated with the development and implementation of the Company's Phase IV EE&C Programs in compliance with Commission directives. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.

RIDERS

Rider F (continued)

- EEC_{Exp3} = An allocated portion of the costs the Company incurs and projects to incur to fund the Commission's statewide evaluator contract which shall be excluded in the final determination of the Act 129 limitation on the Company's Phase IV EE&C Programs costs. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.
- E = The cumulative over or under-collection of Phase IV EE&C costs by Customer Class that results from the billing of the Phase IV EE&C-C rates (an over-collection is denoted by a positive E and an under-collection by a negative E).
- E^2 = Phase III EE&C final reconciliation over or under-collection of EEC costs by Customer Class that results from the billing of the Phase III EE&C-C rates through March 31, 2021 (an over- collection is denoted by a positive E and an under-collection by a negative E), and any expenses to finalize any measures installed and commercially operable on or before May 31, 2021; expenses to finalize any contracts; other Phase III administrative obligations; and any remaining Phase III EE&C revenues after March 31, 2021.
- S = The Company's projected Billing Units (kWh sales delivered to all Customers in the specific customer class or kW PLC demand for the Industrial Customer Class).
- T = The Pennsylvania gross receipts tax rate in effect during the billing month expressed in decimal form as reflected in the Company's base rates.

All capitalized terms not otherwise defined in this rider shall have the definitions specified in the Definitions of Terms section of this Tariff. For the purpose of this rider, the following additional definitions shall apply:

RIDERS

Rider F (continued)

1. Phase IV EE&C-C Computational Period – The 12-month period from June 1 through May 31.
2. Phase IV EE&C-C Initial Reconciliation Period – June 1, 2021 through March 31, 2022 for the initial period of the rider.
3. Phase IV EE&C-C Reconciliation Period – The 12-month period ending March 31 each year thereafter, except for the Initial Reconciliation Period, for the duration of this rider.
4. Peak Load Contribution (“PLC”) – A Customer’s contribution to the Company’s transmission zone normalized summer peak load, as estimated by the Company in accordance with PJM rules and requirements.
5. Phase III EE&C – The energy efficiency plan that terminates on May 31, 2021. Revenues and EE&C Costs will continue to accrue past the termination date. A final reconciliation of the remaining balance will be included in the June 1, 2022 Phase IV EE&C-C rate calculation as a separate line item.

The Company will submit to the Commission by May 1 of each year starting May 1, 2022: (1) a reconciliation between actual Phase IV EE&C-C revenues and actual Phase IV EE&C-C costs for the Phase IV EE&C-C Reconciliation Period, except for the Phase IV EE&C-C Initial Reconciliation Period, as adjusted for removal of gross receipts tax; (2) any adjustment to the forecasted Phase IV EE&C-C revenues anticipated to be billed during April through May of that year, as adjusted for removal of gross receipts tax; (3) the Phase IV EE&C program cost estimate for the forthcoming Phase IV EE&C-C Computational Period by Customer Class; and (4) Phase III EE&C final reconciliation over or under-collection of EEC costs by Customer Class that results from the billing of the Phase III EE&C-C rates and remaining Phase III EEC costs. There shall also be a final reconciliation of amounts to be collected or refunded after May 31, 2026.

Upon determination that the Phase IV EE&C-C rates, if left unchanged, would result in material over or under-collection of all recoverable costs incurred or expected to be incurred by customer class, the Company may request that the Commission approve one or more interim revisions to the Phase IV EE&C-C rates to become effective thirty (30) days from the date of filing, unless otherwise ordered by the Commission.

The Company shall file an annual report of collections under this rider by April 30th of each year starting April 30, 2022 until the conclusion of this rider.

At the conclusion of the duration of this rider, the Company is authorized to recover or refund any remaining amounts not reconciled at that time under such mechanism as approved by the Commission.

Application of the Phase IV EE&C-C rates shall be subject to annual review and audit by the Commission.

RIDER F

TARIFF No. 38 – PENNSYLVANIA STATE UNIVERSITY
PHASE IV ENERGY EFFICIENCY AND CONSERVATION CHARGE RIDER

An Energy Efficiency and Conservation (“EEC”) Charge (“Phase IV EE&C-C”) shall be applied to each Billing Unit during a billing month to Customers served under this Tariff. Billing Units are defined as follows:

Industrial Customer Class rates will be calculated to the nearest one-hundredth of a dollar per kW PLC. The Phase IV EE&C-C rates shall be calculated separately for each customer class according to the provisions of this rider.

For service rendered June 1, 2021 through May 31, 2022 the Phase IV EE&C-C rates billed by Customer Class are as follows:

Industrial Customer Class (Tariff No. 40 Rate Schedule 35, 40, 44 and 46 and Tariff No. 38):

\$ 0.27 per kW PLC.

RIDERS

Rider F (Continued)

The Phase IV EE&C-C rates by Customer Class shall be calculated in accordance with the formula set forth below:

$$EE\&C-C = [(EEC_C - E - E^2) / S] \times [1 / (1 - T)]$$

$$EEC_C = EEC_{Exp1} + EEC_{Exp2} + EEC_{Exp3}$$

Where:

$EE\&C-C$ = The charge in cents or dollar per Billing Unit by Customer Class as defined by this rider applied to each Billing Unit for the Rate Schedules identified in this rider.

EEC_C = The Energy Efficiency and Conservation Costs by Customer Class incurred and projected to be incurred by the Company for the Phase IV EE&C-C Computational Period calculated in accordance with the formula shown above.

EEC_{Exp1} = Costs incurred and projected to be incurred associated with the Customer Class specific Phase IV EE&C Programs as approved by the Commission for the Phase IV EE&C-C Computational Period by Customer Class. These costs also include an allocated portion of any indirect costs incurred associated with all the Company's Phase IV EE&C Programs for the Phase IV EE&C-C Computational Period. EEC_{Exp1} costs will be offset by a credit for any PJM capacity market revenues (net of the costs associated with auction participation and including replacing capacity charges), capacity deficiency charges and any unavoidable PJM charges. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.

EEC_{Exp2} = An allocated portion of incremental administrative start-up costs incurred by the Company through May 31, 2021 in connection with the development of the Company's Phase IV EE&C Programs in response to the Commission's order and guidance at Docket No. M-2020-3015228. These costs to design, create, and obtain Commission approval for the Company's Phase IV EE&C Programs include, but are not limited to, consultant costs, legal fees, and other direct and indirect costs associated with the development and implementation of the Company's Phase IV EE&C Programs in compliance with Commission directives. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.

Rider F (Continued)

- EEC_{Exp3} = An allocated portion of the costs the Company incurs and projects to incur to fund the Commission's statewide evaluator contract which shall be excluded in the final determination of the Act 129 limitation on the Company's Phase IV EE&C Programs costs. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program cost.
- E = The cumulative over or under-collection of Phase IV EE&C costs by Customer Class that results from the billing of the Phase IV EE&C-C rates (an over- collection is denoted by a positive E and an under-collection by a negative E).
- E^2 = Phase III EE&C final reconciliation over or under-collection of EEC costs by Customer Class that results from the billing of the Phase III EE&C-C rates through March 31, 2021 (an over- collection is denoted by a positive E and an under-collection by a negative E), and any expenses to finalize any measures installed and commercially operable on or before May 31, 2021; expenses to finalize any contracts; other Phase III administrative obligations; and any remaining Phase III EE&C revenues after March 31, 2021.
- S = The Company's projected Billing Units (kWh sales delivered to all Customers in the specific customer class or kW PLC demand for the Industrial Customer Class).
- T = The Pennsylvania gross receipts tax rate in effect during the billing month expressed in decimal form as reflected in the Company's base rates.

All capitalized terms not otherwise defined in this rider shall have the definitions specified in the Definitions of Terms section of this Tariff. For the purpose of this rider, the following additional definitions shall apply:

Rider F (continued)

1. Phase IV EE&C-C Computational Period – The 12-month period from June 1 through May 31.
2. Phase IV EE&C-C Initial Reconciliation Period – June 1, 2021 through March 31, 2022 for the initial period of the rider.
3. Phase IV EE&C-C Reconciliation Period – The 12-month period ending March 31 each year thereafter, except for the Initial Reconciliation Period, for the duration of this rider.
4. Peak Load Contribution (“PLC”) – A Customer’s contribution to the Company’s transmission zone normalized summer peak load, as estimated by the Company in accordance with PJM rules and requirements.
5. Phase III EE&C – The energy efficiency plan that terminates on May 31, 2021. Revenues and EE&C Costs will continue to accrue past the termination date. A final reconciliation of the remaining balance will be included in the June 1, 2022 Phase IV EE&C-C rate calculation as a separate line item.

The Company will submit to the Commission by May 1 of each year starting May 1, 2022: (1) a reconciliation between actual Phase IV EE&C-C revenues and actual Phase IV EE&C-C costs for the Phase IV EE&C-C Reconciliation Period, except for the Phase IV EE&C-C Initial Reconciliation Period, as adjusted for removal of gross receipts tax; (2) any adjustment to the forecasted Phase IV EE&C-C revenues anticipated to be billed during April through May of that year, as adjusted for removal of gross receipts tax; (3) the Phase IV EE&C program cost estimate for the forthcoming Phase IV EE&C-C Computational Period by Customer Class; and (4) Phase III EE&C final reconciliation over or under-collection of EEC costs by Customer Class that results from the billing of the Phase III EE&C-C rates and remaining Phase III EEC costs. There shall also be a final reconciliation of amounts to be collected or refunded after May 31, 2026.

Upon determination that the Phase IV EE&C-C rates, if left unchanged, would result in material over or under-collection of all recoverable costs incurred or expected to be incurred by customer class, the Company may request that the Commission approve one or more interim revisions to the Phase IV EE&C-C rates to become effective thirty (30) days from the date of filing, unless otherwise ordered by the Commission.

The Company shall file an annual report of collections under this rider by April 30th of each year starting April 30, 2022 until the conclusion of this rider.

At the conclusion of the duration of this rider, the Company is authorized to recover or refund any remaining amounts not reconciled at that time under such mechanism as approved by the Commission.

Application of the Phase IV EE&C-C rates shall be subject to annual review and audit by the Commission.

**Projected Metropolitan Edison Company's Phase IV Energy Efficiency and Conservation ("EE&C-C") Charge ("EE&C-C") Rates
For the Rate Period June 1, 2021 through May 31, 2022**

Line No.	Description	Met-Ed Residential Customer Class (1)	Met-Ed Commercial Customer Class (2)	Met-Ed Street Lighting Customer Class (3)	Met-Ed Industrial Customer Class (4)	Met-Ed Total (5)
1	Total Met-Ed Projected Program Costs for the period June 1, 2021 through May 31, 2022 subject to 2% cap	\$ 10,340,564	\$ 5,997,305	\$ 18,961	\$ 7,469,633	\$ 23,826,463
2	Met-Ed's Share of Statewide Evaluator Costs (June 1, 2021 through May 31, 2022)	<u>111,103</u>	<u>64,437</u>	<u>204</u>	<u>80,256</u>	<u>256,000</u>
3	Total Met-Ed Projected Program Costs including Statewide Evaluator Cost for the period June 1, 2021 through May 31, 2022 (Line 1 + Line 2)	\$ 10,451,666	\$ 6,061,742	\$ 19,165	\$ 7,549,889	\$ 24,082,463
4	Phase III over/(under) collection through October 31, 2020	<u>4,327,962</u>	<u>2,599,612</u> (D)	<u>45,220</u>	<u>1,298,074</u>	<u>\$ 8,270,868</u>
5	Total to be collected June 1, 2021 to May 31, 2022 (Line 3 - Line 4)	<u>\$ 6,123,704</u>	<u>\$ 3,462,130</u>	<u>\$ (26,055)</u>	<u>\$ 6,251,815</u>	<u>\$ 15,811,595</u>
6	Customer Class Projected Kilowatt-Hours ("kWh") Delivered or Peak Load Contribution Kilowatt ("kW") for June 1, 2021 - May 31, 2022	5,504,140,393 kWhs	2,698,375,721 kWhs	26,522,400 kWhs	13,633,043 kWhs	
7	Phase IV - EE&C-C Rates Before Pa Gross Receipts Tax Gross-Up Factor (Line 5 / Line 6)	\$ 0.00111 per kWh	\$ 0.00128 per kWh	\$ (0.00098) per kWh	\$ 0.45858 per kW	
8	Pa Gross Receipts Tax Gross-Up Factor [1 / (1-T)] with T = 5.90% Pa Gross Receipts Tax in Base Rates]	<u>1.062699</u>	<u>1.062699</u>	<u>1.062699</u>	<u>1.062699</u>	
9	Proposed Phase IV EE&C-C Rates Effective June 1, 2021 (Line 7 x Line 8)	<u>\$ 0.00118 per kWh</u>	<u>\$ 0.00136 per kWh</u>	<u>\$ (0.00104) per kWh</u>	<u>\$ 0.49 per kW</u>	
10	Percentage of Projected Program costs to allocate SWE cost	43.40%	25.17%	0.08%	31.35%	100.00%

(A) Pennsylvania's Act 129 of 2008 states that the maximum annual cost recovery for Energy Efficiency and Conservation Programs cannot exceed 2% of the electric distribution company's total annual revenue as of December 31, 2006.

(B) For purposes of the Industrial class rate calculation, the billing unit is equal to the Peak Load Share in kWhs.

(C) All costs and revenue estimates are current budgets, and subject to modification at a future date. The Statewide Evaluator Cost utilized is the estimate based on the expense to be incurred for Phase IV.

(D) Non-Profit Customer Class Phase III deferral balance has been consolidated with the Commercial Customer Class for Phase IV.

**Projected Pennsylvania Electric Company's Phase IV Energy Efficiency and Conservation ("EE&C-C") Charge ("EE&C-C") Rates
For the Rate Period June 1, 2021 through May 31, 2022**

Line No.	Description	Penelec Residential Customer Class (1)	Penelec Commercial Customer Class (2)	Penelec Street Lighting Customer Class (3)	Penelec Industrial Customer Class (4)	Penelec Total (5)
1	Total Penelec Projected Program Costs for the period June 1, 2021 through May 31, 2022 subject to 2% cap	\$ 9,460,722	\$ 6,705,760	\$ 18,623	\$ 5,817,671	\$ 22,002,777
2	Penelec's Share of Statewide Evaluator Costs (June 1, 2021 through May 31, 2022)	<u>99,755</u>	<u>70,706</u>	<u>196</u>	<u>61,342</u>	<u>232,000</u>
3	Total Penelec Projected Program Costs including Statewide Evaluator Cost for the period June 1, 2021 through May 31, 2022 (Line 1 + Line 2)	\$ 9,560,477	\$ 6,776,467	\$ 18,820	\$ 5,879,014	\$ 22,234,777
4	Phase III over/(under) collection through October 31, 2021	<u>5,157,594</u>	<u>2,284,043</u> (D)	<u>61,225</u>	<u>1,270,711</u>	<u>\$ 8,773,573</u>
5	Total to be collected June 1, 2021 to May 31, 2022 (Line 3 - Line 4)	<u>\$ 4,402,883</u>	<u>\$ 4,492,424</u>	<u>\$ (42,405)</u>	<u>\$ 4,608,303</u>	<u>\$ 13,461,204</u>
6	Customer Class Projected Kilowatt-Hours ("kWh") Delivered or Peak Load Contribution Kilowatt ("kW") for June 1, 2021 - May 31, 2022	4,200,366,638 kWhs	3,206,827,721 kWhs	31,052,698 kWhs	12,754,331 kWhs	
7	Phase IV - EE&C-C Rates Before Pa Gross Receipts Tax (Line 5/ Line 6)	\$ 0.00105 per kWh	\$ 0.00140 per kWh	\$ (0.00137) per kWh	\$ 0.36131 per kW	
8	Pa Gross Receipts Tax Gross-Up Factor [1 / (1-T) with T = 5.90% Pa Gross Receipts Tax in Base Rates]	<u>1.062699</u>	<u>1.062699</u>	<u>1.062699</u>	<u>1.062699</u>	
9	Proposed Phase IV EE&C-C Rates Effective June 1, 2021 (Line 7 X Line 8)	<u>\$ 0.00111 per kWh</u>	<u>\$ 0.00149 per kWh</u>	<u>\$ (0.00145) per kWh</u>	<u>\$ 0.38 per kW</u>	
10	Percentage of Projected Program costs to allocate SWE cost	43.00%	30.48%	0.08%	26.44%	100.00%

(A) Pennsylvania's Act 129 of 2008 states that the maximum annual cost recovery for Energy Efficiency and Conservation Programs cannot exceed 2% of the electric distribution company's total annual revenue as of December 31, 2006.

(B) For purposes of the Industrial class rate calculation, the billing unit is equal to the Peak Load Share in kWhs.

(C) All costs and revenue estimates are current budgets, and subject to modification at a future date. The Statewide Evaluator Cost utilized is the estimate based on the expense to be incurred for Phase IV.

(D) Non-Profit Customer Class Phase III deferral balance has been consolidated with the Commercial Customer Class for Phase IV.

**Projected Pennsylvania Power Company's Phase IV Energy Efficiency and Conservation ("EE&C-C") Charge ("EE&C-C") Rates
For the Rate Period June 1, 2021 through May 31, 2022**

Line No.	Description	Penn Power Residential Customer Class (1)	Penn Power Commercial Customer Class (2)	Penn Power Street Lighting Customer Class (3)	Penn Power Industrial Customer Class (4)	Penn Power Total (5)
1	Total Penn Power Projected Program Costs for the period June 1, 2021 through May 31, 2022 subject to 2% cap	\$ 3,199,678	\$ 1,757,349	\$ 6,304	\$ 1,498,778	\$ 6,462,110
2	Penn Power's Share of Statewide Evaluator Costs (June 1, 2021 through May 31, 2022)	<u>35,650</u>	<u>19,580</u>	<u>70</u>	<u>16,699</u>	<u>72,000</u>
3	Total Penn Power Projected Program Costs including Statewide Evaluator Cost for the period June 1, 2021 through May 31, 2022 (Line 1 + Line 2)	\$ 3,235,329	\$ 1,776,929	\$ 6,374	\$ 1,515,478	\$ 6,534,110
4	Phase III over/(under) collection through October 31, 2021	<u>1,063,181</u>	<u>71,436</u> (D)	<u>31,464</u>	<u>451,790</u>	<u>1,617,871</u>
5	Total to be collected June 1, 2021 to May 31, 2022 (Line 3 - Line 4)	<u>\$ 2,172,148</u>	<u>\$ 1,705,493</u>	<u>\$ (25,090)</u>	<u>\$ 1,063,688</u>	<u>\$ 4,916,239</u>
6	Customer Class Projected Kilowatt-Hours ("kWh") Delivered or Peak Load Contribution Kilowatt ("kW") for June 1, 2021 - May 31, 2022	1,628,061,813 kWhs	1,062,182,960 kWhs	3,842,558 kWhs	3,661,381 kWhs	
7	Phase IV EE&C-C Rates Before Pa Gross Receipts Tax Gross-Up Factor (Line 5 / Line 6)	\$ 0.00133 per kWh	\$ 0.00161 per kWh	\$ (0.00653) per kWh	\$ 0.29 per kW	
8	Pa Gross Receipts Tax Gross-Up Factor [1 / (1-T) with T = 5.90% Pa Gross Receipts Tax in Base Rates]	<u>1.062699</u>	<u>1.062699</u>	<u>1.062699</u>	<u>1.062699</u>	
9	Proposed Phase IV EE&C-C Rates Effective June 1, 2021 (Line 7 X Line 8)	<u><u>\$ 0.00142</u></u> per kWh	<u><u>\$ 0.00171</u></u> per kWh	<u><u>\$ (0.00694)</u></u> per kWh	<u><u>\$ 0.31</u></u> per kW	
10	Percentage of Projected Program costs to allocate SWE cost	49.51%	27.19%	0.10%	23.19%	100.00%

(A) Pennsylvania's Act 129 of 2008 states that the maximum annual cost recovery for Energy Efficiency and Conservation Programs cannot exceed 2% of the electric distribution company's total annual revenue as of December 31, 2006.
(B) For purposes of the Industrial class rate calculation, the billing unit is equal to the Peak Load Share in kW's
(C) All costs and revenue estimates are current budgets, and subject to modification at a future date. The Statewide Evaluator Cost utilized is the estimate based on the expense to be incurred for Phase IV.
(D) Non-Profit Customer Class Phase III deferral balance has been consolidated with the Commercial Customer Class for Phase IV.

**Projected West Penn Power Company's Phase IV Energy Efficiency and Conservation ("EE&C-C") Charge ("EE&C-C") Rates
For the Rate Period June 1, 2021 through May 31, 2022**

Line No.	Description	West Penn Power Residential Customer Class (1)	West Penn Power Commercial Customer Class (2)	West Penn Power Street Lighting Customer Class (3)	West Penn Power Industrial Customer Class (4)	West Penn Power Total (5)
1	Total West Penn Power Projected Program Costs for the period June 1, 2021 through May 31, 2022 subject to 2% cap	\$ 11,016,757	\$ 6,187,866	\$ 19,287	\$ 5,913,021	\$ 23,136,931
2	West Penn Power's Share of Statewide Evaluator Costs (June 1, 2021 through May 31, 2022)	<u>114,277</u>	<u>64,187</u>	<u>200</u>	<u>61,336</u>	<u>240,000</u>
3	Total West Penn Projected Program Costs including Statewide Evaluator Cost for the period June 1, 2021 through May 31, 2022 (Line 1 + Line 2)	\$ 11,131,034	\$ 6,252,052	\$ 19,487	\$ 5,974,357	\$ 23,376,931
4	Phase III over/(under) collection through October 31, 2020	<u>2,188,281</u>	<u>1,535,768</u>	<u>261,151</u>	<u>1,829,077</u>	<u>5,814,277</u>
5	Total to be collected June 1, 2021 to May 31, 2022 (Line 3 - Line 4)	<u>\$ 8,942,753</u>	<u>\$ 4,716,284</u>	<u>\$ (241,664)</u>	<u>\$ 4,145,280</u>	<u>\$ 17,562,654</u>
6	Customer Class Projected Kilowatt-Hours ("kWh") Delivered or Peak Load Contribution Kilowatt ("kW") for June 1, 2021 - May 31, 2022	6,845,942,384 kWhs	4,266,025,444 kWhs	29,727,217 kWhs	16,409,642 kWhs	
7	Phase IV EE&C-C Rates Before Pa Gross Receipts Tax (Line 5 / Line 6)	\$ 0.00131 per kWh	\$ 0.00111 per kWh	\$ (0.00813) per kWh	\$ 0.25 per kW	
8	Pa Gross Receipts Tax Gross-Up Factor [1 / (1-T) with T = 5.90% Pa Gross Receipts Tax in Base Rates]	<u>1.062699</u>	<u>1.062699</u>	<u>1.062699</u>	<u>1.062699</u>	
9	Proposed Phase IV EE&C-C Rates Effective June 1, 2021 (Line 7 X Line 8)	<u><u>\$ 0.00139 per kWh</u></u>	<u><u>0.00117 per kWh</u></u>	<u><u>\$ (0.00864) per kWh</u></u>	<u><u>\$ 0.27 per kW</u></u>	
10	Percentage of Projected Program costs to allocate SWE cost	47.62%	26.74%	0.08%	25.56%	100.00%

(A) Pennsylvania's Act 129 of 2008 states that the maximum annual cost recovery for Energy Efficiency and Conservation Programs cannot exceed 2% of the electric distribution company's total annual revenue as of December 31, 2006.
 (B) For purposes of the Industrial class rate calculation, the billing unit is equal to the Peak Load Share in kWhs.
 (C) All costs and revenue estimates are current budgets, and subject to modification at a future date. The Statewide Evaluator Cost utilized is the estimate based on the expense to be incurred for Phase IV.
 (D) Non-Profit Customer Class Phase III deferral balance has been consolidated with the Commercial Customer Class for Phase IV.

Met-Ed/Penelec/Penn Power/West Penn Statement No. 2-R

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

METROPOLITAN EDISON COMPANY
Docket No. M-2020-3020820

PENNSYLVANIA ELECTRIC COMPANY
Docket No. M-2020-3020821

PENNSYLVANIA POWER COMPANY
Docket No. M-2020-3020822

WEST PENN POWER COMPANY
Docket No. M-2020-3020823

PHASE IV ENERGY EFFICIENCY AND CONSERVATION PLAN

**Prepared
Rebuttal
Testimony
of
Edward C. Miller**

LIST OF TOPICS ADDRESSED

Other Parties' Issues and Recommendations for the Phase IV Plan

Table of Contents

	Page
I. INTRODUCTION AND BACKGROUND	1
II. CAUSE-PA STATEMENT NO. 1	4
A. COMPREHENSIVE MEASURES.....	4
B. WEATHERIZATION.....	8
C. BEHAVIOR AND SCHOOL EDUCATION MEASURES.....	10
D. EFFICIENCY LEVELS FOR ELIGIBLE EQUIPMENT.....	13
E. ALLEGATION THAT CERTAIN MEASURES ARE “IMPLAUSIBLE” FOR LOW- INCOME CUSTOMERS.....	13
F. MULTIFAMILY.....	17
III. OCA STATEMENT NO. 1.....	20
A. BEHAVIORAL MEASURES	20
B. ALLOCATION OF COMMON COSTS.....	24
C. BIDDING DEMAND RESPONSE INTO PJM INTERCONNECTION LLC’S (“PJM”) FORWARD CAPACITY MARKET (“FCM”).....	25
IV. PSU STATEMENT NO. 1.....	29

1 **I. INTRODUCTION AND BACKGROUND**

2 **Q. Please state your name and business address.**

3 A. My name is Edward C. Miller, and my business address is 800 Cabin Hill Drive,
4 Greensburg, PA 15601.

5
6 **Q. Mr. Miller, by whom are you employed and in what capacity?**

7 A. I am employed by FirstEnergy Service Company, which is a direct subsidiary of
8 FirstEnergy Corp. (“FirstEnergy”), as Manager, Compliance and Development in the
9 Energy Efficiency Department. I report to the Director, Energy Efficiency Compliance
10 and Reporting. I am responsible for compliance and development activities related to
11 energy efficiency and conservation (“EE&C”) programs for the FirstEnergy utilities in
12 Ohio, Maryland, New Jersey, Pennsylvania, and West Virginia. This primarily involves
13 the development of programs and filings to meet the FirstEnergy utilities’ EE&C and/or
14 peak demand reduction (“PDR”) requirements and obligations.

15
16 **Q. Did you previously submit testimony in this proceeding?**

17 A. Yes, I submitted direct testimony (Met-Ed/Penelec/Penn Power/West Penn Statement No.
18 2) in support of the Phase IV EE&C Plan proposed in this proceeding (“Phase IV Plan,”
19 “Proposed Plan,” or “Plan”) by Metropolitan Edison Company (“Met-Ed”), Pennsylvania
20 Electric Company (“Penelec”), Pennsylvania Power Company (“Penn Power”), and West
21 Penn Power Company (“West Penn”) (collectively, the “Companies”).

22

1 **Q. Please briefly describe the subject matter of your rebuttal testimony in this**
2 **proceeding.**

3 A. I will respond to certain issues raised in the direct testimony submitted by the other parties'
4 witnesses, specifically: (1) the direct testimony of Geoffrey C. Crandall (OCA Statement
5 No. 1) submitted on behalf of the Office of Consumer Advocate ("OCA"); (2) the direct
6 testimony of Jim Grevatt (CAUSE-PA Statement No. 1) submitted on behalf of the
7 Coalition for Affordable Utility Services and Energy Efficiency in Pennsylvania
8 ("CAUSE-PA"); and (3) the direct testimony of James L. Crist (PSU Statement No. 1)
9 submitted on behalf of The Pennsylvania State University ("PSU").

10

11 **Q. Are there any exhibits that you are sponsoring with your rebuttal testimony?**

12 A. Yes. Attached to my rebuttal testimony as Met-Ed/Penelec/Penn Power/West Penn Exhibit
13 ECM-1R is a copy of CAUSE-PA's answer to FE to CAUSE-PA-I-3.

14

15 **Q. Do you have any general comments about the other parties' issues and**
16 **recommendations raised in their direct testimony?**

17 A. Yes, I observe that no party has disputed that the Companies' proposed Phase IV Plan will
18 meet their required electric consumption and peak demand reduction targets. In fact, OCA
19 witness Crandall agrees that the Companies' plans comply with the Pennsylvania Public
20 Utility Commission's ("Commission") requirements regarding cost-effectiveness, low-
21 income requirements, budgets, and incentives. (OCA St. No. 1, p. 18-19.) The other
22 parties, instead, critique various portions of the Companies' proposed Phase IV Plan,

Met-Ed/Penelec/Penn Power/West Penn Statement No. 2-R

1 recommending that the Companies add new measures, eliminate certain measures, and
2 substantially change other measures.

3 The critical flaw with most of these recommendations is that they are not supported
4 by any in-depth study, evaluation, or analysis on the impact that these recommendations
5 will have on the Plan or individual programs' savings, costs, or cost-effectiveness
6 calculations. Because the Companies' Phase IV Plan is subject to the budget cap
7 established under Act 129, the Companies cannot simply incorporate all of these proposed
8 changes to the Companies' EE&C programs and measures in the Phase IV Plan without a
9 thorough analysis of their impact. If the Companies did, they could end up with a Phase
10 IV Plan that may not achieve the Companies' required savings targets and other
11 requirements, may exceed the budget cap under Act 129, or both. The Phase IV Plan is a
12 carefully-balanced portfolio that offers a broad variety of EE&C programs and measures
13 to meet all of the Companies' Phase IV requirements within the prescribed 2% cost cap.
14 And once one of the Companies' programs is modified to add, eliminate, or substantially
15 change measures, then the entire portfolio is disrupted.

16 Another important consideration is that the Companies bear significant compliance
17 risk if they fail to meet the required energy savings, coincident peak demand reduction,
18 and low-income savings targets. None of the other parties in this proceeding are subject to
19 millions of dollars of civil penalties if the Companies fail to achieve those targets.
20 Therefore, the Companies must have substantial discretion to design their EE&C programs
21 as necessary to achieve their Phase IV requirements.

1 **II. CAUSE-PA STATEMENT NO. 1**

2 **A. COMPREHENSIVE MEASURES**

3 **Q. CAUSE-PA witness Grevatt alleges that the Companies' proposed Low-Income**
4 **Energy Efficiency Program "fail[s] to meet the level of comprehensiveness provided**
5 **for in the Commission's directives" and that too little emphasis is placed on**
6 **comprehensive measures as compared to behavioral, school education, and other low-**
7 **impact measures that comprise the majority of the projected low-income savings.**
8 **(CAUSE-PA St. No. 1, pp. 4, 6, 21, 30-32.) Would you please respond?**

9 A. I disagree. The Companies' programs were designed to address both educational and initial
10 cost barriers and to tap a variety of delivery channels and vendors to support customer
11 engagement, education, and participation. The EE&C Plan incorporates both near-term
12 and longer-term energy saving opportunities for customers, includes direct or targeted
13 programs that engage customers (such as low-income customers), and serves as a portal
14 for other program offerings because they provide customers with energy efficiency
15 education as well as information regarding other program services and opportunities upon
16 which they can act.

17 Contrary to Mr. Grevatt's belief, the Companies placed an emphasis on
18 comprehensive measures in their Phase IV Plan. Indeed, the Phase IV Plan provides
19 several opportunities for customers interested in whole home/comprehensive solutions that
20 encourage customers to consider a holistic approach to energy efficiency. More
21 specifically, the Companies promote and provide comprehensive measures to low-income
22 customers, including appliances, whole house and whole building treatments through the
23 low-income Appliances, Weatherization and Multifamily subprograms as well as

Met-Ed/Penelec/Penn Power/West Penn Statement No. 2-R

1 incentives for efficient new home construction through the low-income New Homes
2 subprogram. In fact, over 40% of the projected low-income savings comes from these
3 subprograms, while only 6% of the low-income budget is allocated to the low-income
4 Behavioral and School Education subprograms in total across the Companies.

5 However, the Companies must deliver a broad portfolio of EE&C programs and
6 measures to customers and cannot solely rely on comprehensive measures to achieve their
7 savings targets within budgets. Therefore, the Companies' programs incorporate strategies
8 to change behaviors and include incentives to address the initial cost barrier to promote the
9 participation of all customers. The programs also provide opportunities for prescriptive
10 equipment and direct install, so that customers who are unable or unwilling to undertake
11 whole home/comprehensive solutions are still able to increase efficiency.

12 As a result, the Companies' Phase IV Plan is a carefully-balanced portfolio
13 designed to meet all of the Companies' Phase IV requirements, including offering
14 comprehensive programs and measures. The Plan includes a broad portfolio of programs
15 for the residential and the commercial and industrial customer sectors. The Plan also
16 provides both a well-reasoned and balanced set of measures to each customer class and a
17 reasonable mix of programs for all customers. In doing so, the Companies' Phase IV Plan
18 not only complies with all Commission directives, including providing comprehensive
19 measures, but also recognizes the value of providing customers with energy efficiency
20 education and information regarding other program services and opportunities upon which
21 they can act, as well as engaging customers through different channels and vendors to
22 support broader levels of customer engagement, education, and participation among the

1 collective program offerings, something that Mr. Grevatt fails to recognize in his
2 testimony.

3
4 **Q. Mr. Grevatt also contends that the Low-Income Energy Efficiency Program is**
5 **“inconsistent with the Statewide Evaluator’s (“SWE”) cost analysis that suggested**
6 **reduced annual savings as a trade-off for more comprehensive, longer-lived savings.”**
7 **(CAUSE-PA St. No. 1, p. 30.) Do you agree?**

8 A. No. The Companies developed the Phase IV Plan in consideration of many factors
9 including, but not limited to, the Pennsylvania Act 129 - Phase IV Energy Efficiency and
10 Peak Demand Reduction Market Potential Study Report (“PA MPS”) prepared for the
11 Commission by the Pennsylvania Statewide Evaluation Team and the Commission’s Phase
12 IV Implementation Order. The PA MPS included “Special Considerations for Lighting”
13 and “Special Considerations for Home Energy Reports,” which significantly reduced the
14 savings potential in the residential sector from lighting and Home Energy Reports for Phase
15 IV (see pages 16-18 of the PA MPS). Both of these factors were explicitly factored into
16 the Companies’ Phase IV Plans, including the Low-Income Energy Efficiency Program,
17 which caused a shift to more comprehensive measures or measures with longer lives. As
18 such, the Low-Income Energy Efficiency Program is entirely consistent with the SWE’s
19 cost analysis as factored into the PA MPS.

20
21 **Q. Mr. Grevatt also recommends that the Commission direct the Companies “to target**
22 **replacement of electric resistance heating and water heating with heat pumps and**
23 **heat pump water heaters in qualifying households, such that LI-appliance savings,**

1 including these measures, is equivalent to 10% of the Companies' low-income
2 savings." (CAUSE-PA St. No. 1, pp. 7, 33.) Do you agree with these
3 recommendations?

4 A. No. Mr. Grevatt admitted in discovery that he did not perform any study or evaluation
5 about the impact of any of these recommendations on the Phase IV Plan as a whole or any
6 individual programs' costs, savings, or cost-effectiveness. (Met-Ed/Penelec/Penn
7 Power/West Penn Exhibit ECM-1R [FE to CAUSE-PA-I-3].) As such, I have serious
8 concerns related to the market potential and costs associated with this recommendation, as
9 well as the ability of the Companies to meet their Phase IV requirements within their
10 budgets if Mr. Grevatt's recommendation were adopted.

11 In addition, Mr. Grevatt mischaracterizes the design of the Companies' program by
12 stating that the program does not provide a provision for replacing appliances with more
13 efficient ones. In fact, the Low-Income Energy Efficiency Program does provide for the
14 replacement of refrigerators and freezers as specifically listed in Table 14 of the
15 Companies' Plan. Mr. Grevatt also does not recognize that many customers maintain older
16 inefficient second appliances, which the appliance recycling subprogram targets to remove
17 from use.

18 Regarding Mr. Grevatt's specific measure recommendations, the replacement of
19 electric resistance baseboard heat with heat pumps requires the installation of a heat
20 exchanger/air handling system as well as ductwork, which can be intrusive in a customer's
21 home and require a significant investment. The home may also require additional
22 insulation and air sealing to support the efficiency of the installation and meet customer
23 satisfaction, which is a concern based on the change in the type of heat, i.e., forced-air

1 system. Additionally, the Companies already target the installation of heat pump water
2 heaters through the Low-Income Energy Efficiency Program, as shown in Table 14 of the
3 Companies' Plan. In addition to the sizeable cost, the installation of heat pump water
4 heaters requires homes to have acceptable space and space conditioning, something that is
5 determined on a case-by-case basis.

6 Furthermore, many of the appliance measures, as well as these two measures, have
7 lower demand contributions than other measures. As such, adding an arbitrary requirement
8 to target a set amount of savings and the adoption of these two measure recommendations
9 from appliances, in addition to adding significant costs to the program, would require
10 offsetting reductions elsewhere in the Plan and could undermine the ability of the
11 Companies to achieve their Phase IV energy and coincident peak demand savings
12 requirements within budgets, thus increasing their risk of non-compliance.

13
14 **B. WEATHERIZATION**

15 **Q. CAUSE-PA witness Grevatt recommends that the Companies increase their planned**
16 **investments in the WARM Extra Measures program sub-component and the**
17 **Weatherization (WARM PLUS) Program sub-component “by a large margin,**
18 **equivalent to a doubling of the sub-component budgets” proposed by the Companies.**
19 **(CAUSE-PA St. No. 1, p. 23.) Do you agree with this recommendation?**

20 **A.** No. Again, Mr. Grevatt stated in discovery that he did not perform any study or evaluation
21 of the impact of this recommendation on the Phase IV Plan as a whole or any of the
22 individual programs' costs, savings, or cost-effectiveness. (Met-Ed/Penelec/Penn
23 Power/West Penn Exhibit ECM-1R [FE to CAUSE-PA-I-3].) Therefore, I have serious

Met-Ed/Penelec/Penn Power/West Penn Statement No. 2-R

1 concerns related to both the ability to achieve and costs associated with this
2 recommendation, which I believe will hinder the Companies' opportunity to achieve their
3 Phase IV requirements within budgets. Both of these components of the Companies'
4 Weatherization subprogram are planned to be coordinated with the delivery of the
5 Companies' existing Low-Income Usage Reduction Program ("LIURP") by tapping the
6 considerable expertise and existing infrastructure of LIURP contractors, which consist of
7 both community based organizations ("CBOs") and private contractors. In designing the
8 Weatherization subprogram, the Companies carefully considered this coordination as well
9 as their experience in delivering this offering and the infrastructure necessary to support it
10 in developing their participation projections. Simply doubling the projections would most
11 definitely strain and/or exceed the capacity of the infrastructure, create coordination issues,
12 and result in unreasonable and unattainable projections.

13 In addition, the Weatherization subprogram to the Low-Income Energy Efficiency
14 Program is among the costliest subprograms in the Companies' Plan, on both a dollars per
15 megawatt-hour (\$/MWh) and dollars per megawatt (\$/MW) basis. As such, increasing
16 participation projections by even a small magnitude will be very costly, which would
17 require offsetting budget reductions elsewhere in the Plan and could undermine the ability
18 of the Companies to achieve their Phase IV requirements within budgets while increasing
19 their risk of non-compliance.

20

1 **C. BEHAVIOR AND SCHOOL EDUCATION MEASURES**

2 **Q. CAUSE-PA witness Grevatt believes that the Companies’ proposed Behavior and**
3 **School Education – LI measures do not provide “meaningful” or “significant” savings**
4 **to low-income households. (CAUSE-PA St. No. 1, pp. 24-26.) Do you agree?**

5 **A.** No. As I discussed earlier, the Companies’ programs are designed to address both
6 educational and initial cost barriers and to tap a variety of delivery channels and vendors
7 to support broader levels of customer engagement, education, and participation. The
8 EE&C Plan includes direct or targeted programs that engage customers, including low-
9 income customers, and that serve as a portal for other program offerings because they
10 provide customers with energy efficiency education as well as information regarding other
11 program services and opportunities upon which they can act. The Companies’ Behavioral
12 and School Education subprogram offerings for low-income customers are key elements
13 of the Companies’ Low-Income Energy Efficiency Program in these regards.

14 Additionally, Mr. Grevatt states in his testimony that the Companies have more
15 low-income customers than are reported and would like to see the comprehensive programs
16 increased to target greater participation. As discussed earlier, the Plan’s design recognizes
17 the value of providing customers with energy efficiency education and information
18 regarding other program services and opportunities upon which they can act. Program
19 offerings that engage customers, such as the Behavioral and School Education subprogram
20 offerings, are key components of the Phase IV Plan’s design to engage customers through
21 different channels and vendors to support broader levels of customer engagement,
22 education, and participation among the collective program offerings. In fact, customer
23 engagement, awareness, and education (such as what is provided under the Behavioral and

1 School Education subprograms) helps to identify new or additional low-income customers
2 to serve under other program offerings. As such, the low-income Behavioral and School
3 Education subprogram offerings should not be measured based solely on their individual
4 projections as Mr. Grevatt advances in his testimony. They should also be recognized for
5 their immense value in engaging customers with education and for promoting and
6 achieving larger amounts of participation and energy savings in other low-income program
7 offerings, including the comprehensive programs as Mr. Grevatt advocates.

8
9 **Q. CAUSE-PA witness Grevatt recommends that the Commission prohibit the**
10 **Companies from counting savings from School Education – LI toward the low-income**
11 **savings target and replace School Education – LI’s planned participation levels with**
12 **Weatherization (WARM PLUS) and WARM Extra Measures. (CAUSE-PA St. No.**
13 **1, pp. 6, 33.) Do you agree?**

14 **A.** No. Mr. Grevatt’s recommendation is founded upon his criticisms of the low-income
15 School Education subprogram, which, as explained previously, are short sighted and
16 should be disregarded. Moreover, Mr. Grevatt contends that the low-income School
17 Education subprogram “contradict[s] the spirit and letter of the Commission’s Phase III
18 Order in which it rejected the Phase II practice of allocating savings from non-specific LI
19 programs toward meeting its low-income requirements based on assumptions of low-
20 income participation.” (CAUSE-PA St. No. 1, p. 25.) As explained in the Phase IV Plan,
21 the low-income School Education subprogram will be targeted to schools in areas that have
22 a higher population of low-income customers. (Phase IV Plan, p. 58.) The subprogram is
23 a specific low-income program offering and is not merely counting savings from non-

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1 specific low-income programs. The Company's low-income School Education
2 subprogram is both specifically targeted to and customized (both the quantity and contents)
3 for low-income customers. The Companies target the low-income School Education
4 subprogram to schools that receive Title 1 funds (these are schools that receive federal
5 funds to support the academic achievement of schools with large concentrations of low-
6 income students). The Companies also use a wealth score that is determined based on
7 census data (this equates to schools that have a large concentration of low-income families
8 with a median household income of \$45,000 or less) to target the participation of additional
9 schools and low-income customers.

10 In addition, these schools and low-income customers truly value this subprogram.
11 The Companies' experience during Phase III is that these schools are quick to sign up for
12 this program offering, as the schools typically cannot afford assemblies and/or special
13 instructors to teach additional lessons. In response, this subprogram provides low-income
14 students with energy efficiency education and awareness. Specifically, it provides
15 customized energy efficiency kits to be used at home to further engage low-income
16 families, promote adoption of energy efficiency and conservation mindsets and measures,
17 and give low-income families information on other energy efficiency programs that are
18 available to them, including the LIURP and Companies' other comprehensive program
19 offerings.

20 Thus, the Companies' low-income School Education subprogram is a specific low-
21 income offering and is one of the key elements of the Companies' Low-Income Energy
22 Efficiency Program that helps to identify, engage, and promote the participation of low-
23 income customers in the collective program offerings.

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D. EFFICIENCY LEVELS FOR ELIGIBLE EQUIPMENT

Q. Mr. Grevatt also criticizes the Companies for allegedly failing to maximize savings for low-income customers by focusing on lower efficiency clothes washers and refrigerators instead of ones with higher efficiency levels. (CAUSE-PA St. No. 1, pp. 26-27.) Based on those criticisms, he recommends that the Companies be directed “to prioritize the highest levels of equipment efficiency when varying levels are available (such as with clothes washers and refrigerators) in order to provide low-income participants with the greatest level of savings.” (CAUSE-PA St. No. 1, pp. 6, 33.)

Would you please respond?

A. Mr. Grevatt misunderstands the Companies’ Plan design, which is to promote efficient appliances, including both EnergyStar rated appliances as well as efficiency tiers above EnergyStar where applicable. The Companies’ participation projections were not intended to imply that the Companies’ do not or will not promote the higher efficient tiers; however, EnergyStar rated appliances are the most easily recognized and widely available energy efficient appliances in the market and have lower incremental costs than higher efficiency tiers. So, while the Companies do promote the higher efficiency tiers, the Companies’ participation projections are based on their experience with actual participation that takes these factors into account.

E. ALLEGATION THAT CERTAIN MEASURES ARE “IMPLAUSIBLE” FOR LOW-INCOME CUSTOMERS

Q. CAUSE-PA witness Grevatt also contends that it is “implausible to believe” that some of the proposed low-income measures, such as Pool Pump Variable Speed and EV

1 **Charging Cord – Level 2 – RES, would be implemented in a low-income household,**
2 **unless the Companies cover the entire cost of those measures. (CAUSE-PA St. No. 1,**
3 **pp. 5, 28-29.) He then recommends that the Companies be directed “to eliminate all**
4 **requirements for contributions to measure costs from low-income households and to**
5 **re-calculate their planned LI savings to include only measures that can plausibly be**
6 **expected to be installed by low-income households.” (CAUSE-PA St. No. 1, pp. 7, 33.)**

7 **Do you agree?**

8 A. I disagree. Mr. Grevatt again misunderstands the Companies’ Plan design, which in this
9 case is to provide the opportunity to all income qualified customers to participate in the
10 low-income appliance rebate subprogram, to access measures that are available to all
11 residential customers, and to receive an enhanced incentive to better support their
12 participation. The Companies’ participation projections for these measures fully align with
13 Mr. Grevatt’s position that some of the measures are not likely to have much participation.
14 Again, the Companies’ Plan design in this regard is to provide the opportunity for
15 participation by low-income customers in a wide variety of measures.

16 Furthermore, the Companies do cover the entire cost of certain measures through
17 the Weatherization and/or Multifamily subprograms of the Low-Income Energy Efficiency
18 Program, in addition to the Companies’ LIURP with which they coordinate (Phase IV Plan,
19 Table 14). The Appliances subprogram is designed to provide additional opportunity to all
20 income qualified customers for measures that are available to all residential customers,
21 albeit with greater incentives to help overcome the first cost barriers to participation. In
22 addition, as discussed earlier in my testimony, many of the appliance measures have lower
23 demand contributions than other measures in the Plan. As such, increasing the enhanced

1 incentives to cover the full cost under the Appliances subprogram could create competition
2 or coordination issues with the other low-income subprogram offerings. It also would add
3 costs to the program, which would require offsetting reductions elsewhere in the Plan and
4 could undermine the ability of the Companies to achieve their Phase IV energy and
5 coincident peak demand savings requirements within budgets, thus increasing their risk of
6 non-compliance.

7
8 **Q. Did the Companies include these measures to “artificially inflate the breadth and**
9 **range of measures that are nominally available to low-income households” or**
10 **“reduce[] transparency about what the Companies actually plan to implement for**
11 **their low-income customers”? (CAUSE-PA St. No. 1, pp. 27-28.)**

12 A. No. As I discussed above, the Companies included these measures so that income qualified
13 customers have the opportunity to access measures that are available to all residential
14 customers and to receive an enhanced incentive to better support their participation. Mr.
15 Grevatt’s contention that the Companies included these measures to “artificially inflate the
16 breadth and range of measures that are nominally available to low-income households” is
17 completely unsupported. Over 38% of the measures in the Companies’ Phase IV Plans are
18 provided directly or targeted to low-income customers (Phase IV Plan, pp. 134-36). This
19 percentage significantly exceeds the target percentages in the Commission’s Phase IV
20 Implementation Order, which are all less than 11% (Phase IV Implementation Order, p.
21 35), thereby making these few additional measures meaningless in this regard. Thus, Mr.
22 Grevatt’s claim is meritless.

23

1 **Q. Mr. Grevatt argues that the Companies “should not be allowed to count the savings**
2 **from” the measures that likely will not be used by low-income customers “toward**
3 **[their] low-income savings goal, unless the programs are adjusted so that a substantial**
4 **number of low-income customers are able to participate.” (CAUSE-PA St. No. 1, p.**
5 **29.) Do you agree?**

6 A. Absolutely not. Mr. Grevatt’s recommendation to not include savings from low-income
7 participation in some appliance rebate measures based on the level of participation makes
8 no sense, as this would decrease the savings opportunities for customers. Doing so would
9 indicate that Mr. Grevatt also does not agree with the design of comprehensive programs,
10 such as LIURP, as well as many other programs that include measures that have limited
11 levels of participation. As stated above, the Companies’ Plan is designed to provide
12 income qualified customers the opportunity to access measures that are available to all
13 residential customers and to receive enhanced rebates for these measures. The Companies’
14 participation projections for these measures fully align with Mr. Grevatt’s position that
15 some of the measures are not likely to have much participation. As such, the design of the
16 low-income appliance rebate offering is akin to the design of the low-income
17 weatherization subprogram in that there are varying degrees of participation in the
18 measures offered, all of which contribute in varying degrees toward the achieved energy
19 savings.

20 The Companies must be allowed to count the savings attributable to low-income
21 measures that are implemented by low-income customers under the Low-Income Energy
22 Efficiency Program, regardless of Mr. Grevatt’s belief that the majority of low-income
23 customers will not install these measures. The ability to count savings from a measure

1 depending on whether a designated number of customers within a given sector adopt the
2 measure would preclude the opportunity for many energy efficiency measures that might
3 have limited participation for many reasons and restrict the ability of the EDCs to achieve
4 their energy savings targets. One customer may have energy efficient appliances but be a
5 prime candidate for behavioral measures. On the other hand, a customer well-educated
6 about energy efficiency may need newer, more energy efficient appliances. Likewise, there
7 may be low-income customers who can benefit from the measures criticized by Mr.
8 Grevatt. The bottom line is that the Companies proposed a broad portfolio of measures,
9 recognizing that customers often have individual and sometimes very different needs.
10 Thus, Mr. Grevatt's approach of denying the Companies' ability to count savings from
11 implemented measures simply because the measures were not popular with other customers
12 is completely unreasonable.

13
14 **F. MULTIFAMILY**

15 **Q. CAUSE-PA witness Grevatt argues that the Companies need to place a greater focus**
16 **on affordable multifamily housing and recommends that the Companies be directed**
17 **“to increase savings from multifamily low-income housing, including both master-**
18 **metered and split-metered properties.” (CAUSE-PA St. No. 1, pp. 7, 29, 33.) Do you**
19 **agree?**

20 **A.** No. The Companies' Phase IV Plan design already places a greater focus on multifamily
21 housing than the Phase III Plan, as evidenced by it including a multifamily subprogram and
22 additional measures in each sector of the Phase IV Plan. More specifically, the Phase IV
23 Plan includes a multifamily subprogram in the Residential Energy Efficient Homes

1 Program (Phase IV Plan, p. 38), in the Low-Income Energy Efficiency Program (Phase IV
2 Plan, p. 39), and in the Energy Solutions for Business Program (Phase IV Plan, p 69).
3 Additionally, the Companies' Phase IV Plan also places a greater emphasis on affordable
4 multifamily housing, as evidenced by it including specific low-income multifamily
5 measures in the multifamily subprograms included in the Low-Income Energy Efficiency
6 Program and the Energy Solutions for Business Program. Furthermore, the Companies'
7 designed the multifamily subprograms consistently across the sectors for the full range of
8 multifamily buildings, including whether the units are individually metered or
9 commercially metered, with a focus on serving the entire building consistently regardless
10 of metering. Moreover, the multifamily subprogram design includes direct install measures
11 and incentives for additional prescriptive measures or retrofit projects in both common
12 areas and tenant spaces, also regardless of metering, and with in-unit measures provided at
13 no-incremental cost for income-qualified tenants in multifamily housing.

14 The Companies developed the projections for the multifamily subprograms based
15 on many factors, including, but not limited to, their experience in Phase III, input from
16 their current conservation service providers ("CSPs"), stakeholders, and budgets. The
17 multifamily subprograms are some of the more costly subprograms in the Companies' Plan,
18 on both a \$/MWh and \$/MW basis. As such, increasing participation projections will be
19 very costly, which would require offsetting reductions elsewhere in the Plan that may
20 increase the Companies' risk of non-compliance by potentially undermining the
21 Companies' ability to achieve their Phase IV requirements within budgets.

22

1 **Q. Mr. Grevatt believes that the fraction of savings coming from commercially metered**
2 **low-income housing units is small and “virtually non-existent for tenants.” (CAUSE-**
3 **PA St. No. 1, p. 29.) Would you please respond?**

4 A. I disagree. As discussed earlier, the Companies developed the projections for the
5 multifamily subprograms, including the commercially metered low-income housing, based
6 on many factors. Some of the Companies’ experience indicates that the majority of
7 multifamily units are individually metered and not commercially metered. As such, the
8 projections for commercially metered low-income housing units are smaller than those for
9 the individually metered housing units, resulting in the commercially metered multifamily
10 subprogram savings being more limited, due to the limited opportunities remaining in the
11 common areas.

12 In addition, I would also like to highlight that the Companies have made special
13 efforts during Phase III to identify and target the participation of both multifamily buildings
14 and affordable multifamily buildings, including commercially metered affordable
15 multifamily housing, and that the Companies plan to continue these efforts in Phase IV.
16 The multifamily subprograms will strive to coordinate with national and state housing
17 programs and include outreach to property owners, managers, associations, tenant groups,
18 municipalities, and CBOs about the availability and benefits of the subprograms and how
19 to participate.

20
21 **Q. Mr. Grevatt also alleges that “[m]aster-metered low-income multifamily properties**
22 **and those that have split metering, in which the living units are on individually**
23 **metered residential accounts and the common areas are on commercial meters, need**

1 **unique treatment by programs to ensure that they receive savings opportunities.”**

2 **(CAUSE-PA St. No. 1, p. 30.) Please respond.**

3 A. As discussed earlier, the Companies’ multifamily subprograms were designed for the full
4 range of multifamily buildings, including whether the units are individually metered or
5 commercially metered, with a focus on serving the entire building consistently regardless
6 of metering. The multifamily subprograms’ design includes direct install measures and
7 incentives for additional prescriptive measures or retrofit projects in both common areas
8 and tenant spaces, regardless of metering. Additionally, in-unit measures, such as water
9 heating measures, efficient lighting, advanced power strips, and replacement of
10 refrigerators and freezers, are provided at no-incremental cost for income-qualified tenants
11 in multifamily housing. And as discussed above, the Companies have made special efforts
12 during Phase III to identify and target both multifamily buildings and affordable
13 multifamily buildings regardless of metering, and the Companies plan to continue these
14 efforts in Phase IV. As such, the multifamily subprograms’ design is both scalable and
15 adaptable to the full range of multifamily buildings regardless of metering, building type,
16 building space, and income classification and recognizes the diversity of this customer
17 segment by providing unique treatment to capture savings opportunities.

18
19 **III. OCA STATEMENT NO. 1**

20 **A. BEHAVIORAL MEASURES**

21 **Q. OCA witness Crandall alleges that the Phase IV Plan is inconsistent with the PUC’s**
22 **Phase IV Implementation Order because the Plan relies on behavioral modification**
23 **subprograms. (OCA St. No. 1, p. 3.) Do you agree?**

Met-Ed/Penelec/Penn Power/West Penn Statement No. 2-R

1 A. No. The Behavioral subprograms included in the Companies’ Phase IV Plan educate
2 customers regarding their home energy usage and provide recommendations to implement
3 and adopt energy efficiency and conservation measures to reduce their energy usage.
4 These subprograms provide customized home energy reports about each customer’s energy
5 usage, as well as analysis regarding their usage over time, with specific tips and
6 recommendations that promote energy efficiency and conservation opportunities and
7 additional program offerings available to them. The reports help customers: (1) understand
8 how their energy consumption compares to similarly sized and equipped homes; (2)
9 understand how their energy use changes over time and across seasons; and (3) develop
10 goals and strategies to reduce their energy use. This subprogram also offers an online audit
11 tool that similarly provides recommendations for home energy efficiency and conservation
12 opportunities and information regarding other programs that may benefit the customer.
13 The online audit tool converts the customers’ input of their energy usage characteristics
14 into information the customers can understand and act upon, such as the cost of heating
15 and cooling their homes, a usage comparison graph, and tips on how to save energy.

16 As I discussed earlier, the Companies developed the Phase IV Plan in consideration
17 of many factors, including, but not limited to, the PA MPS and the Commission’s Phase
18 IV Implementation Order, which was based on the PA MPS. The PA MPS included
19 “Special Considerations for Home Energy Reports,” which was explicitly factored into the
20 Companies’ Phase IV Plan. The Companies’ programs are designed to address both
21 educational and initial cost barriers and to tap a variety of delivery channels and vendors
22 to support broader levels of customer engagement, education, and participation. The Phase
23 IV Plan includes direct or targeted programs that engage customers (such as low-income

1 customers) and that serve as a portal for other program offerings because they provide
2 customers with energy efficiency education as well as information regarding other program
3 services and opportunities upon which they can act. The Companies' Behavioral
4 subprograms are one of the key elements of the Companies' Phase IV Plan in these regards.

5 As a result, the Companies' Phase IV Plan is a carefully-balanced portfolio that
6 meets all of the Companies' Phase IV requirements, including offering a well-reasoned and
7 balanced set of measures to each customer class and a reasonable mix of programs for all
8 customers, including the Behavioral subprograms. The Phase IV Plan recognizes the value
9 of providing customers with energy efficiency education and information regarding other
10 program services and opportunities upon which they can act, as well as engaging customers
11 through different channels and vendors to support broader levels of customer engagement,
12 education, and participation among the collective program offerings, such as through the
13 Behavioral subprograms, which Mr. Crandall fails to recognize in his testimony.
14 Furthermore, the Phase IV Plan does not overly rely on savings from the Behavioral
15 subprograms. These subprograms account for less than 6% of the total energy savings at
16 less than 4% of the total budgets for the Companies.

17
18 **Q. As alleged support for his position, Mr. Crandall states that the Phase IV**
19 **Implementation Order directed the EDCs to “develop plans to achieve the most**
20 **lifetime energy savings per expenditure.” (CAUSE-PA St. No. 1, pp. 6, 8-9.) Do you**
21 **agree with his interpretation of the Order?**

22 A. No. In full, the passage reads, “we believe that EDCs should develop plans to achieve the
23 most lifetime energy savings per expenditure.” Phase IV Implementation Order, p. 91

1 (emphasis added). Moreover, Mr. Crandall fails to read the Commission’s statement in
2 context and omits any reference to the next sentence in the Commission’s Phase IV
3 Implementation Order, which states, “The Commission finds that EDCs must offer a
4 well-reasoned and balanced set of measures that are tailored to usage and to the potential
5 for savings and reductions for each customer class.” *Id.*, pp. 91-92.

6 As discussed earlier in my testimony, the Companies’ Phase IV Plan is a carefully
7 balanced portfolio that meets all of the Companies’ Phase IV requirements and the
8 Commission’s directives. The Phase IV Plan in no way overly relies on the Behavioral
9 subprograms and recognizes the value of providing customers with energy efficiency
10 education and information regarding other program services and opportunities upon which
11 they can act, as well as engaging customers through different channels and vendors to
12 support broader levels of customer engagement, education, and participation among the
13 collective program offerings.

14
15 **Q. Mr. Crandall recommends that the Companies scale back their behavior modification**
16 **programs and allocate those funds to the Weatherization subprogram within the**
17 **Low-Income Energy Efficiency Program or the Energy Efficient Products Program.**
18 **(OCA St. No. 1, pp. 8-9, 19-20.) Do you agree with this recommendation?**

19 A. No. As discussed above, the Companies’ Phase IV Plan is a carefully-balanced portfolio
20 that is designed to meet all of the Companies’ Phase IV requirements and to provide all
21 customers with a variety of energy savings opportunities through different channels and
22 vendors to support broader levels of customer engagement, education, and participation
23 among the collective program offerings, such as through the Behavioral subprograms. As

1 the Companies' Behavioral subprograms only represent approximately 6% of the
2 Companies' total projected energy savings, the Companies' Phase IV Plan in no way overly
3 relies on behavioral savings. Mr. Crandall's recommendation to scale them back is
4 unsupported and ignores the value of customer engagement and education provided under
5 the Behavioral subprograms.

6
7 **B. ALLOCATION OF COMMON COSTS**

8 **Q. OCA witness Crandall recommends that the Companies allocate common costs to**
9 **each customer class based on the ratio of class-specific approved budgeted programs**
10 **costs to total approved budgeted program costs. (OCA St. No. 1, pp. 13-14.) Do you**
11 **agree?**

12 A. No. Program specific costs budgeted in the Companies' Phase IV Plan include Incentives,
13 CSP Delivery, Marketing (CSP), and Evaluation, Measurement, and Verification
14 ("EM&V") as identified in Appendix B, Tables 10-1 to 10-3. Common costs budgeted in
15 the Companies' Plan include Program Design, Administrative (e.g., utility labor and
16 expenses, etc.), Marketing, and Other (e.g., External Legal). Appendix D, Table 1 of the
17 Plan provides more detail on these cost categories.

18 With over 70% of the common costs in the Plan being "Administrative" costs as
19 shown in Appendix B, Table 11, it is the Companies' experience that the program specific
20 administrative (e.g., non-incentive) costs to implement programs are the best indicator of
21 the Companies' level of effort and activity associated with their administrative activities
22 for each program. In other words, the Companies' level of effort and activity follows the
23 CSPs' level of effort with each program.

1 In addition, program incentives can vary among programs for many reasons and, if
2 included in the allocation methodology, would skew the allocations towards programs with
3 higher incentives. As an example, residential lighting programs that involve point of sale
4 incentives can have very large incentive budgets due to the sheer volume of participation
5 in these types of offerings. Commercial & Industrial custom programs can also involve
6 very large incentive budgets due to the sheer amount of energy savings (and calculated
7 incentives) that some custom projects generate. Neither of these programs necessarily
8 involves more “administrative” activity by the Companies as a result of having greater
9 incentive budgets.

10 For these reasons, I believe the common costs should continue to be allocated based
11 on their program specific administrative (e.g., non-incentive) costs, which is consistent
12 with the Companies’ allocations in Phase III, instead of being allocated based on the total
13 program specific costs including incentives, which would skew the allocations towards
14 programs with larger incentive budgets.

16 **C. BIDDING DEMAND RESPONSE INTO PJM INTERCONNECTION LLC’S**
17 **(“PJM”) FORWARD CAPACITY MARKET (“FCM”)**

18 **Q. OCA witness Crandall contends that: (1) the Companies did not adopt conservative**
19 **bidding strategy to limit deficiency charges and to avoid nominated resources not**
20 **clearing in the PJM FCM; and (2) the nomination processes lack transparency and**
21 **context. (OCA St. No. 1, pp. 16-17.) Would you please respond?**

22 **A.** I disagree with Mr. Crandall’s assertion that the Companies’ bidding strategy is not
23 conservative. Section 1.6 of the Companies’ Phase IV Plan states, “The Companies will
24 base their actual offer values on their experience evaluating programs for PJM capacity

1 market participation, taking into account capacity ownership rights, EM&V results and
2 cost, changing PJM market rules, and other variables to balance the risk and cost of
3 capacity market participation with the anticipated revenue.” More specifically, the
4 Companies have recognized that: (1) actual program participation results can vary from
5 what was projected in the Companies’ Phase IV plan for many reasons (e.g., uncertainty
6 with program ramp up, measure mix, customer adoption, market and economic conditions,
7 other factors beyond the control of the individual utilities, etc.); (2) not all of each year’s
8 expected megawatt (“MW”) reductions resulting from the energy efficiency program(s)
9 will be eligible for PJM; (3) the Companies may not have ownership rights to the savings;
10 and (4) not all of the expected MW reductions resulting from the energy efficiency
11 programs will be of a sufficient scale to warrant the costs to offer the resource or justify
12 the cost of the incremental measurement and verification of the resource’s savings.

13 Furthermore, Appendix C, Table C-3 of the Phase IV Plan provides a “potential
14 range” for each delivery year and includes a footnote stating the following:

15 The MW values provided in Appendix C, Table C-3 are an estimated range
16 of the EE&C Plan Potential PJM EE MW values for each installation period
17 and do not represent the actual EE values to be offered into PJM’s capacity
18 market. These estimates are based on projections used in the development
19 of the EE&C Plan, with adjustment for the addition of line losses,
20 eliminating non-PJM eligible measures, and Company experience with PJM
21 EE evaluations. These estimates are presented for information purposes
22 only and are subject to change for reasons, including but not limited to,
23 changes in program participation, baselines, measurement and verification
24 protocols or costs and PJM rules. The Company will determine the actual
25 EE Resource offers applicable to each PJM auction starting with the
26 2023/24 BRA scheduled to occur December 2021.

27
28 As such, the Companies’ Phase IV Plan has recognized the uncertainty with
29 participation in the PJM capacity market, and the Companies plan to factor this uncertainty
30 into the development of their offers at the time of each auction to limit the potential for

1 deficiency charges and nominated resources not clearing in the PJM FCM. Additionally,
2 the Companies plan to offer incremental energy efficiency resources not offered in the base
3 residual auctions (“BRA”) into incremental auctions as appropriate, including to true up
4 positions and limit deficiency charges.

5 The Companies also disagree that the nomination process lacks transparency. As
6 discussed above and included in Section 1.6 of the Companies’ Phase IV Plan, the
7 Companies described in detail their plan to develop their nominations. Section 1.6 of the
8 Companies’ Phase IV Plan also provides that all energy efficiency sell offer values and buy
9 bids shall remain confidential because they are considered market sensitive information;
10 however, they can be provided to Commission staff via confidential submission and after
11 the applicable auction results are available. The Companies are available to discuss such
12 results with the Commission as requested.

13
14 **Q. Mr. Crandall recommends that the Commission direct the Companies “to develop a**
15 **more transparent way to evaluate the amount of its Phase IV demand reduction that**
16 **could be nominated into the PJM FCM and to evaluate the risk-reward relationship**
17 **for their nomination strategies.” (OCA St. No. 1, pp. 17, 20.) Do you agree with this**
18 **recommendation?**

19 A. No. The recommendation goes well beyond the requirements in the Commission’s Phase
20 IV Implementation Order and should be rejected. As discussed above and included in
21 Section 1.6 of the Companies’ Phase IV Plan, the Companies described in detail their plan
22 to develop their nominations. In determining which energy efficiency resources to offer
23 into PJM, the Companies will adhere to PJM measure eligibility requirements pursuant to

1 PJM Manual 18B and rely on their experience with PJM energy efficiency evaluations. As
2 also included in Section 1.6, The costs of PJM measurement and verification are another
3 factor for consideration for energy efficiency resources being offered into PJM. A list of
4 the ineligible measures that were excluded from the Companies' "potential" MW
5 projections are also provided in Section 1.6 of the EE&C Plan. (Phase IV Plan, p.
6 26.) Before each BRA, the Companies will reevaluate the EE&C Plan projections and
7 develop offer values while considering many factors such as program performance,
8 implementation, rebate level changes, etc., as outlined in Section 1.6 of the Plan.

9
10 **Q. Mr. Crandall also recommends a series of steps "to provide more context and**
11 **connection between the EE&C Plan peak reductions and the amounts the Companies**
12 **expect to nominate into the PJM capacity markets." (OCA St. No. 1, pp. 17-18.)**
13 **Please respond.**

14 A. Mr. Crandall's recommendations go well beyond the requirements set forth in the
15 Commission's Phase IV Implementation Order and are overly burdensome. Based on my
16 understanding of the Commission's Phase IV Implementation Order, the EDC's sole
17 responsibility is to offer a reasonable portion of the EE&C Plan resources into PJM's FCM
18 and that the Phase IV SWE and Staff will not expand upon those requirements. As such,
19 Mr. Crandall's recommendations should be rejected.

20
21 **Q. Mr. Crandall further recommends close monitoring and reporting on the results of**
22 **the Companies' nomination and pricing strategies with the intent of modifying those**
23 **strategies to optimize the probable net PJM revenues to reduce ratepayer cost for the**

1 **Phase IV EE&C programs. (OCA St. No. 1, p. 18.) He also provides a list of**
2 **information that should be included in the monitoring and reporting. (OCA St. No.**
3 **1, p. 18.) Would you please respond?**

4 A. The Commission's SWE for Phase IV, in consultation with appropriate Commission staff
5 and the EDCs, will determine the reporting requirements for energy efficiency resources
6 nominated to PJM's FCM, as this is considered confidential market sensitive data. The
7 Companies will adhere to the Commission's final reporting requirements and envision
8 using internal reporting and monitoring processes that are used in other jurisdictions for
9 energy efficiency resource offers and are similar to those set forth by Mr. Crandall.

10
11 **IV. PSU STATEMENT NO. 1**

12 **Q. PSU witness Crist raises issues concerning its participation in West Penn's Phase III**
13 **EE&C Plan, including that the switch from Sodexo to CLEAResult as the CSP**
14 **created administrative lag, that PSU is waiting on rebates for several projects, and**
15 **that seven projects were tabled because of reapplication constraints. (PSU St. No. 1,**
16 **p. 8.) Would you please comment on these issues?**

17 A. The Companies have addressed the issues raised by Mr. Crist and believe these issues have
18 been resolved. To support PSU's participation in the Companies' EE&C Plan,
19 representatives from the Companies and the CSP currently meet regularly with PSU and
20 assist PSU with its applications as needed. The Companies plan to continue this process
21 into Phase IV.

1 **Q. Mr. Crist asserts that the Companies should develop a system to collect customer info**
2 **regularly from CSPs to account for possible CSP switch, thereby reducing**
3 **administrative waste. (PSU St. No. 1, p. 9.) Would you please comment on this?**

4 A. The Companies have processes and systems in place to collect all necessary customer
5 information to support implementation, tracking and reporting, and evaluation of their
6 programs. The Companies contract with CSP(s) who have contractual obligation to collect
7 and store all necessary information and to provide appropriate information to the
8 Companies. The CSP(s) provide certain information on a regular or ad hoc basis, such as
9 to account for a possible CSP switch, and representatives of the Companies are also able
10 to access the CSP's system to obtain additional information as needed.

11
12 **Q. Mr. Crist also recommends that the Companies (1) streamline applications; and (2)**
13 **improve communications by having fewer points of contact. (PSU St. No. 1, pp. 9-**
14 **10.) Would you please comment on this?**

15 A. The Companies plan to issue requests for proposal for CSP(s) to administer, promote, and
16 provide the program to customers, including staffing, promotional strategies, and processes
17 ensuring quality and other controls supporting successful program implementation. The
18 CSP(s) will be responsible for administration, marketing, outreach, fulfilling program
19 services, application processing, and documentation regarding purchased products and
20 completed projects, and processing incentives and rebates, where applicable.

21 As discussed above, representatives from the Companies and CSP meet regularly
22 with PSU and are available to assist PSU with its applications as needed. The Companies
23 will review its application processes for opportunities to streamline them as well as

1 establish points of contact to support PSU's efficient participation in the Companies'
2 EE&C programs with its Phase IV CSP(s).

3

4 **Q. Mr. Crist further recommends improvements to the measurement and verification**
5 **("M&V") process. (PSU St. No. 1, pp. 11-13.) Do you agree with this**
6 **recommendation?**

7 A. No. The recommended improvements identified by Mr. Crist are not necessary for all
8 projects. The Companies' Independent Program Evaluator adheres to standard M&V
9 protocols and requirements, and these requirements are established on a project by project
10 basis and are based on the equipment's size, complexity, and expected level of savings.
11 Depending on project type, if projects are part of a homogenous population, they may not
12 be included in the sample selected by the Independent Program Evaluator to complete
13 M&V requirements for statistical precision. The Companies intend to utilize both their
14 implementation and Independent Program Evaluator CSPs that have technical experts on
15 their staff to assist with project review. The Companies also believe the issues with the
16 M&V process raised by Mr. Crist have been resolved.

17

18 **Q. Does this conclude your rebuttal testimony?**

19 A. Yes, it does. However, I reserve the right to supplement my testimony.

Met-Ed/Penelec/Penn Power/West Penn
Exhibit ECM-1R

**Joint Petition of
Met-Ed, Penelec, Penn Power, and West Penn Power (Collectively “First Energy”)
for Approval of Act 129 EE&C Plan
Docket Nos. M-2020-3020820, M-2020-3020821, M-2020-3020822 M-2020-3020823**

*Interrogatory Responses of the Coalition for Affordable Utility Services and Energy Efficiency in
Pennsylvania (CAUSE-PA) to First Energy Set I*

FE to CAUSE-I-3

Re: CAUSE-PA Statement No. 1. For each recommendation made in CAUSE-PA Statement No. 1:

- (a) Please explain whether Mr. Grevatt has studied or evaluated his recommendation’s impact on:
 - (1) The individual programs’ cost-effectiveness;
 - (2) The overall portfolio’s cost-effectiveness;
 - (3) The savings for all customer sectors and programs; and
 - (4) The costs for all sectors and programs.
 - (5) If so, please provide those studies or evaluations, including all documents, reports, and workpapers that Mr. Grevatt relied upon in performing those studies or evaluations, in their native format (e.g., Microsoft Excel).
- (b) Please identify where the dollars in the budget for the Phase IV EE&C Plan will come from to implement this recommendation.
- (c) If the recommendation is the addition of a new measure, program, or pilot program, please provide its projected budget, participation level, and savings for each Program Year of Phase IV.
- (d) If the recommendation is the addition of a new measure, program, or pilot program, please provide its TRC benefit-cost ratio.
- (e) Please provide all documents, reports, and workpapers relied upon by Mr. Grevatt in providing the information requested in subparts (c) and (d) above.

Response:

- (a) Mr. Grevatt has not, at this time, conducted the requested analysis.

**Joint Petition of
Met-Ed, Penelec, Penn Power, and West Penn Power (Collectively “First Energy”)
for Approval of Act 129 EE&C Plan
Docket Nos. M-2020-3020820, M-2020-3020821, M-2020-3020822 M-2020-3020823**

*Interrogatory Responses of the Coalition for Affordable Utility Services and Energy Efficiency in
Pennsylvania (CAUSE-PA) to First Energy Set I*

(b) Mr. Grevatt has not, at this time, conducted an analysis of how the Company could re-prioritize its proposed budgets to achieve the balance of comprehensive measures required by the Commission’s Implementation Order, which specifically bases the savings targets on more comprehensive measures. See CAUSE-PA St. 1 at 32.

(c) Mr. Grevatt has not, at this time, conducted the requested analysis

(d) Mr. Grevatt has not, at this time, conducted the requested analysis.

(e) N/A.

Respondent: Jim Grevatt

Date: 1/21/2021

Met-Ed/Penelec/Penn Power/West Penn Statement No. 3-R

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

METROPOLITAN EDISON COMPANY
Docket No. M-2020-3020820

PENNSYLVANIA ELECTRIC COMPANY
Docket No. M-2020-3020821

PENNSYLVANIA POWER COMPANY
Docket No. M-2020-3020822

WEST PENN POWER COMPANY
Docket No. M-2020-3020823

PHASE IV ENERGY EFFICIENCY AND CONSERVATION PLAN

**Prepared
Rebuttal
Testimony
of
Anthony J. Woytko**

LIST OF TOPICS ADDRESSED

**Phase IV Cost Recovery Mechanism and Reconciliation
Allocation of Administrative Costs**

1 **I. INTRODUCTION AND BACKGROUND**

2 **Q. Please state your name and business address.**

3 A. My name is Anthony J Woytko. My business address is 2800 Pottsville Pike, Reading,
4 Pennsylvania, 19605.

5
6 **Q. By whom are you employed and in what capacity?**

7 A. I am employed by FirstEnergy Service Company as an Analyst in Rates and Regulatory
8 Affairs - Pennsylvania.

9
10 **Q. Did you previously submit testimony in this proceeding?**

11 A. Yes, I submitted direct testimony (Met-Ed/Penelec/Penn Power/West Penn Statement No.
12 3) in support of the Phase IV EE&C Plan proposed in this proceeding (“Phase IV Plan” or
13 “Proposed Plan”) by Metropolitan Edison Company (“Met-Ed”), Pennsylvania Electric
14 Company (“Penelec”), Pennsylvania Power Company (“Penn Power”), and West Penn
15 Power Company (“West Penn”) (collectively, the “Companies”).

16
17 **Q. Please briefly describe the subject matter of your rebuttal testimony in this
18 proceeding.**

19 A. I will respond to certain issues raised in the direct testimony of Geoffrey C. Crandall (OCA
20 Statement No. 1) submitted on behalf of the Office of Consumer Advocate (“OCA”),
21 specifically his issues regarding the Companies’ proposed Phase IV EE&C-C Riders (Rider
22 F), how revenues and costs from the Companies’ offering of peak demand reductions into
23 PJM Interconnection LLC’s (“PJM”) Forward Capacity Market (“FCM”) are credited

1 under the Phase IV EE&C-C Riders, and how the Companies' allocation of costs are
2 reflected in the Phase IV EE&C-C Riders.

3
4 **Q. Are you sponsoring any exhibits with your rebuttal testimony?**

5 A. Yes, attached to my testimony as Met-Ed/Penelec/Penn Power/West Penn Exhibits AJW-
6 1R through 5R are revised pro forma tariff supplements setting forth the Companies'
7 proposed Phase IV EE&C-C Riders (Rider F).

8
9 **II. OCA STATEMENT NO. 1**

10 **Q. OCA witness Crandall argues that the Companies' method of addressing PJM net**
11 **revenues does not comply with the Phase IV Implementation Order. (OCA St. No. 1,**
12 **pp. 11-12.) Could you please clarify how the Companies intend to reflect the PJM net**
13 **revenues in its Phase IV EE&C-C Riders?**

14 A. Yes. The Companies never intended to allocate the PJM net revenues among the customer
15 classes, as Mr. Crandall states in his testimony. The Companies planned to follow the
16 Phase IV Implementation Order and use those net revenues as an offset to the E-Factor in
17 the Phase IV EE&C-C Riders. However, I recognize that as originally written, the
18 Companies' proposed pro forma tariff supplements did not make that point clear and could
19 give the impression that PJM net revenues would be allocated among the customer classes
20 based on the ratio of class-specific approved budgeted program costs to total approved
21 budgeted program costs. In Exhibits AJW-1R through AJW-5R, the PJM net revenue has
22 been made its own variable in the formula (i.e., "PJM"), rather than included in EEC_{Exp1} .
23 The formula now shows how the PJM variable will directly offset the E-Factor in the

1 EE&C-C Rider calculation, as required under the Phase IV Implementation Order. This
2 revision also alleviates any concerns regarding the 2% spending cap, as the Companies
3 agree the PJM component is outside the 2% spending cap. Thus, I believe Mr. Crandall's
4 concern has been addressed.

5
6 **Q. Mr. Crandall also asserts that it is unclear how the Companies will allocate the PJM
7 net revenues to the customer classes. (OCA St. No. 1, p. 15.) Could you please clarify?**

8 A. Yes. The PJM net revenues will be assigned to the specific customer class associated with
9 the kilowatt (kW) values of the EE&C programs and measures that cleared in the PJM
10 FCM for each delivery period.

11
12 **Q. Mr. Crandall also raises a concern about how administrative costs are allocated by
13 the Companies and recommends that those costs be allocated based on total program
14 costs, rather than Conservation Service Provider ("CSP") delivery fees and
15 marketing costs. (OCA St. No. 1, pp. 13-14.) Would you please clarify the
16 Companies' allocation method for administrative costs and respond to Mr.
17 Crandall's recommendation?**

18 A. To clarify, the indirect costs in EEC_{Exp1} and incremental administrative start-up costs in
19 EEC_{Exp2} are allocated to each customer class based on the ratio of class-specific approved
20 budgeted administrative program costs to total plan-specific approved budgeted
21 administrative program costs. In other words, the indirect and administrative start-up costs
22 are allocated to each Company based on each Company's savings and targets and then
23 allocated to each program based on each program's ratio of CSP Delivery and CSP

Met-Ed/Penelec/Penn Power/West Penn Statement No. 3-R

1 Marketing costs. This allocation excludes incentives, such as customer rebates and
2 giveaways, as these costs are specific to each program. The Companies' pro forma tariff
3 supplements (Met-Ed/Penelec/Penn Power/West Penn Exhibits AJW-1R through 5R) have
4 been revised to help clarify how the costs are allocated. The tariff language explaining the
5 allocation for EEC_{Exp3} is clear—the costs are allocated to each customer class based on the
6 ratio of class-specific approved budgeted program costs to total approved budgeted
7 program costs.

8

9 **Q. Does this conclude your rebuttal testimony?**

10 A. Yes, it does. However, I reserve the right to supplement my testimony.

**Met-Ed/Penelec/Penn Power/West Penn
Exhibits AJW-1R through AJW-5R**

RIDER F
PHASE IV ENERGY EFFICIENCY AND CONSERVATION CHARGE RIDER

An Energy Efficiency and Conservation (“EEC”) Charge (“Phase IV EE&C-C”) shall be applied to each Billing Unit during a billing month to Customers served under this Tariff, with the exception of those served under Borderline Service rates. Billing Units are defined as follows:

Residential, Commercial, and
Street Lighting Customer Classes: Per kWh

Industrial Customer Class: Per kW PLC

Residential, Commercial, and Street Lighting Customer Class rates will be calculated to the nearest one-thousandth of a cent per kWh. Industrial Customer Class rates will be calculated to the nearest one-hundredth of a dollar per kW PLC. The Phase IV EE&C-C rates shall be calculated separately for each customer class according to the provisions of this rider.

For service rendered June 1, 2021 through May 31, 2022 the Phase IV EE&C-C rates billed by Customer Class are as follows:

Residential Customer Class (Rate RS):

0.118 cents per kWh.

Commercial Customer Class (Rate GS-Small, Rate GS-Medium, Rate GS – Volunteer Fire Company and Non-Profit Ambulance Service, Rescue Squad and Senior Center Service Rate, Rate MS and Outdoor Area Lighting Service):

0.136 cents per kWh.

Street Lighting Customer Class (Street Lighting Service, Ornamental Street Lighting Service, and LED Street Lighting Service):

(0.104) cents per kWh.

Industrial Customer Class (Rate GS-Large, Rate GP, and Rate TP):

\$ 0.49 per kW PLC.

RIDERS

Rider F (continued)

The Phase IV EE&C-C rates by Customer Class shall be calculated in accordance with the formula set forth below:

$$EE\&C-C = [(EEC_C - \{E + PJM\} - E^2) / S] \times [1 / (1 - T)]$$

$$EEC_C = EEC_{Exp1} + EEC_{Exp2} + EEC_{Exp3}$$

Where:

EE&C-C = The charge in cents or dollar per Billing Unit by Customer Class as defined by this rider applied to each Billing Unit for the Rate Schedules identified in this rider.

EEC_C = The Energy Efficiency and Conservation Costs by Customer Class incurred and projected to be incurred by the Company for the EE&C-C Computational Period calculated in accordance with the formula shown above.

EEC_{Exp1} = Costs incurred and projected to be incurred associated with the Customer Class specific Phase IV EE&C Programs as approved by the Commission for the Phase IV EE&C-C Computational Period by Customer Class. These costs also include an allocated portion of any indirect costs incurred associated with all the Company’s Phase IV EE&C Programs for the Phase IV EE&C-C Computational Period. ~~EEC_{Exp1} costs will be offset by a credit for any PJM capacity market revenues (net of the costs associated with auction participation and including replacing capacity charges), capacity deficiency charges and any unavoidable PJM charges. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted administrative program costs to total plan-specific approved budgeted administrative program costs. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.~~

EEC_{Exp2} = An allocated portion of incremental administrative start-up costs incurred by the Company through May 31, 2021 in connection with the development of the Company’s Phase IV EE&C Programs in response to the Commission’s order and guidance at Docket No. M-2020-3015228. These costs to design, create, and obtain Commission approval for the Company’s Phase IV EE&C Programs include, but are not limited to, consultant costs, legal fees, and other direct and indirect costs associated with the development and implementation of the Company’s Phase IV EE&C Programs in compliance with Commission directives. ~~Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted administrative program costs to total plan-specific approved budgeted administrative program costs. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.~~

RIDERS

Rider F (continued)

- EEC_{Exp3} = An allocated portion of the costs the Company incurs and projects to incur to fund the Commission's statewide evaluator contract which shall be excluded in the final determination of the Act 129 limitation on the Company's Phase IV EE&C Program costs. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.
- E = The cumulative over or under-collection of Phase IV EE&C costs by Customer Class that results from the billing of the Phase IV EE&C-C rates (an over- collection is denoted by a positive E and an under-collection by a negative E).
- PJM = A credit for any PJM Forward Capacity Market (FCM) revenues (net of the costs associated with auction participation and including replacing capacity charges, capacity deficiency charges and any unavoidable PJM charges). The credit will be assigned to the specific customer class associated with the kW values of the EE&C programs and measures that cleared in the PJM FCM for each delivery period.
- E^2 = Phase III EE&C final reconciliation over or under-collection of EEC costs by Customer Class that results from the billing of the Phase III EE&C-C rates through March 31, 2021 (an over- collection is denoted by a positive E and an under-collection by a negative E), and any expenses to finalize any measures installed and commercially operable on or before May 31, 2021; expenses to finalize any contracts; other Phase III administrative obligations; and any remaining Phase III EE&C revenues after March 31, 2021.
- S = The Company's projected Billing Units (kWh sales delivered to all Customers in the specific customer class or kW PLC demand for the Industrial Customer Class).
- T = The Pennsylvania gross receipts tax rate in effect during the billing month expressed in decimal form as reflected in the Company's base rates.

All capitalized terms not otherwise defined in this rider shall have the definitions specified in the Definitions of Terms section of this Tariff. For the purpose of this rider, the following additional definitions shall apply:

RIDERS

Rider F (continued)

1. Phase IV EE&C-C Computational Period – The 12-month period from June 1 through May 31.
2. Phase IV EE&C-C Initial Reconciliation Period – June 1, 2021 through March 31, 2022 for the initial period of the rider.
3. Phase IV EE&C-C Reconciliation Period – The 12-month period ending March 31 each year thereafter, except for the Initial Reconciliation Period, for the duration of this rider.
4. Peak Load Contribution (“PLC”) – A Customer’s contribution to the Company’s transmission zone normalized summer peak load, as estimated by the Company in accordance with PJM rules and requirements.
5. Phase III EE&C – The energy efficiency plan that terminates on May 31, 2021. Revenues and EE&C Costs will continue to accrue past the termination date. A final reconciliation of the remaining balance will be included in the June 1, 2022 Phase IV EE&C-C rate calculation as a separate line item.

The Company will submit to the Commission by May 1 of each year starting May 1, 2022: (1) a reconciliation between actual Phase IV EE&C-C revenues and actual Phase IV EE&C-C costs for the Phase IV EE&C-C Reconciliation Period, except for the Phase IV EE&C-C Initial Reconciliation Period, as adjusted for removal of gross receipts tax; (2) any adjustment to the forecasted Phase IV EE&C-C revenues anticipated to be billed during April through May of that year, as adjusted for removal of gross receipts tax; (3) the Phase IV EE&C program cost estimate for the forthcoming Phase IV EE&C-C Computational Period by Customer Class; and (4) Phase III EE&C final reconciliation over or under-collection of EEC costs by Customer Class that results from the billing of the Phase III EE&C-C rates and remaining Phase III EEC costs. There shall also be a final reconciliation of amounts to be collected or refunded after May 31, 2026.

Upon determination that the Phase IV EE&C-C rates, if left unchanged, would result in material over or under-collection of all recoverable costs incurred or expected to be incurred by customer class, the Company may request that the Commission approve one or more interim revisions to the Phase IV EE&C-C rates to become effective thirty (30) days from the date of filing, unless otherwise ordered by the Commission.

The Company shall file an annual report of collections under this rider by April 30th of each year starting April 30, 2022 until the conclusion of this rider.

At the conclusion of the duration of this rider, the Company is authorized to recover or refund any remaining amounts not reconciled at that time under such mechanism as approved by the Commission.

Application of the Phase IV EE&C-C rates shall be subject to annual review and audit by the Commission.

RIDER F
PHASE IV ENERGY EFFICIENCY AND CONSERVATION CHARGE RIDER

An Energy Efficiency and Conservation (“EEC”) Charge (“Phase IV EE&C-C”) shall be applied to each Billing Unit during a billing month to Customers served under this Tariff, with the exception of those served under Borderline Service rates. Billing Units are defined as follows:

Residential, Commercial, and
Street Lighting Customer Classes: Per kWh

Industrial Customer Class: Per kW PLC

Residential, Commercial, and Street Lighting Customer Class rates will be calculated to the nearest one-thousandth of a cent per kWh. Industrial Customer Class rates will be calculated to the nearest one-hundredth of a dollar per kW PLC. The Phase IV EE&C-C rates shall be calculated separately for each customer class according to the provisions of this rider.

For service rendered June 1, 2021 through May 31, 2022 the Phase IV EE&C-C rates billed by Customer Class are as follows:

Residential Customer Class (Rate RS):

0.111 cents per kWh.

Commercial Customer Class (Rate GS-Small, Rate GS-Medium, Rate GS – Volunteer Fire Company and Non-Profit Ambulance Service, Rescue Squad and Senior Center Service Rate, Rate H and Outdoor Area Lighting Service):

0.149 cents per kWh.

Street Lighting Customer Class (High Pressure Sodium Vapor Street Lighting Service, Municipal Street Lighting Service, and LED Street Lighting Service):

(0.145) cents per kWh.

Industrial Customer Class (Rate GS-Large, Rate GP, and Rate LP):

\$ 0.38 per kW PLC.

RIDERS

Rider F (continued)

The Phase IV EE&C-C rates by Customer Class shall be calculated in accordance with the formula set forth below:

$$EE\&C-C = [(EEC_C - \{E + PJM\} E - E^2) / S] \times [1 / (1 - T)]$$

$$EEC_C = EEC_{Exp1} + EEC_{Exp2} + EEC_{Exp3}$$

Where:

EE&C-C = The charge in cents or dollar per Billing Unit by Customer Class as defined by this rider applied to each Billing Unit for the Rate Schedules identified in this rider.

EEC_C = The Energy Efficiency and Conservation Costs by Customer Class incurred and projected to be incurred by the Company for the EE&C-C Computational Period calculated in accordance with the formula shown above.

EEC_{Exp1} = Costs incurred and projected to be incurred associated with the Customer Class specific Phase IV EE&C Programs as approved by the Commission for the Phase IV EE&C-C Computational Period by Customer Class. These costs also include an allocated portion of any indirect costs incurred associated with all the Company's Phase IV EE&C Programs for the Phase IV EE&C-C Computational Period. ~~EEC_{Exp1} costs will be offset by a credit for any PJM capacity market revenues (net of the costs associated with auction participation and including replacing capacity charges), capacity deficiency charges and any unavoidable PJM charges. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted administrative program costs to total plan-specific approved budgeted administrative program costs. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.~~

EEC_{Exp2} = An allocated portion of incremental administrative start-up costs incurred by the Company through May 31, 2021 in connection with the development of the Company's Phase IV EE&C Programs in response to the Commission's order and guidance at Docket No. M-2020-3015228. These costs to design, create, and obtain Commission approval for the Company's Phase IV EE&C Programs include, but are not limited to, consultant costs, legal fees, and other direct and indirect costs associated with the development and implementation of the Company's Phase IV EE&C Programs in compliance with Commission directives. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted administrative program costs to total plan-specific approved budgeted administrative program costs. ~~Such costs shall be allocated to each customer class based on the ratio of class-~~

RIDERS

~~specific approved budgeted program costs to total approved budgeted program costs.~~

Rider F (continued)

$EEC_{Exp3} =$ An allocated portion of the costs the Company incurs and projects to incur to fund the Commission's statewide evaluator contract which shall be excluded in the final determination of the Act 129 limitation on the Company's Phase IV EE&C Programs costs. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.

$E =$ The cumulative over or under-collection of Phase IV EE&C costs by Customer Class that results from the billing of the Phase IV EE&C-C rates (an over- collection is denoted by a positive E and an under-collection by a negative E).

$PJM =$ A credit for any PJM Forward Capacity Market (FCM) revenues (net of the costs associated with auction participation and including replacing capacity charges, capacity deficiency charges and any unavoidable PJM charges). The credit will be assigned to the specific customer class associated with the kW values of the EE&C programs and measures that cleared in the PJM FCM for each delivery period.

$E^2 =$ Phase III EE&C final reconciliation over or under-collection of EEC costs by Customer Class that results from the billing of the Phase III EE&C-C rates through March 31, 2021 (an over- collection is denoted by a positive E and an under-collection by a negative E), and any expenses to finalize any measures installed and commercially operable on or before May 31, 2021; expenses to finalize any contracts; other Phase III administrative obligations; and any remaining Phase III EE&C revenues after March 31, 2021.

$S =$ The Company's projected Billing Units (kWh sales delivered to all Customers in the specific customer class or kW PLC demand for the Industrial Customer Class).

$T =$ The Pennsylvania gross receipts tax rate in effect during the billing month expressed in decimal form as reflected in the Company's base rates.

All capitalized terms not otherwise defined in this rider shall have the definitions specified in the Definitions of Terms section of this Tariff. For the purpose of this rider, the following additional definitions shall apply:

RIDERS

Rider F (continued)

1. Phase IV EE&C-C Computational Period – The 12-month period from June 1 through May 31.
2. Phase IV EE&C-C Initial Reconciliation Period – June 1, 2021 through March 31, 2022 for the initial period of the rider.
3. Phase IV EE&C-C Reconciliation Period – The 12-month period ending March 31 each year thereafter, except for the Initial Reconciliation Period, for the duration of this rider.
4. Peak Load Contribution (“PLC”) – A Customer’s contribution to the Company’s transmission zone normalized summer peak load, as estimated by the Company in accordance with PJM rules and requirements.
5. Phase III EE&C – The energy efficiency plan that terminates on May 31, 2021. Revenues and EE&C Costs will continue to accrue past the termination date. A final reconciliation of the remaining balance will be included in the June 1, 2022 Phase IV EE&C-C rate calculation as a separate line item.

The Company will submit to the Commission by May 1 of each year starting May 1, 2022: (1) a reconciliation between actual Phase IV EE&C-C revenues and actual Phase IV EE&C-C costs for the Phase IV EE&C-C Reconciliation Period, except for the Phase IV EE&C-C Initial Reconciliation Period, as adjusted for removal of gross receipts tax; (2) any adjustment to the forecasted Phase IV EE&C-C revenues anticipated to be billed during April through May of that year, as adjusted for removal of gross receipts tax; (3) the Phase IV EE&C program cost estimate for the forthcoming Phase IV EE&C-C Computational Period by Customer Class; and (4) Phase III EE&C final reconciliation over or under-collection of EEC costs by Customer Class that results from the billing of the Phase III EE&C-C rates and remaining Phase III EEC costs. There shall also be a final reconciliation of amounts to be collected or refunded after May 31, 2026.

Upon determination that the Phase IV EE&C-C rates, if left unchanged, would result in material over or under-collection of all recoverable costs incurred or expected to be incurred by customer class, the Company may request that the Commission approve one or more interim revisions to the Phase IV EE&C-C rates to become effective thirty (30) days from the date of filing, unless otherwise ordered by the Commission.

The Company shall file an annual report of collections under this rider by April 30th of each year starting April 30, 2022 until the conclusion of this rider.

At the conclusion of the duration of this rider, the Company is authorized to recover or refund any remaining amounts not reconciled at that time under such mechanism as approved by the Commission.

Application of the Phase IV EE&C-C rates shall be subject to annual review and audit by the Commission.

RIDER F

PHASE IV ENERGY EFFICIENCY AND CONSERVATION CHARGE RIDER

An Energy Efficiency and Conservation (“EEC”) Charge (“Phase IV EE&C-C”) shall be applied to each Billing Unit during a billing month to Customers served under this Tariff. Billing Units are defined as follows:

Residential, Commercial, and
Street Lighting Customer Classes: Per kWh

Industrial Customer Class: Per kW PLC

Residential, Commercial, and Street Lighting Customer Class rates will be calculated to the nearest one-thousandth of a cent per kWh. Industrial Customer Class rates will be calculated to the nearest one-hundredth of a dollar per kW PLC. The Phase IV EE&C-C rates shall be calculated separately for each customer class according to the provisions of this rider.

For service rendered June 1, 2021 through May 31, 2022 the Phase IV EE&C-C rates billed by Customer Class are as follows:

Residential Customer Class (Rate Schedule RS):

0.142 cents per kWh.

Commercial Customer Class (Rate GS; GS Special Rule GSDS, Rate GM; Rate PLS; GS Special Provision for Volunteer Fire Companies, Non-Profit Senior Citizen Centers, Non-Profit Rescue Squads and Non-Profit Ambulance Services; and Rate PNP):

0.171 cents per kWh.

Street Lighting Customer Class (Rate SV; Rate SVD; and Rate LED):

(0.694) cents per kWh.

Industrial Customer Class (Rate GS-Large, Rate GP, and Rate GT):

\$ 0.31 per kW PLC.

RIDERS

Rider F (continued)

The Phase IV EE&C-C rates by Customer Class shall be calculated in accordance with the formula set forth below:

$$EE\&C-C = [(EEC_C - \{E + PJM\} E - E^2) / S] \times [1 / (1 - T)]$$

$$EEC_C = EEC_{Exp1} + EEC_{Exp2} + EEC_{Exp3}$$

Where:

- EE&C-C = The charge in cents or dollar per Billing Unit by Customer Class as defined by this rider applied to each Billing Unit for the Rate Schedules identified in this rider.
- EEC_C = The Energy Efficiency and Conservation Costs by Customer Class incurred and projected to be incurred by the Company for the Phase IV EE&C-C Computational Period calculated in accordance with the formula shown above.
- EEC_{Exp1} = Costs incurred and projected to be incurred associated with the Customer Class specific Phase IV EE&C Programs as approved by the Commission for the Phase IV EE&C-C Computational Period by Customer Class. These costs also include an allocated portion of any indirect costs incurred associated with all the Company's Phase IV EE&C Programs for the Phase IV EE&C-C Computational Period. ~~EEC_{Exp1} costs will be offset by a credit for any PJM capacity market revenues (net of the costs associated with auction participation and including replacing capacity charges), capacity deficiency charges and any unavoidable PJM charges. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted administrative program costs to total plan-specific approved budgeted administrative program costs. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.~~
- EEC_{Exp2} = An allocated portion of incremental administrative start-up costs incurred by the Company through May 31, 2021 in connection with the development of the Company's Phase IV EE&C Programs in response to the Commission's order and guidance at Docket No. M-2020-3015228. These costs to design, create, and obtain Commission approval for the Company's Phase IV EE&C Programs include, but are not limited to, consultant costs, legal fees, and other direct and indirect costs associated with the development and implementation of the Company's Phase IV EE&C Programs in compliance with Commission directives. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted administrative program costs to total plan-specific approved budgeted administrative program costs. ~~Such costs shall be allocated to each customer class based on the ratio of class-specific~~

RIDERS

~~approved budgeted program costs to total approved budgeted program costs.~~

Rider F (continued)

$EEC_{Exp3} =$ An allocated portion of the costs the Company incurs and projects to incur to fund the Commission's statewide evaluator contract which shall be excluded in the final determination of the Act 129 limitation on the Company's Phase IV EE&C Programs costs. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.

$E =$ The cumulative over or under-collection of Phase IV EE&C costs by Customer Class that results from the billing of the Phase IV EE&C-C rates (an over-collection is denoted by a positive E and an under-collection by a negative E).

$PJM =$ A credit for any PJM Forward Capacity Market (FCM) revenues (net of the costs associated with auction participation and including replacing capacity charges, capacity deficiency charges and any unavoidable PJM charges). The credit will be assigned to the specific customer class associated with the kW values of the EE&C programs and measures that cleared in the PJM FCM for each delivery period.

$E^2 =$ Phase III EE&C final reconciliation over or under-collection of EEC costs by Customer Class that results from the billing of the Phase III EE&C-C rates through March 31, 2021 (an over-collection is denoted by a positive E and an under-collection by a negative E), and any expenses to finalize any measures installed and commercially operable on or before May 31, 2021; expenses to finalize any contracts; other Phase III administrative obligations; and any remaining Phase III EE&C revenues after March 31, 2021.

$S =$ The Company's projected Billing Units (kWh sales delivered to all Customers in the specific customer class or kW PLC demand for the Industrial Customer Class).

$T =$ The Pennsylvania gross receipts tax rate in effect during the billing month expressed in decimal form as reflected in the Company's base rates.

All capitalized terms not otherwise defined in this rider shall have the definitions specified in the Definitions of Terms section of this Tariff. For the purpose of this rider, the following additional definitions shall apply:

RIDERS

Rider F (continued)

1. Phase IV EE&C-C Computational Period – The 12-month period from June 1 through May 31.
2. Phase IV EE&C-C Initial Reconciliation Period – June 1, 2021 through March 31, 2022 for the initial period of the rider.
3. Phase IV EE&C-C Reconciliation Period – The 12-month period ending March 31 each year thereafter, except for the Initial Reconciliation Period, for the duration of this rider.
4. Peak Load Contribution (“PLC”) – A Customer’s contribution to the Company’s transmission zone normalized summer peak load, as estimated by the Company in accordance with PJM rules and requirements.
5. Phase III EE&C – The energy efficiency plan that terminates on May 31, 2021. Revenues and EE&C Costs will continue to accrue past the termination date. A final reconciliation of the remaining balance will be included in the June 1, 2022 Phase IV EE&C-C rate calculation as a separate line item.

The Company will submit to the Commission by May 1 of each year starting May 1, 2022: (1) a reconciliation between actual Phase IV EE&C-C revenues and actual Phase IV EE&C-C costs for the Phase IV EE&C-C Reconciliation Period, except for the Phase III EE&C-C Initial Reconciliation Period, as adjusted for removal of gross receipts tax; (2) any adjustment to the forecasted Phase IV EE&C-C revenues anticipated to be billed during April through May of that year, as adjusted for removal of gross receipts tax; (3) the Phase IV EE&C program cost estimate for the forthcoming Phase IV EE&C-C Computational Period by Customer Class; and (4) Phase III EE&C final reconciliation over or under-collection of EEC costs by Customer Class that results from the billing of the Phase III EE&C-C rates and remaining Phase III EEC costs incurred after March 31, 2021. There shall also be a final reconciliation of amounts to be collected or refunded after May 31, 2026.

Upon determination that the Phase IV EE&C-C rates, if left unchanged, would result in material over or under-collection of all recoverable costs incurred or expected to be incurred by customer class, the Company may request that the Commission approve one or more interim revisions to the Phase IV EE&C-C rates to become effective thirty (30) days from the date of filing, unless otherwise ordered by the Commission.

The Company shall file an annual report of collections under this rider by April 30th of each year starting April 30, 2022 until the conclusion of this rider.

At the conclusion of the duration of this rider, the Company is authorized to recover or refund any remaining amounts not reconciled at that time under such mechanism as approved by the Commission.

Application of the Phase IV EE&C-C rates shall be subject to annual review and audit by the Commission.

RIDER F
PHASE IV ENERGY EFFICIENCY AND CONSERVATION CHARGE RIDER

An Energy Efficiency and Conservation (“EEC”) Charge (“Phase IV EE&C-C”) shall be applied to each Billing Unit during a billing month to Customers served under this Tariff. Billing Units are defined as follows:

Residential, Commercial, and Street Lighting Customer Classes:	Per kWh
Industrial Customer Class:	Per kW PLC

Residential, Commercial, and Street Lighting Customer Class rates will be calculated to the nearest one-thousandth of a cent per kWh. Industrial Customer Class rates will be calculated to the nearest one-hundredth of a dollar per kW PLC. The Phase IV EE&C-C rates shall be calculated separately for each customer class according to the provisions of this rider.

For service rendered June 1, 2021 through May 31, 2022 the Phase IV EE&C-C rates billed by Customer Class are as follows:

Residential Customer Class (Rate 10):

0.139 cents per kWh.

Commercial Customer Class (Rate GS 20, Rate GS 20 - Volunteer Fire Company, and Non-Profit Ambulance Service, Rescue Squad and Senior Center Service Rate and Rate GS 30):

0.117 cents per kWh.

Street Lighting Customer Class (Rate Schedules 51 through 58, 71, 72):

(0.864) cents per kWh.

Industrial Customer Class (Rate GS 35, 40, 44, 46 and Tariff No. 38):

\$ 0.27 per kW PLC.

RIDERS

Rider F (continued)

The Phase IV EE&C-C rates by Customer Class shall be calculated in accordance with the formula set forth below:

$$EE\&C-C = [(EEC_C - \{E + PJM\} E - E^2) / S] \times [1 / (1 - T)]$$

$$EEC_C = EEC_{Exp1} + EEC_{Exp2} + EEC_{Exp3}$$

Where:

- EE&C-C = The charge in cents or dollar per Billing Unit by Customer Class as defined by this rider applied to each Billing Unit for the Rate Schedules and Tariffs identified in this rider.
- EEC_C = The Energy Efficiency and Conservation Costs by Customer Class incurred and projected to be incurred by the Company for the Phase IV EE&C-C Computational Period calculated in accordance with the formula shown above.
- EEC_{Exp1} = Costs incurred and projected to be incurred associated with the Customer Class specific Phase IV EE&C Programs as approved by the Commission for the Phase IV EE&C-C Computational Period by Customer Class. These costs also include an allocated portion of any indirect costs incurred associated with all the Company's Phase IV EE&C Programs for the Phase IV EE&C-C Computational Period. ~~EEC_{Exp1} costs will be offset by a credit for any PJM capacity market revenues (net of the costs associated with auction participation and including replacing capacity charges), capacity deficiency charges and any unavoidable PJM charges. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted administrative program costs to total plan-specific approved budgeted administrative program costs.~~
- EEC_{Exp2} = An allocated portion of incremental administrative start-up costs incurred by the Company through May 31, 2021 in connection with the development of the Company's Phase IV EE&C Programs in response to the Commission's order and guidance at Docket No. M-2020-3015228. These costs to design, create, and obtain Commission approval for the Company's Phase IV EE&C Programs include, but are not limited to, consultant costs, legal fees, and other direct and indirect costs associated with the development and implementation of the Company's Phase IV EE&C Programs in compliance with Commission directives. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted administrative program costs to total plan-specific approved budgeted administrative program costs. ~~Such costs shall~~

RIDERS

~~be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.~~

Rider F (continued)

- EEC_{Exp3} = An allocated portion of the costs the Company incurs and projects to incur to fund the Commission's statewide evaluator contract which shall be excluded in the final determination of the Act 129 limitation on the Company's Phase IV EE&C Programs costs. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs.
- E = The cumulative over or under-collection of Phase IV EE&C costs by Customer Class that results from the billing of the Phase IV EE&C-C rates (an over-collection is denoted by a positive E and an under-collection by a negative E).
- PJM = A credit for any PJM Forward Capacity Market (FCM) revenues (net of the costs associated with auction participation and including replacing capacity charges, capacity deficiency charges and any unavoidable PJM charges). The credit will be assigned to the specific customer class associated with the kW values of the EE&C programs and measures that cleared in the PJM FCM for each delivery period.
- E² = Phase III EE&C final reconciliation over or under-collection of EEC costs by Customer Class that results from the billing of the Phase III EE&C-C rates through March 31, 2021 (an over- collection is denoted by a positive E and an under-collection by a negative E), and any expenses to finalize any measures installed and commercially operable on or before May 31, 2021; expenses to finalize any contracts; other Phase III administrative obligations; and any remaining Phase III EE&C revenues after March 31, 2021.
- S = The Company's projected Billing Units (kWh sales delivered to all Customers in the specific customer class or kW PLC demand for the Industrial Customer Class).
- T = The Pennsylvania gross receipts tax rate in effect during the billing month expressed in decimal form as reflected in the Company's base rates.

All capitalized terms not otherwise defined in this rider shall have the definitions specified in the Definitions of Terms section of this Tariff. For the purpose of this rider, the following additional definitions shall apply:

RIDERS

Rider F (continued)

1. Phase IV EE&C-C Computational Period – The 12-month period from June 1 through May 31.
2. Phase IV EE&C-C Initial Reconciliation Period – June 1, 2021 through March 31, 2022 for the initial period of the rider.
3. Phase IV EE&C-C Reconciliation Period – The 12-month period ending March 31 each year thereafter, except for the Initial Reconciliation Period, for the duration of this rider.
4. Peak Load Contribution (“PLC”) – A Customer’s contribution to the Company’s transmission zone normalized summer peak load, as estimated by the Company in accordance with PJM rules and requirements.
5. Phase III EE&C – The energy efficiency plan that terminates on May 31, 2021. Revenues and EE&C Costs will continue to accrue past the termination date. A final reconciliation of the remaining balance will be included in the June 1, 2022 Phase IV EE&C-C rate calculation as a separate line item.

The Company will submit to the Commission by May 1 of each year starting May 1, 2022: (1) a reconciliation between actual Phase IV EE&C-C revenues and actual Phase IV EE&C-C costs for the Phase IV EE&C-C Reconciliation Period, except for the Phase IV EE&C-C Initial Reconciliation Period, as adjusted for removal of gross receipts tax; (2) any adjustment to the forecasted Phase IV EE&C-C revenues anticipated to be billed during April through May of that year, as adjusted for removal of gross receipts tax; (3) the Phase IV EE&C program cost estimate for the forthcoming Phase IV EE&C-C Computational Period by Customer Class; and (4) Phase III EE&C final reconciliation over or under-collection of EEC costs by Customer Class that results from the billing of the Phase III EE&C-C rates and remaining Phase III EEC costs. There shall also be a final reconciliation of amounts to be collected or refunded after May 31, 2026.

Upon determination that the Phase IV EE&C-C rates, if left unchanged, would result in material over or under-collection of all recoverable costs incurred or expected to be incurred by customer class, the Company may request that the Commission approve one or more interim revisions to the Phase IV EE&C-C rates to become effective thirty (30) days from the date of filing, unless otherwise ordered by the Commission.

The Company shall file an annual report of collections under this rider by April 30th of each year starting April 30, 2022 until the conclusion of this rider.

At the conclusion of the duration of this rider, the Company is authorized to recover or refund any remaining amounts not reconciled at that time under such mechanism as approved by the Commission.

Application of the Phase IV EE&C-C rates shall be subject to annual review and audit by the Commission.

RIDER F

TARIFF No. 38 – PENNSYLVANIA STATE UNIVERSITY
PHASE IV ENERGY EFFICIENCY AND CONSERVATION CHARGE RIDER

An Energy Efficiency and Conservation (“EEC”) Charge (“Phase IV EE&C-C”) shall be applied to each Billing Unit during a billing month to Customers served under this Tariff. Billing Units are defined as follows:

Industrial Customer Class rates will be calculated to the nearest one-hundredth of a dollar per kW PLC. The Phase IV EE&C-C rates shall be calculated separately for each customer class according to the provisions of this rider.

For service rendered June 1, 2021 through May 31, 2022 the Phase IV EE&C-C rates billed by Customer Class are as follows:

Industrial Customer Class (Tariff No. 40 Rate Schedule 35, 40, 44 and 46 and Tariff No. 38):

\$ 0.27 per kW PLC.

Rider F (Continued)

The Phase IV EE&C-C rates by Customer Class shall be calculated in accordance with the formula set forth below:

$$EE\&C-C = [(EEC_C - \{E + PJM\} E - E^2) / S] \times [1 / (1 - T)]$$

$$EEC_C = EEC_{Exp1} + EEC_{Exp2} + EEC_{Exp3}$$

Where:

EE&C-C = The charge in cents or dollar per Billing Unit by Customer Class as defined by this rider applied to each Billing Unit for the Rate Schedules identified in this rider.

EEC_C = The Energy Efficiency and Conservation Costs by Customer Class incurred and projected to be incurred by the Company for the Phase IV EE&C-C Computational Period calculated in accordance with the formula shown above.

EEC_{Exp1} = Costs incurred and projected to be incurred associated with the Customer Class specific Phase IV EE&C Programs as approved by the Commission for the Phase IV EE&C-C Computational Period by Customer Class. These costs also include an allocated portion of any indirect costs incurred associated with all the Company's Phase IV EE&C Programs for the Phase IV EE&C-C Computational Period. ~~EEC_{Exp1} costs will be offset by a credit for any PJM capacity market revenues (net of the costs associated with auction participation and including replacing capacity charges), capacity deficiency charges and any unavoidable PJM charges. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program costs. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted administrative program costs to total plan-specific approved budgeted administrative program costs.~~

EEC_{Exp2} = An allocated portion of incremental administrative start-up costs incurred by the Company through May 31, 2021 in connection with the development of the Company's Phase IV EE&C Programs in response to the Commission's order and guidance at Docket No. M-2020-3015228. These costs to design, create, and obtain Commission approval for the Company's Phase IV EE&C Programs include, but are not limited to, consultant costs, legal fees, and other direct and indirect costs associated with the development and implementation of the Company's Phase IV EE&C Programs in compliance with Commission directives. ~~Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted administrative program costs to total plan-specific approved budgeted administrative program costs. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total~~

~~approved budgeted program costs.~~

Rider F (Continued)

$EEC_{Exp3} =$ An allocated portion of the costs the Company incurs and projects to incur to fund the Commission's statewide evaluator contract which shall be excluded in the final determination of the Act 129 limitation on the Company's Phase IV EE&C Programs costs. Such costs shall be allocated to each customer class based on the ratio of class-specific approved budgeted program costs to total approved budgeted program cost.

$E =$ The cumulative over or under-collection of Phase IV EE&C costs by Customer Class that results from the billing of the Phase IV EE&C-C rates (an over- collection is denoted by a positive E and an under-collection by a negative E).

$PJM =$ A credit for any PJM Forward Capacity Market (FCM) revenues (net of the costs associated with auction participation and including replacing capacity charges, capacity deficiency charges and any unavoidable PJM charges). The credit will be assigned to the specific customer class associated with the kW values of the EE&C programs and measures that cleared in the PJM FCM for each delivery period.

$E^2 =$ Phase III EE&C final reconciliation over or under-collection of EEC costs by Customer Class that results from the billing of the Phase III EE&C-C rates through March 31, 2021 (an over- collection is denoted by a positive E and an under-collection by a negative E), and any expenses to finalize any measures installed and commercially operable on or before May 31, 2021; expenses to finalize any contracts; other Phase III administrative obligations; and any remaining Phase III EE&C revenues after March 31, 2021.

$S =$ The Company's projected Billing Units (kWh sales delivered to all Customers in the specific customer class or kW PLC demand for the Industrial Customer Class).

$T =$ The Pennsylvania gross receipts tax rate in effect during the billing month expressed in decimal form as reflected in the Company's base rates.

All capitalized terms not otherwise defined in this rider shall have the definitions specified in the Definitions of Terms section of this Tariff. For the purpose of this rider, the following additional definitions shall apply:

Rider F (continued)

1. Phase IV EE&C-C Computational Period – The 12-month period from June 1 through May 31.
2. Phase IV EE&C-C Initial Reconciliation Period – June 1, 2021 through March 31, 2022 for the initial period of the rider.
3. Phase IV EE&C-C Reconciliation Period – The 12-month period ending March 31 each year thereafter, except for the Initial Reconciliation Period, for the duration of this rider.
4. Peak Load Contribution (“PLC”) – A Customer’s contribution to the Company’s transmission zone normalized summer peak load, as estimated by the Company in accordance with PJM rules and requirements.
5. Phase III EE&C – The energy efficiency plan that terminates on May 31, 2021. Revenues and EE&C Costs will continue to accrue past the termination date. A final reconciliation of the remaining balance will be included in the June 1, 2022 Phase IV EE&C-C rate calculation as a separate line item.

The Company will submit to the Commission by May 1 of each year starting May 1, 2022: (1) a reconciliation between actual Phase IV EE&C-C revenues and actual Phase IV EE&C-C costs for the Phase IV EE&C-C Reconciliation Period, except for the Phase IV EE&C-C Initial Reconciliation Period, as adjusted for removal of gross receipts tax; (2) any adjustment to the forecasted Phase IV EE&C-C revenues anticipated to be billed during April through May of that year, as adjusted for removal of gross receipts tax; (3) the Phase IV EE&C program cost estimate for the forthcoming Phase IV EE&C-C Computational Period by Customer Class; and (4) Phase III EE&C final reconciliation over or under-collection of EEC costs by Customer Class that results from the billing of the Phase III EE&C-C rates and remaining Phase III EEC costs. There shall also be a final reconciliation of amounts to be collected or refunded after May 31, 2026.

Upon determination that the Phase IV EE&C-C rates, if left unchanged, would result in material over or under-collection of all recoverable costs incurred or expected to be incurred by customer class, the Company may request that the Commission approve one or more interim revisions to the Phase IV EE&C-C rates to become effective thirty (30) days from the date of filing, unless otherwise ordered by the Commission.

The Company shall file an annual report of collections under this rider by April 30th of each year starting April 30, 2022 until the conclusion of this rider.

At the conclusion of the duration of this rider, the Company is authorized to recover or refund any remaining amounts not reconciled at that time under such mechanism as approved by the Commission.

Application of the Phase IV EE&C-C rates shall be subject to annual review and audit by the Commission.

Met-Ed/Penelec/Penn Power/West Penn Statement No. 2-R (Supp)

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

METROPOLITAN EDISON COMPANY
Docket No. M-2020-3020820

PENNSYLVANIA ELECTRIC COMPANY
Docket No. M-2020-3020821

PENNSYLVANIA POWER COMPANY
Docket No. M-2020-3020822

WEST PENN POWER COMPANY
Docket No. M-2020-3020823

PHASE IV ENERGY EFFICIENCY AND CONSERVATION PLAN

**Prepared
Supplemental Rebuttal
Testimony
of
Edward C. Miller**

LIST OF TOPICS ADDRESSED

**Proposed Scale Back of Behavior Programs
Allocation of Common Costs**

1 **I. INTRODUCTION AND BACKGROUND**

2 **Q. Please state your name and business address.**

3 A. My name is Edward C. Miller, and my business address is 800 Cabin Hill Drive,
4 Greensburg, PA 15601.

5
6 **Q. Mr. Miller, by whom are you employed and in what capacity?**

7 A. I am employed by FirstEnergy Service Company, which is a direct subsidiary of
8 FirstEnergy Corp. (“FirstEnergy”), as Manager, Compliance and Development in the
9 Energy Efficiency Department. I report to the Director, Energy Efficiency Compliance
10 and Reporting. I am responsible for compliance and development activities related to
11 energy efficiency and conservation (“EE&C”) programs for the FirstEnergy utilities in
12 Ohio, Maryland, New Jersey, Pennsylvania, and West Virginia. This primarily involves
13 the development of programs and filings to meet the FirstEnergy utilities’ EE&C and/or
14 peak demand reduction (“PDR”) requirements and obligations.

15
16 **Q. Did you previously submit testimony in this proceeding?**

17 A. Yes, I submitted direct testimony (Met-Ed/Penelec/Penn Power/West Penn Statement No.
18 2) and rebuttal testimony (Met-Ed/Penelec/Penn Power/West Penn Statement No. 2-R) in
19 support of the Phase IV EE&C Plan proposed in this proceeding (“Phase IV Plan,”
20 “Proposed Plan,” or “Plan”) by Metropolitan Edison Company (“Met-Ed”), Pennsylvania
21 Electric Company (“Penelec”), Pennsylvania Power Company (“Penn Power”), and West
22 Penn Power Company (“West Penn”) (collectively, the “Companies”).

23

1 **Q. Please briefly describe the subject matter of your supplemental rebuttal testimony in**
2 **this proceeding.**

3 A. I will respond to certain issues raised in the supplemental direct testimony of Geoffrey C.
4 Crandall (OCA Statement No. 1-Supp) submitted on behalf of the Office of Consumer
5 Advocate (“OCA”), specifically concerning his issue with the allocation of common costs
6 to the customer classes and his clarification of his proposed “scale back” of the Companies’
7 behavior programs.

8

9 **Q. Are there any exhibits that you are sponsoring with your supplemental rebuttal**
10 **testimony?**

11 A. No.

12

13 **II. OCA STATEMENT NO. 1-SUPP**

14 **Q. In his supplemental direct testimony, OCA witness Crandall recaps his issue with the**
15 **allocation of common costs to the customers classes and then reiterates his**
16 **recommendation that the common costs be allocated to the customer classes based on**
17 **the percentage of total program budgets. (OCA St. No. 1-Supp, pp. 3-5.) Does**
18 **anything in Mr. Crandall’s supplemental direct testimony change your position on**
19 **the allocation of common costs?**

20 A. No. My position set forth on pages 24-25 of my rebuttal testimony remains unchanged. I
21 believe the common costs should continue to be allocated based on their program specific
22 administrative (e.g., non-incentive) costs, which is consistent with the Companies’
23 allocations in Phase III, instead of being allocated based on the total program specific costs

1 including incentives, which would skew the allocations towards programs with larger
2 incentive budgets.

3

4 **Q. Mr. Crandall also clarifies his recommendation to “scale back” the Companies**
5 **behavior programs, specifically requesting that the Companies “reduce their budget**
6 **for the Behavior modification programs by 50% or more and re-direct those funds to**
7 **the Weatherization subprogram or the Energy Efficient Products Program to fund**
8 **long lived energy efficiency measures.” (OCA St. No. 1-Supp, pp. 5-6.) Do you agree**
9 **with this recommendation as clarified?**

10 A. No. As explained on pages 23-24 of my rebuttal testimony, Mr. Crandall’s recommended
11 “scale back” of the behavior programs should be rejected. Nothing in Mr. Crandall’s
12 supplemental direct testimony changes that position.

13

14 **Q. Does this conclude your supplemental rebuttal testimony?**

15 A. Yes.

Met-Ed/Penelec/Penn Power/West Penn Statement No. 3-R (Supp)

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

METROPOLITAN EDISON COMPANY
Docket No. M-2020-3020820

PENNSYLVANIA ELECTRIC COMPANY
Docket No. M-2020-3020821

PENNSYLVANIA POWER COMPANY
Docket No. M-2020-3020822

WEST PENN POWER COMPANY
Docket No. M-2020-3020823

PHASE IV ENERGY EFFICIENCY AND CONSERVATION PLAN

**Prepared
Supplemental Rebuttal
Testimony
of
Anthony J. Woytko**

LIST OF TOPICS ADDRESSED

Phase IV Cost Recovery Mechanism and Reconciliation

1 **I. INTRODUCTION AND BACKGROUND**

2 **Q. Please state your name and business address.**

3 A. My name is Anthony J Woytko. My business address is 2800 Pottsville Pike, Reading,
4 Pennsylvania, 19605.

5
6 **Q. By whom are you employed and in what capacity?**

7 A. I am employed by FirstEnergy Service Company as an Analyst in Rates and Regulatory
8 Affairs - Pennsylvania.

9
10 **Q. Did you previously submit testimony in this proceeding?**

11 A. Yes, I submitted direct testimony (Met-Ed/Penelec/Penn Power/West Penn Statement No.
12 3) and rebuttal testimony (Met-Ed/Penelec/Penn Power/West Penn Statement No. 3-R) in
13 support of the Phase IV EE&C Plan proposed in this proceeding (“Phase IV Plan” or
14 “Proposed Plan”) by Metropolitan Edison Company (“Met-Ed”), Pennsylvania Electric
15 Company (“Penelec”), Pennsylvania Power Company (“Penn Power”), and West Penn
16 Power Company (“West Penn”) (collectively, the “Companies”).

17
18 **Q. Please briefly describe the subject matter of your supplemental rebuttal testimony in
19 this proceeding.**

20 A. I will respond to certain issues raised in the supplemental direct testimony of Geoffrey C.
21 Crandall (OCA Statement No. 1-Supp) submitted on behalf of the Office of Consumer
22 Advocate (“OCA”), specifically his issues regarding the Companies’ proposed Phase IV
23 EE&C-C Riders (Rider F) and how revenues and costs from the Companies’ offering of

1 peak demand reductions into PJM Interconnection LLC's ("PJM") Forward Capacity
2 Market ("FCM") are credited under the Phase IV EE&C-C Riders.

3
4 **Q. Are you sponsoring any exhibits with your supplemental rebuttal testimony?**

5 A. No.

6
7 **II. OCA STATEMENT NO. 1-SUPP**

8 **Q. OCA witness Crandall says that it appears, based on his review of the Companies'**
9 **informal discovery responses, that the issue with allocation of PJM net revenues in**
10 **Rider F will be resolved, but he cannot confirm because he had not reviewed the**
11 **Companies' rebuttal testimony yet. (OCA St. No. 1-Supp, pp. 2-3.) Do you believe**
12 **Mr. Crandall's issue with the allocation of PJM net revenues in Rider F has been**
13 **resolved?**

14 A. Yes. As explained in my rebuttal testimony, the Companies never intended to allocate the
15 PJM net revenues among the customer classes. Attached to my rebuttal testimony were
16 revised pro forma tariff supplements for Rider F (Met-Ed/Penelec/Penn Power/West Penn
17 Exhibits AJW-1R through AJW-5R), in which the PJM net revenue was made its own
18 variable in the formula (i.e., "PJM"), rather than included in EEC_{Exp1} . The PJM variable
19 clearly offsets the E-Factor in the EE&C-C Rider calculation, as required under the Phase
20 IV Implementation Order. Thus, I believe this issue has been resolved.

21
22 **Q. Does this conclude your supplemental rebuttal testimony?**

23 A. Yes.

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

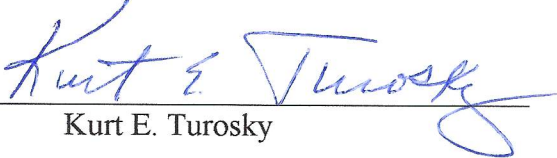
Joint Petition for Consolidation of	:	
Proceedings and Approval of the Phase IV	:	Docket Nos. M-2020-3020820
Energy Efficiency and Conservation Plan	:	M-2020-3020821
of Metropolitan Edison Company,	:	M-2020-3020822
Pennsylvania Electric Company,	:	M-2020-3020823
Pennsylvania Power Company, and West	:	
Penn Power Company	:	

VERIFICATION

I, Kurt E. Turosky, being Director, Energy Efficiency Compliance and Reporting for FirstEnergy Service Company, hereby state that the testimony set forth in Met-Ed/Penelec/Penn Power/West Penn Statement No. 1 is true and correct to the best of my knowledge, information and belief and that if asked orally at a hearing in this matter, my answers would be set forth therein.

I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: February 8, 2021


Kurt E. Turosky

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Joint Petition for Consolidation of	:	
Proceedings and Approval of the Phase IV	:	Docket Nos. M-2020-3020820
Energy Efficiency and Conservation Plan	:	M-2020-3020821
of Metropolitan Edison Company,	:	M-2020-3020822
Pennsylvania Electric Company,	:	M-2020-3020823
Pennsylvania Power Company, and West	:	
Penn Power Company	:	

VERIFICATION

I, Edward C. Miller, being Manager, Compliance and Development in the Energy Efficiency Department of FirstEnergy Service Company, hereby state that the testimony set forth in Met-Ed/Penelec/Penn Power/West Penn Statement Nos. 2, 2-R, and 2-R (Supp) is true and correct to the best of my knowledge, information and belief and that if asked orally at a hearing in this matter, my answers would be set forth therein. I further state that I am sponsoring Met-Ed/Penelec/Penn Power/West Penn Exhibit No. ECM-1R and that it is true and correct to the best of my knowledge, information, and belief.

I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: February 8, 2021



Edward C. Miller

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

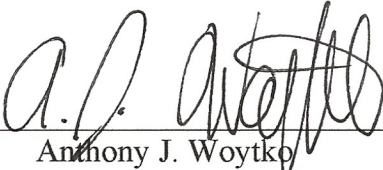
Joint Petition for Consolidation of	:	
Proceedings and Approval of the Phase IV	:	Docket Nos. M-2020-3020820
Energy Efficiency and Conservation Plan	:	M-2020-3020821
of Metropolitan Edison Company,	:	M-2020-3020822
Pennsylvania Electric Company,	:	M-2020-3020823
Pennsylvania Power Company, and West	:	
Penn Power Company	:	

VERIFICATION

I, Anthony J. Woytko, being Analyst in Rates and Regulatory Affairs – Pennsylvania, of FirstEnergy Service Company, hereby state that the testimony set forth in Met-Ed/Penelec/Penn Power/West Penn Statement Nos. 3, 3-R, and 3-R (Supp) is true and correct to the best of my knowledge, information, and belief and that if asked orally at a hearing in this matter, my answers would be set forth therein. I further state that I am sponsoring Met-Ed/Penelec/Penn Power/West Penn Exhibit AJW-1 through AJW-6 and Exhibits AJW-1R through AJW-5R and that they are true and correct to the best of my knowledge, information, and belief.

I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: February 8, 2021



Anthony J. Woytko

Via electronic service only due to Emergency Order at Docket No. M-2020-3019262

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Petitions of Metropolitan Edison Company,	:	M-2020-3020820
Pennsylvania Electric Company, Pennsylvania	:	M-2020-3020821
Power Company, and West Penn Power	:	M-2020-3020822
Company for Approval of their Act 129	:	M-2020-3020823
Phase IV Energy Efficiency and Conservation	:	
Plans	:	

**INTERIM ORDER
CONFIRMING ADMITTED EVIDENCE**

An evidentiary hearing in this matter was held on February 5, 2021.

During the hearing, the following evidence was admitted into the record:

PARTY	NUMBER	DESCRIPTION	ASSOCIATED EXHIBITS
FIRST ENERGY COMPANIES	STMT 1	Direct Testimony of Kurt E. Turosky	
	STMT 2	Direct Testimony of Edward C. Miller	
	STMT 3	Direct Testimony of Anthony J. Woytko	AJW-1 through AJW-5
	STMT 2-R	Rebuttal Testimony of Edward C. Miller	ECM-1R
	STMT 3-R	Rebuttal Testimony of Anthony J. Woytko	AJW-1R through AJW-5R
	STMT 2-R (Supp)	Supplemental Rebuttal Testimony of Edward C. Miller	
	STMT 3-R (Supp)	Supplemental Rebuttal Testimony of Anthony J. Woytko	

OCA	STMT 1	Direct Testimony of Geoffrey C. Crandall	Schedules GCC-1 through GCC-4 and his Verification
	STMT 1-SUPP	Supplemental Direct Testimony of Geoffrey C. Crandall	Schedules GCC-Supp-1 and GCC-Supp-2 and his Verification
	Hearing Exhibit #1	OCA's answer to FE to OCA Set I, No. 3.	
CAUSE-PA	STMT 1	Direct Testimony of Jim Grevatt	Attachment A and his Verification
CAAP	STMT 1-R	Rebuttal Testimony of Susan A. Moore	Her Verification
INDUSTRIAL USERS GROUPS	HEARING EXHIBIT #1	FirstEnergy Companies' answers to MEIUG/PICA/WPPII to FE Set I, Nos. 5, 10, 15, and 16.	
PENN STATE	STMT 1	Direct Testimony of James L. Crist	His Verification
	STMT 1-R	Rebuttal Testimony of James L. Crist	

The Company's statements were admitted subject to the Company filing verifications by Monday, February 8, 2021. The Company timely filed the verifications. Therefore, the PPL statements are considered admitted.

THEREFORE,

IT IS ORDERED:

1. That, by **4:00 p.m. on February 12, 2021**, the parties shall file the admitted evidence, with appropriate verifications, with the Commission's Secretary's Bureau pursuant to 52 Pa.Code § 5.412a.

M-2020-3020820, M-2020-3020821, M-2020-3020822, M-2020-3020823 JOINT PETITION FOR CONSOLIDATION AND APPROVAL OF THE ACT 129 PHASE IV ENERGY EFFICIENCY AND CONSERVATION PLAN OF METROPOLITAN EDISON COMPANY, PENNSYLVANIA ELECTRIC COMPANY, PENNSYLVANIA POWER COMPANY, AND WEST PENN POWER COMPANY

Revised 1/19/21

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