


COMMONWEALTH OF PENNSYLVANIA



OFFICE OF CONSUMER ADVOCATE

555 Walnut Street, 5th Floor, Forum Place
Harrisburg, Pennsylvania 17101-1923
(717) 783-5048
800-684-6560

 @pa_oca

 /pennoca

FAX (717) 783-7152
consumer@paoca.org

April 27, 2020

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120

Re: Act 129 Energy Efficiency and Conservation
Program Implementation Phase IV
Docket No. M-2020-3015228

Dear Secretary Chiavetta:

Attached for electronic filing are the Comments of the Office of Consumer Advocate to the Tentative Implementation Order in the above-referenced proceeding.

Copies have been served per the attached Certificate of Service.

Respectfully submitted,

/s/ Darryl A. Lawrence

Darryl A. Lawrence
Senior Assistant Consumer Advocate
PA Attorney I.D. # 93682
E-Mail: DLawrence@paoca.org

Enclosures:

cc: Joseph Sherrick, Bureau of Technical Utility Services (**email only**)
Adam Young, Law Bureau (**email only**)
Certificate of Service

*287067

CERTIFICATE OF SERVICE

Re: Act 129 Energy Efficiency and Conservation : Docket No. M-2020-3015228
Program Implementation Phase IV :

I hereby certify that I have this day served a true copy of the following document, the Office of Consumer Advocate's Comments to the Tentative Implementation Order, upon parties of record in this proceeding in accordance with the requirements of 52 Pa. Code §1.54 (relating to service by a participant), in the manner and upon the persons listed below:

Dated this 27th day of April 2020.

SERVICE BY E-MAIL ONLY

Richard A. Kanaskie, Esquire
Bureau of Investigation & Enforcement
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor
Harrisburg, PA 17120

John R. Evans, Esquire
Office of Small Business Advocate
555 Walnut Street
1st Floor, Forum Place
Harrisburg, PA 17101-1923

Derrick Price Williamson, Esquire
Barry A. Naum, Esquire
Spilman Thomas & Battle PLLC
Industrial Energy Consumers of PA
1100 Bent Creek Blvd.
Suite 101
Mechanicsburg, PA 17050

/s/ Darryl A. Lawrence
Darryl A. Lawrence
Senior Assistant Consumer Advocate
PA Attorney I.D. # 93682
E-Mail: DLawrence@paoca.org

Christy M. Appleby
Assistant Consumer Advocate
PA Attorney I.D. # 85824
E-Mail: CAAppleby@paoca.org

Counsel for:
Office of Consumer Advocate
555 Walnut Street
5th Floor, Forum Place
Harrisburg, PA 17101-1923
Phone: (717) 783-5048
Fax: (717) 783-7152
Dated: April 27, 2020
*287061

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Act 129 Energy Efficiency and Conservation : Docket No. M-2020-3015228
Program Implementation Phase IV :

COMMENTS OF THE
OFFICE OF CONSUMER ADVOCATE

Darryl A. Lawrence
Senior Assistant Consumer Advocate
PA Attorney I.D. # 93682
E-Mail: DLawrence@paoca.org

Christy M. Appleby
Assistant Consumer Advocate
PA Attorney I.D. # 85824
E-Mail: CApplby@paoca.org

Counsel for:
Tanya J. McCloskey
Acting Consumer Advocate

Office of Consumer Advocate
555 Walnut Street
5th Floor, Forum Place
Harrisburg, PA 17101-1923
Phone: (717) 783-5048
Fax: (717) 783-7152
Dated: April 27, 2020

TABLE OF CONTENTS

| | |
|--|----|
| I. INTRODUCTION | 1 |
| II. COVID-19 ISSUES | 3 |
| III. IMPLEMENTATION ORDER ISSUES | 6 |
| A. Proposed Reductions In Electric Consumption | 6 |
| B. Prescription Of Low Income Measures And Carve Out | 13 |
| C. Proposed Reductions In Peak Demand | 14 |
| 1. Demand Response Programs Should Be Allowed To Continue Without The Requirement of Bidding Into The PJM PSA Mechanism. | 14 |
| 2. Other Issues..... | 18 |
| D. Determination Of Phase IV Allowable Costs..... | 19 |
| E. PJM’s Forward Capacity Market | 20 |
| IV. CONCLUSION | 21 |

I. INTRODUCTION

The Office of Consumer Advocate (OCA) submits these Comments regarding the Pennsylvania Public Utility Commission's (PUC's or Commission's) Tentative Implementation Order (T.O.) for Phase IV of the Act 129 Energy Efficiency and Demand Response Programs in unprecedented times. Our Commonwealth and our Nation continue to deal with the significant impacts of the COVID-19 pandemic which have affected our homes, our businesses and our daily lives. It is evident that we can no longer proceed in a "business as usual" manner, but we also lack certainty as to the adjustments we will have to make in the future. In light of these circumstances, the OCA questions whether we should proceed with attempting to establish Phase IV of the Act 129 Energy Efficiency and Conservation (EE&C) and Demand Response (DR) programs at this time. Rather, the OCA recommends that we delay the implementation of Phase IV and continue our efforts on Phase III until such time as there is more certainty as to our economic future and the health and safety rules under which we may need to operate for some time to come.

The OCA will discuss in more detail its concerns and recommendations in Section II below.¹ Of particular concern, however, is whether the *Pennsylvania Act 129 Phase IV Energy Efficiency and Peak Demand Reduction Market Potential Study* (EEPDR Potential Study) and the *Pennsylvania Act 129 Phase IV Demand Response Potential Study* (DDR Potential Study) conducted by the Statewide Evaluator (SWE), upon which the Phase IV efficiency targets are

¹ The OCA was assisted in its review of the EEPDR and DDR Potential Studies and the Commission's Tentative Order by Stacy Sherwood of Exeter Associates. Ms. Sherwood is an Economist with Exeter Associates, Inc. At Exeter, Ms. Sherwood develops utility service assessments, provides bill and rate analysis, and assesses and evaluates the effectiveness of energy conservation and efficiency programs. Prior to joining Exeter, Ms. Sherwood served as an Assistant Director with the Maryland Public Service Commission (PSC). At the PSC, she performed analysis on the EmPOWER Maryland energy efficiency and demand response programs, the Exelon Customer Investment Fund, and served as lead analyst for the EmPOWER Maryland limited income programs.

based, remain valid in these changed economic times. The assumptions underlying many aspects of the EEPDR Potential Study were based on 2018 data and are no longer relevant or valid under today's circumstances. This could greatly alter any conclusion about the appropriate consumption reduction targets and the available budget for demand response programs. Similar questions exist as to the Dispatchable Demand Response Potential Study (DDR Potential Study).

In addition, the basic approach to program design for both the remainder of Phase III and Phase IV may need to change dramatically to meet new health and safety requirements. Even the types of programs may need to change as we gain a better understanding of our uses of homes, businesses, and industries. The short time frame between now and establishing the targets and designing programs, as well as the prospect of having to significantly modify targets and programs in the future, suggests that we not waste our scarce resources on this endeavor, but refocus our efforts on how best to continue with Phase III until these issues can be addressed, and the EEPDR and DDR Potential Studies can be revisited in light of the changed economic circumstances.

While the OCA is recommending that we pause our work on Phase IV at this time, the OCA will provide comments in Section III as to the Commission's Tentative Implementation Order (T.O.). The OCA will not address every aspect of the Tentative Order but will address the recommendations in the Tentative Order that raise significant concerns or require clarification. The Comments on these provisions should also largely address the issues raised by Chair Brown-Dutrieuille and Commissioner Place. The OCA's Comments on the Tentative Order will be based on the EEPDR and DDR Potential Studies as presented and the circumstances as of the issuance of the Tentative Order. As noted, however, with the significant change in circumstances, these comments may not be applicable to the changed circumstances that we face and should be reviewed with this caveat in mind.

II. COVID-19 ISSUES

Since the Commission issued the *Act 129 Phase IV Energy Efficiency and Peak Demand Reduction Market Potential Studies* on March 2, 2020, and its Tentative Implementation Order on March 12, 2020, both Pennsylvania and our Nation have undergone significant change as a result of the COVID-19 pandemic. Pennsylvania is now under a statewide stay at home order, our non-essential businesses have been closed, our schools have been closed for the remainder of the academic year, and many employees now work from home rather than in their office spaces. The immediate impacts of these changes on our economic circumstances is not fully known, but we already know that as many as 1.3 million unemployment claims have been filed in Pennsylvania, even before the unemployment program for self-employed workers and independent contractors has opened. We also know that with the temporary closure of many businesses and industries, production and output has been reduced for the commercial and industrial sector, but has increased for the residential sector as people stay at home. All of these changes have a significant impact on electricity usage, both energy usage and peak demand. The OCA anticipates that the repercussions of the pandemic will not be fully known for some time to come. One thing is clear, though, the pandemic will impact operations in our energy sector and our Commonwealth for some time to come.

The OCA respectfully submits that given the significant changes occasioned by the COVID-19 pandemic, moving forward with setting targets for an Act 129 Phase IV EE&C/DR Program and attempting to design programs under the changed economic, health and safety circumstances would not be a prudent and reasonable use of resources at this time. It is very likely that any decisions or program designs made in the short term based on data and programs that preceded the COVID-19 pandemic will need to be revisited and modified significantly as we move

forward. There are three significant areas that concern the OCA at this time. The first is the validity, and even relevance, of the assumptions underlying the EEPDR Potential Study and the DDR Potential Study. The second concern is the economic impact of the COVID-19 pandemic which may change the income available to homes and businesses to participate in energy efficiency or demand response programs. The third concern is the new health and safety requirements that may impact program design and cost, particularly as it concerns the deployment of programs that are on-site at a residence or business.

It is the OCA's understanding that the EEPDR Potential Study used 2018 as a baseline and avoided cost data from a time period prior to the significant impacts of the COVID-19 stay at home orders. As a result, the data underlying the EEPDR Potential Study simply does not reflect the likely economic impacts of the COVID-19 pandemic. On March 27, 2020, the head of the International Monetary Fund noted that the global economy has entered a recession. While it is not known at this time whether the economy will rebound when COVID-19 is contained, we do know that recessions generally decrease or flatten energy usage and demand.² This will impact the load projections in the EEPDR Potential Study, a key assumption driving the consumption reduction targets.

Additionally, the economic uncertainty and the impacts of the loss of income, even in the short term, by many customers may make customers hesitant to invest in energy efficiency. This may limit the amount of energy efficiency that can be achieved, at least in the short term, and it may impact program design. For example, incentive levels may need to be set at more robust levels to address customer reluctance to participate in energy efficiency programs or purchase

² While this is true historically, we are currently seeing higher usage for residential customers due to stay at home orders. It is uncertain how much of this impact will continue for residential customers when stay at home orders are lifted.

more energy efficient equipment at a higher up front cost. This change, however, could impact the determination of achievable potential and subsequently, the Act 129 consumption reduction targets. Other changes may be seen in the availability of equipment for purchase and even changes in usage profiles that might impact cost-effectiveness of individual measures.

Finally, it is evident that new health and safety measures, such as the requirement for personal protective equipment, social distancing, and limiting on-site work, will be in force for the foreseeable future. Many EDCs have already suspended non-emergency on-site work under their LIURP programs as well as on-site work on the Act 129 programs. Some utilities in other states have moved to the use of such tools as virtual audits rather than on-site audits.³ Program design and delivery will need to change, potentially impacting the range of programs that can be offered to achieve the targets and the cost-effectiveness of the different measures. The extent of these changes and the length of time new health and safety measures need to be in place are unknown at this time. In addition, it is not known whether customers will even be willing to accept energy efficiency services on their premises even with health and safety precautions.

Given these unusual circumstances, the OCA recommends that consideration of Phase IV EE&C Plan development be paused. The Commission should first direct the SWE to either update the EEPDR Potential Study to reflect the changed circumstances occasioned by the COVID-19 pandemic response or undertake a sensitivity analysis of the EEPDR Potential Study to capture the impacts of the COVID-19 pandemic response. A similar approach should be done for the DDR Potential Study. The updated Potential Studies can then provide a sounder basis for determining

³ See, e.g., <https://www.publicpower.org/periodical/article/mass-public-power-utilities-offer-virtual-energy-efficiency-audits-response> and <https://www.utilitydive.com/news/efficiency-sector-gets-creative-to-stem-covid-19-job-losses-maintain-energ/575931/>

consumption reduction and demand response targets for Phase IV and can better inform program design. In the interim, the OCA recommends that the Commission require the EDCs to continue with Phase III, seeking to achieve the Phase III targets through next year, and continuing to target achievement of savings at the same general pace as was done in Phase III (approximately 15% of the Phase III target level for each year) until a Phase IV can commence. The EDCs should also convene their contractors and stakeholder groups to discuss any necessary changes to program design and program delivery of the existing Phase III programs to meet new health and safety requirements, the changed economic circumstances, and the potential to continue to achieve savings at approximately the same pace as in Phase III.

To be clear, the OCA believes that energy efficiency programs will be critical for residential customers as they contend with new and differing uses of their homes, increased energy usage and increased expenses as they remain at home, and possible reduced income from job loss or reduced hours. In the OCA's view, we should continue to deliver those energy efficiency and demand response programs in Phase III that can be safely delivered and maintain the ability to move forward quickly with additional work when it is safe to do so. We should also examine what incentives and steps may be necessary to re-engage customers in energy efficiency programs as well as look for new, innovative program delivery mechanisms. For the time being, however, this should be the focus of our efforts before deciding on the appropriate targets and structure for Phase IV.

III. IMPLEMENTATION ORDER ISSUES

A. Proposed Reductions In Electric Consumption

The Commission's March T.O. proposed a statewide consumption reduction goal of 4,512,829 MWh and a statewide peak demand reduction target of 880 MW for Phase IV of the Act

129 EE&C programs. The targets are based on the results of the SWE’s EEPDR and DDR Potential Studies, which outlined statewide and EDC-level potential reductions based on the budget constraints, customer carve-outs, the 2021 Technical Reference Manual (TRM), and other requirements of Act 129.⁴ The majority of the reductions, 58% of consumption and 59% of demand, are allocated between PPL and PECO. The consumption reduction goal is equivalent to 3.1% of the 2009-2010 reference load, and the demand reduction goal is equivalent to 3.3% of the 2007-2008 reference load. T.O. at 13, 35-36. Table 1 provides a summary of the Commission’s proposal.

| Table 1. PUC Proposed Consumption and Peak Demand Reduction Targets | | | | |
|--|---|---|--|---|
| | Consumption Reduction Target (MWh) | Percentage of Statewide Consumption Reduction Target | Peak Demand Reduction Target (MW) | Percentage of Statewide Peak Demand Reduction Target |
| DPL | 347,084 | 8% | 67 | 8% |
| Met-Ed | 463,215 | 10% | 85 | 10% |
| Penelec | 437,676 | 10% | 91 | 10% |
| Penn Power | 128,909 | 3% | 22 | 2% |
| West Penn | 504,951 | 11% | 95 | 11% |
| PPL | 1,250,157 | 28% | 244 | 28% |
| PECO | 1,380,837 | 30% | 276 | 31% |
| TOTAL: | 4,512,829 | 100% | 880 | 100% |

It is important to note that the Commission did not propose a DR target or allocate a budget for DR programs. The peak demand reduction target is derived from the expected reduction in coincident peak demand estimated from energy efficiency efforts. T.O. at 35-36. The Commission

⁴ The EDCs include Duquesne Light Company (DLC), Metropolitan Edison Company (Met-Ed), Pennsylvania Electric Company (Penelec), Pennsylvania Power Company (Penn Power), West Penn Power Company (West Penn), PPL Electric Utilities Corporation (PPL), and PECO Energy Company (PECO).

found that the inclusion of DR programs would lower the achievable consumption reductions and stated that it prefers longer-lasting peak demand reduction, such as from energy efficiency measures, which have an average measure life of 10.7 years over DR programs, which only offer annual incremental reductions. T.O. at 34.

Act 129 limits the annual statewide spending to 2% of 2006 revenues, which equates to \$244.5 million per year or \$1,222.9 million over the five years that constitute Phase IV. Phase IV is forecasted to result in a statewide acquisition cost of \$271/MWh, with the individual EDC acquisition costs ranging from \$233/MWh to \$310/MWh. A breakdown of the individual EDC budgets and the corresponding acquisition cost is provided in Table 2.

| Table 2. PUC Proposed Phase IV Total Budget and Acquisition Cost | | |
|---|--|----------------------------------|
| | Budget Allocation (millions \$) | Acquisition Cost (\$/MWh) |
| DPL | 97.7 | 281.57 |
| Met-Ed | 124.3 | 268.42 |
| Penelec | 114.9 | 262.46 |
| Penn Power | 33.3 | 258.31 |
| West Penn | 117.8 | 233.32 |
| PPL | 307.5 | 245.97 |
| PECO | 427.4 | 309.51 |
| TOTAL: | 1,222.9 | 271.00 |

The OCA would point out that although the T.O. proposes higher budgets than the approved Phase III budgets, there is a significant difference in what ratepayers will be receiving at those spending levels. Phase IV’s statewide consumption reduction target is lower than the statewide consumption reduction target in Phase III by 21%, or approximately 1,198,000 MWh, as shown in Table 3. The most significant decrease in consumption reduction is recognized by

PECO, with a Phase IV target that is 70%, or 582,000 MWh, less than the prior phase. This reduction is equivalent to 1.5 years of PECO’s forecasted plan savings in Phase III.⁵

Table 3. Comparison of Approve Phase III and Proposed Phase IV's Consumption Reduction Target and Budgets

| | Approved Phase III | | Proposed Phase IV | | Variance | |
|---------------|------------------------------------|---------------------------------|------------------------------------|---------------------------------|------------------------------|-------------------|
| | Consumption Reduction Target (MWh) | Budget Allocation (millions \$) | Consumption Reduction Target (MWh) | Budget Allocation (millions \$) | Consumption Reduction Target | Budget Allocation |
| DPL | 440,916 | 88.0 | 347,084 | 97.7 | 79% | 111% |
| Met-Ed | 599,352 | 114.4 | 463,215 | 124.3 | 77% | 109% |
| Penelec | 566,168 | 114.9 | 437,676 | 114.9 | 77% | 100% |
| Penn Power | 157,371 | 30.0 | 128,909 | 33.3 | 82% | 111% |
| West Penn | 540,986 | 106.0 | 504,951 | 117.8 | 93% | 111% |
| PPL | 1,443,035 | 292.1 | 1,250,157 | 307.5 | 87% | 105% |
| PECO | 1,962,659 | 384.3 | 1,380,837 | 427.4 | 70% | 111% |
| TOTAL: | 5,710,487 | 1,129.7 | 4,512,829 | 1,222.9 | 79% | 108% |

As programs mature and the utilities offer more comprehensive portfolios, the OCA anticipates that acquisition costs will increase, which in turn will decrease the level of savings that can be achieved based upon the budget limitations of Act 129. The OCA is concerned, however, that the increase in acquisition costs is largely unexplained and inconsistent with Phase III actual spending.

Table 4 below, compares the EDC acquisition costs of the approved Phase III and proposed Phase IV. Statewide, acquisition costs are forecasted to increase by 37%, or \$73.20/MWh. On the EDC level, Phase IV acquisition costs are forecasted to increase by a range of 19% to 58% over Phase III acquisition costs.

⁵ This is based on the assumption that a utility would forecast to achieve 15% of the total target for a Phase.

| Table 4. Act 129 Approved Phase III and Proposed Phase IV Acquisition Costs | | | |
|--|------------------------------------|-----------------------------------|-----------------|
| | Approved Phase III (\$/MWh) | Proposed Phase IV (\$/MWh) | Variance |
| DPL | \$200 | \$282 | 141% |
| Met-Ed | 191 | 268 | 141% |
| Penelec | 203 | 263 | 129% |
| Penn Power | 190 | 258 | 136% |
| West Penn | 196 | 233 | 119% |
| PPL | 202 | 246 | 122% |
| PECO | 196 | 310 | 158% |
| TOTAL: | \$198 | \$271 | 137% |

The comparison between approved Phase III acquisition costs and proposed Phase IV acquisition costs shows a significant variance. The differential is even more pronounced when comparing Program Year 10 (PY 10) actual acquisition costs with the proposed Phase IV acquisition costs. Table 5 presents the EDCs' most recent actual acquisition costs versus those proposed by the EEPDR Potential Study.

| Table 5. Comparison of Actual PY10 and Proposed Phase IV Acquisition Costs | | | |
|---|-------------------------------------|---|-----------------|
| | Actual PY10 (\$/MWh) | Proposed Phase IV (\$/MWh) | Variance |
| DPL | \$178.5 | \$281.6 | 158% |
| Met-Ed | 117.9 | 268.4 | 228% |
| Penelec | 104.7 | 262.5 | 251% |
| Penn Power | 118.6 | 258.3 | 218% |
| West Penn | 139.4 | 233.3 | 167% |
| PPL | 150.4 | 246.0 | 164% |
| PECO | 150.0 | 309.5 | 206% |
| TOTAL: | \$140.0 | \$271.0 | 194% |

The OCA is concerned that such a significant increase in acquisition costs will lead to reduced energy consumption targets and perhaps the elimination of cost-effective demand response that may otherwise have been able to continue or move forward. The EEPDR Potential Study indicated that the biggest driver for the increase in acquisition costs was the projected decrease in residential lighting savings. EEPDR Potential Study at 8. The OCA’s expert performed an analysis of the impact of the residential lighting programs on the acquisition costs. Using PECO as an example, in Phase III PY 10, which covers the period June 2018 – May 2019, PECO had an acquisition cost of \$150.01/MWh. To determine the impact of residential lighting on acquisition costs, the savings from residential lighting in PY10 were removed, which accounted for approximately 30% of the total actual savings, and 10% of the costs.⁶ Without the residential lighting savings, PECO’s acquisition costs increased by \$57/MWh, to \$207/MWh. Compared to

⁶ In PY10, PECO recognized 69,771 MWh of verified gross savings from standard light-emitting diodes (LEDs) and 60,097 MWh of verified gross savings from specialty LEDs in the residential program. While this accounted for 54% of the total verified gross savings recognized from the residential program, the low-cost nature of lighting rebates significantly reduces the costs. To be conservative, the assumption was made that only 10% of the residential costs are associated with lighting. The residential program recognized \$25,943,000 in expenditures; therefore, 10% of the costs would be \$2,594,300.

EEPDR Potential Study's acquisition costs for PECO, a lack of residential lighting would only account for 36% of the increase from PY10 acquisition costs, leaving 64% of the increased costs unexplained.

A similar analysis was conducted for the other EDCs based on average acquisition costs for Phase III through PY 10. Depending upon the utility, with residential lighting removed, the OCA's analysis found that the average annual acquisition costs increased anywhere from 2% to 33%. All of the average acquisition costs without residential lighting, however, remained below the proposed Phase IV acquisition costs.

The OCA submits that further analysis of the EEPDR Potential Study is necessary to determine the validity of the Phase IV acquisition costs which are projected to nearly double statewide for the next five years.⁷ Historical performance indicates that the EDCs will be able to obtain the proposed consumption reduction targets using only a portion of their respective budgets. If this does occur, EDCs will be able to utilize the remaining Phase IV budgets to "bank" rollover savings for Phase V, ultimately reducing the level of lifetime benefits generated in Phase V. Additionally, the decrease in potential consumption reduction for Phase IV compared to Phase III as a result of the projected increased costs may also be impacting the Commission's decision to forego a peak demand reduction goal that is inclusive of DR program efforts. If the additional EEPDR Potential Study savings can be generated with fewer dollars in the budget cap, there may be sufficient funding to provide DR programs.

Exclusive of the COVID-19 impacts, the OCA submits that the SWE EEPDR Potential Study, upon which the consumption reduction targets are based, requires further analysis before it can be used as a basis for establishing Phase IV program parameters. The EEPDR Potential Study

⁷ This analysis is separate and apart from an analysis of the impacts of COVID-19. It is first necessary to ensure the reasonableness of the underlying assumptions and study before considering the COVID-19 impacts.

analysis does not appear to give sufficient weight to prior program experience and measure offerings that would suggest lower acquisition costs and greater achievable savings. The OCA recommends a more thorough review of the EEPDR Potential Study before setting consumption reduction targets or making final decisions regarding the inclusion of a demand response component to Phase IV. As discussed in Section II., though, the EEPDR Study should be revisited or at a minimum additional sensitivity analyses should be run to address the impacts of COVID-19.

B. Prescription Of Low Income Measures And Carve Out

The T.O. proposes to retain the requirement that all EDC EE&C Plans include specific energy efficiency measures for low income households at or below 150% of the Federal Poverty Level. T.O. at 15-18. The OCA supports the continuation of this requirement. The Commission has also set the low income savings target at 5.8% of the total consumption reduction target based on the EEPDR Potential Study. T.O. at 17. The OCA is concerned, however, that this consumption reduction target may be understated. As discussed in Section III.A. above, it appears as if the acquisition costs in the EEPDR Potential Study may be high, thus impacting the level of achievable savings. This would impact the level of savings that can be achieved, including the low income savings. The OCA would also note that the minimum low income savings target was established by PECO's low income potential, which has the highest projected acquisition cost. T.O. at 16. By contrast, the EEPDR Potential Study identified Penn Power as having the highest low income potential of 9.4% of its consumption reduction target, almost double that of PECO. T.O. at 16.

The OCA recommends that if the Commission revisits the acquisition costs contained in the EEPDR Potential Study, that the low income potential also be revisited as the low income minimum savings threshold could be increased if acquisition costs decrease.

The Commission also sought comment on harmonizing the management and spending of Act 129 low income funds with LIURP. T.O. at 18. This topic is likely best addressed in the stakeholder process and during program design. The programs, however, should be additive of one another, not substitutes or replacements for one another. The OCA would also note that many of the requirements of eligibility for LIURP, and the prioritization for LIURP, may limit participation in the broader Act 129 programs if those requirements were applied to Act 129 programs.

C. Proposed Reductions In Peak Demand

1. Demand Response Programs Should Be Allowed To Continue Without The Requirement of Bidding Into The PJM PSA Mechanism.

In the T.O., the Commission concluded that Phase III's demand response (DR) design proved difficult to quantify and value the capacity impacts of the Phase III Act 129 DR programs. T.O. at 26-31. As a result, the Commission directed the SWE to evaluate a model that would allow DR reductions to be valued at the wholesale level within PJM's Peak Shaving Adjustment (PSA) mechanism, which allows for summer-only products. The DDR Study identifies several issues with aligning Phase IV demand response with the PJM PSA mechanism to generate the greatest revenue streams. The SWE could not develop a single program design with parameters that would maximize the benefits for all EDC's DR programs due to varying load profiles and weather conditions. DDR Potential Study at 24. Furthermore, the timeline to bid into the PJM PSA is not in line with the approval timelines for Act 129. Therefore, EDCs would likely need to depend heavily on incremental auctions in order to participate in the PJM PSA mechanism, which has

uncertainty concerning the clearing prices compared to those from the Base Residual Auction (BRA). DDR Potential Study at 23.

Based on the DDR Potential Study, the Commission determined that establishing a peak demand reduction target inclusive of savings from a DR program would reduce consumption reduction potential if a portion of the budget cap was allocated strictly to DR programs. In particular, by not allocating 5.2% of the statewide Phase IV budget to DR programs, the Commission concluded that an additional \$35 million in net TRC benefits could be recognized from consumption reduction. T.O. at 33. In addition to the increase in net benefits, the Commission also noted that incremental peak demand reduction from EE measures produces longer savings due to the useful life of the measures, and that the Commission's preference is to have lasting peak demand reductions that (1) persist after Phase IV concludes; (2) provide year-round savings; and (3) can be recognized in PJM's Forward Capacity Market (FCM).⁸ T.O. at 34-35. As a result, no peak demand reduction target was set for DR programs and no budget was allocated to DR programs.

The OCA is concerned with the abandonment of DR programs for all EDCs based on the DDR Potential Study and the use of the PJM PSA mechanism. The OCA appreciates the Commission's concern with attempting to quantify and value the impacts of demand response programs. Even with these difficulties, Pennsylvania's EDCs that had a demand response target in Phase III have implemented programs that are being shown to be cost effective. The OCA would note that in PY 9, the EDCs were able to deliver extremely cost-effective demand response programs. Table 6, which is Table12 from the DDR Potential Study, shows the following:

⁸ As discussed in Section III.E., the OCA has some concerns regarding the energy efficiency being bid onto the FCM. The OCA submits, though, that FCM participation of EE demand reductions should not be considered a reason to forego demand response programs.

TABLE 6 PROGRAM YEAR 9 DEMAND RESPONSE PROGRAM COST-EFFECTIVENESS

| EDC | TRC Costs (\$1,000) | TRC Benefits (\$1,000) | TRC Ratio |
|----------------|---------------------|------------------------|-----------|
| PECO | \$4,924 | \$13,960 | 2.84 |
| PPL | \$1,491 | \$5,656 | 3.79 |
| Duquesne Light | \$1,640 | \$5,442 | 3.32 |
| FE: Met-Ed | \$1,374 | \$3,901 | 2.84 |
| FE: Penelec | \$0 | \$0 | N/A |
| FE: Penn Power | \$821 | \$2,840 | 3.46 |
| FE: West Penn | \$1,581 | \$6,952 | 4.40 |
| Statewide | \$11,831 | \$38,751 | 3.28 |

Source: DDR Potential Study Table 12: Program Year 9 DR Cost-Effectiveness <http://www.puc.pa.gov/pdocs/1656475.pdf>, p 21.

Even though DR may not be cost-effective for every EDC in the Commonwealth in the long term, several EDCs have made significant capital investments in DR programs, such as PECO’s air conditioning switches, that may continue to prove cost-effective in future phases of Act 129 Plans, even with the changes to calculating the DR benefits per the 2021 TRM. Additionally, the DDR Potential Study does not appear to consider such benefits as residential behavior demand response that may help strengthen the benefits offered through advanced metering infrastructure (AMI). Pennsylvania EDCs and their ratepayers have invested billions of dollars in AMI that should be considered in designing appropriate programs. The OCA would also note, that as discussed above in Section III.A., if the acquisition costs contained in the EEPDR Potential Study are overstated, as they seem to be, additional budget would be available to support demand response programs.

While the Commission bases its determination to dedicate the entire Phase IV budget to consumption reduction on the finding that it would provide a greater statewide net benefit than including demand response projected in the DDR Potential Study, eliminating the requirement to participate in the PJM PSA mechanism may render different results. The Commission should consider whether EDC-specific approval for demand response programs may result in a greater net benefit for that EDC and its ratepayers. Additionally, requiring only measures for consumption

reduction may limit the EDCs' ability to provide a comprehensive measure mix. If an EDC is able to cost-effectively meet its potential consumption reduction, along with a demand response program, the OCA recommends that it should be able to file a demand response program as part of its plan even if the DR savings cannot be valued through the PJM PSA mechanism.⁹

The OCA's expert conducted an analysis to determine the potential benefits of continuing demand response programs in the same manner as Phase III. Without a requirement to bid the demand reductions into the PJM PSA, the OCA's analysis found that the Phase IV portfolio could capture more net benefits than energy efficiency portfolios alone. Based on the PY 9 demand response programs costs and benefits (without a requirement to bid into the PJM PSA), it was estimated that an EE and DR portfolio would result in \$130 million in additional net benefits than that forecasted if Phase IV was only EE&C.¹⁰ While these benefits were calculated based upon the 2016 TRM and would be discounted under the 2021 TRM, it is evident that the benefits of continuing DR programs from Phase III may result in higher benefits than projected under the DDR Study. Table 7 shows the following results:

⁹ By way of example, if PECO were to offer smart thermostats as part of its residential portfolio, the utility could also enroll that thermostat into its DR program, since it has the infrastructure in place. Based upon the T.O., PECO would have to forgo that opportunity because, as proposed, it cannot dedicate funds to run a DR program in Phase IV.

¹⁰ To conduct the analysis, certain assumptions had to be made. It was assumed that the Phase III programs would be continued at the same benefit level as in PY 9 for the five year term of Phase IV. The DR expenditures were then reduced from the Phase IV budgets to develop the EE budget. The EE budget was divided by the Phase IV EE acquisition costs. The TRC costs and benefits were based upon the cost of TRC cost and benefits per megawatt-hour in the SWE projections for Phase IV.

TABLE 7 EE & DR PHASE IV COST-EFFECTIVENESS

| | TRC Costs (\$MM) | TRC Benefits (\$MM) | TRC Net Benefits (\$MM) | Ratio |
|-------------------------|-----------------------------|--------------------------------|--|--------------|
| PECO (EE & DR) | 627 | 1,030 | 403 | 1.64 |
| PPL (EE & DR) | 508 | 918 | 410 | 1.81 |
| Duquesne (EE & DR) | 134 | 208 | 74 | 1.55 |
| Met-Ed (EE & DR) | 213 | 368 | 155 | 1.73 |
| Penelec (EE only) | 188 | 303 | 115 | 1.61 |
| Penn Power (EE & DR) | 49 | 78 | 29 | 1.58 |
| West Penn (EE & DR) | 185 | 308 | 123 | 1.66 |
| Total | 1,904 | 3,212 | 1,309 | 1.69 |
| Phase IV Proposed No DR | 1,894 | 3,073 | 1,179 | 1.62 |
| Difference | 10 | 139 | 130 | 0.06 |

As this analysis concluded, if the EDCs were able to offer the same demand response programs in Phase IV as in PY 9 of Phase III without the requirement to bid the demand reductions in the PJM PSA mechanism, the portfolios could capture more net benefits over the five years of Phase IV compared to the EEPDR and DDR Potential Studies which projected a \$35 million decrease in statewide TRC benefits.

The OCA recommends that the Commission allow EDCs to include a cost-effective DR program in Phase IV, particularly those EDCs that have existing capital infrastructure. The Commission should not require that the reductions be bid into the PJM PSA mechanism but that option should be left to the EDC.

2. Other Issues

In the T.O., the Commission proposed that the EE&C Plans include a peak demand reduction target equal to the expected reduction in coincident peak demand estimated in the EEPDR Potential Study. T.O. at 36. The T.O. further proposes that the EE&C Plan be designed to achieve at least 15 percent of the peak demand reduction per program year, as with the

consumption reduction targets. T.O. at 38. The OCA is concerned that this requirement may be difficult to achieve.

Under the proposal in the T.O., peak demand reduction is not likely to come from demand response programs, since there will not be a budget for such programs in Phase IV. That means that the peak demand reduction will be based upon the energy efficiency measure mix alone. But, the consumption and peak demand reductions will not necessarily be 1 to 1. Energy efficiency programs are designed to drive consumption reduction and not peak demand reductions, therefore, peak demand reductions will be dependent upon the measure/program ramp-up and measure mix of the energy efficiency programs. While EDCs should strive to achieve 15% of the demand reduction target, making it a plan requirement may impact the ramp up of measure offerings and/or the completion of projects.

D. Determination Of Phase IV Allowable Costs

At pages 63-68 of the T.O., the Commission discusses the Phase IV allowable costs. As part of that discussion, the Commission proposes that EDCs be required to submit an EE&C Plan that shows at least 50% of all spending allocated to incentives and less than 50% of all spending allocated to non-incentive cost categories. The OCA cautions that this requirement may be to the detriment of the low income program components. While the OCA agrees that it is important to have a higher level of incentives¹¹ budgeted than non-incentive costs in general, a dedicated low income program does not have high levels of incentives as the measure costs are typically covered as part of the program rather than as a match or offset to consumer spending. In addition, low income programs may not even classify expenditures in this manner. The OCA would recommend

¹¹ This may be particularly important given the economic disruptions of the COVID-19 pandemic.

that the dedicated low income programs be removed when evaluating the level of incentive to non-incentive costs to meet this requirement.

E. PJM's Forward Capacity Market

In his Statement, Commissioner Place requests comments on the Commission's proposal to require an EDC to bid at least a portion of the peak demand reductions into PJM's Forward Capacity Market. See, T.O at 73-75. Any proceeds from the resources are to be used to reduce Act 129 surcharges, but any PJM deficiency charges for underperformance would also be charged to customers through the surcharge. The OCA appreciates the point of the proposal, but is concerned that this proposal may come with ratepayer risk and may not be able to be implemented on a class specific basis as the Commission's proposal seems to assume.

PJM's capacity rates are zonal in nature and not customer class specific. Any shift in capacity costs is not likely to occur at the customer class level which could lead to issues regarding allocation of costs and benefits that will not be easily resolved. Additionally, since the peak demand reductions are based on energy efficiency measures, it may not be possible to know which customer class did or did not perform.

The OCA is also concerned that to address the significant risk of capacity deficiency penalties, an EDC may wish to conservatively bid only a small portion of its peak demand reductions. While such a conservative strategy may be warranted given the potential for PJM capacity deficiency penalties, it may result in costs to prepare such bids that are not justified by the potential benefits.

Finally, the OCA questions the impact of potential capacity deficiency penalties on the costs of the program. In the OCA's view, capacity deficiency penalties would be a cost of the

program and would have to be handled within the 2% budget cap. This could reduce the available dollars for spending on energy efficiency measures.

The OCA strongly recommends that the Commission eliminate this requirement. While the OCA agrees that EDCs should consider bidding into the PJM forward capacity market if it works within the EDC's program structure and the risks can be properly managed, a requirement to make such a bid should not be included in Phase IV.

IV. CONCLUSION

The Office of Consumer Advocate appreciates the opportunity to provide these Comments on Phase IV. The OCA looks forward to working with the Commission, the EDCs and all stakeholders in developing a Phase IV at the appropriate time that recognizes the full impacts of the COVID-19 pandemic.

Respectfully Submitted,

/s/ Darryl A. Lawrence
Darryl A. Lawrence
Senior Assistant Consumer Advocate
PA Attorney I.D. # 93682
E-Mail: DLawrence@paoca.org

Counsel for:
Tanya J. McCloskey
Acting Consumer Advocate

Office of Consumer Advocate
555 Walnut Street
5th Floor, Forum Place
Harrisburg, PA 17101-1923
Phone: (717) 783-5048
Fax: (717) 783-7152
Dated: April 27, 2020