

COMMONWEALTH OF PENNSYLVANIA



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December 30, 2013

Rosemary Chiavetta, Secretary  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
400 North Street  
Harrisburg, PA 17101

Re: Energy Efficiency and Conservation Program  
(Amended Demand Response Study)  
Docket Nos. M-2012-2289411  
M-2008-2069887

Dear Secretary Chiavetta:

Attached for electronic filing please find the Office of Consumer Advocate's  
Comments in the above-captioned proceeding.

If you have any questions, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Christy M. Appleby".

Christy M. Appleby  
Assistant Consumer Advocate  
PA. Attorney ID# 85824

Attachment

cc: Megan Good, Bureau of Technical Utility Services  
Kriss Brown, Law Bureau  
178038

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Energy Efficiency and Conservation Program : Docket Nos. M-2012-2289411  
M-2008-2069887

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COMMENTS  
OF THE OFFICE OF CONSUMER ADVOCATE

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DATED: December 30, 2013

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## I. INTRODUCTION

On November 14, 2013, the Pennsylvania Public Utility Commission (Commission) issued its Tentative Order regarding demand response programs under Act 129 of 2008 (the Act or Act 129). 66 Pa. C.S. § 2806.1; Tentative Order at 1-2. The Commission also released for Comments the amended Act 129 Demand Response Study (Amended DR Study) prepared by the Statewide Evaluator. The Amended DR Study assessed the cost-effectiveness of the Phase I peak demand reduction programs operated by the Electric Distribution Companies (EDCs) and performed a Preliminary Wholesale Price Suppression analysis and a Prospective Total Resource Cost (TRC) analysis. The Commission requested Comments within thirty days of publication in the Pennsylvania Bulletin on the Amended DR Study, the proposed demand response program methodology for future phases of Act 129, and on an alternative peak reduction program to be studied for inclusion in a subsequent phase of the Energy Efficiency and Conservation (EE&C) program. Tentative Order at 2, 35. Reply Comments are due fifteen days thereafter. The Pennsylvania Bulletin published notice of the Tentative Order on Saturday, November 29, 2013. Consistent with the Tentative Order, the Office of Consumer Advocate (OCA) files these Comments.

The OCA appreciates the efforts of the SWE in evaluating Demand Response Programs in Pennsylvania. The Amended DR Study provides a reasonable basis to move forward with the design and implementation of Demand Response programs pursuant to Act 129, particularly for residential customers. While the OCA may not agree with every detail in the Amended DR Study, the Study provides valuable insights and recommendations for consideration. The OCA appreciates the opportunity to provide Comments on the Tentative Order. The OCA notes that it will not respond to each issue identified in the Tentative Order and the Amended DR Study. The

OCA will focus on several key issues and concerns it has identified with the Commission's Tentative Order and the Amended DR Study.<sup>1</sup> The OCA also specifically focuses its Comments on the Amended DR Study's recommendations regarding residential demand response programs.

In the OCA's view, the Amended DR Study supports the continuation of residential DR programs and the setting of new compliance targets. The SWE sets out reasonable parameters for the development of EDC-specific residential DR programs that can be cost-effective and beneficial to the residential class as a whole. The OCA submits that the details for the design of the residential programs should be sent to the stakeholder groups of each EDC so that cost-effective programs can be designed taking into account the recommendations of the SWE and the comments filed in response to this Tentative Order. Moreover, the OCA recommends that compliance targets be set expeditiously so that the programs can be designed and implemented by the Summer of 2016, as contemplated by Section 2806.1(d)(2). Finally, as to the residential DR programs, the OCA recommends that the EDCs and the Commission make a multi-year commitment to these programs so that they can be bid into the PJM Base Residual Auction (BRA) as recommended by the SWE.

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<sup>1</sup> The OCA was assisted in its analysis of the Tentative Order and the Amended DR Study by Geoffrey Crandall and Jerry Mendl of MSB Energy Associates. Mr. Crandall is a principal and Vice President of MSB Energy Associates of Middleton, WI. Mr. Crandall specializes in residential and low-income issues and the impact of energy efficiency and utility restructuring on customers. He has over 35 years of experience in utility regulatory issues, including energy efficiency, conservation and load management resources program design and implementation, resource planning, restructuring, mergers, fuel, purchase power, gas cost recovery, planning analysis and related issues. Mr. Crandall has provided expert testimony before more than a dozen public utility regulatory bodies throughout the United States, including this Commission, and before the United States Congress on several occasions. Mr. Mendl is a principal and President of MSB Energy Associates, Inc., which he co-founded in 1988. Mr. Mendl has over 39 years of experience in utility regulatory issues, including fuel and purchase power assessments, resource planning, environmental impact, customer impact, mergers, restructuring and other issues. He has analyzed the long range plans and planning methods used by gas and electric utilities and identified and evaluated alternative resources, including improved end-use energy efficiency and demand response resources, to reliably and economically meet utility service obligations, on behalf of public-sector clients in 25 states, the District of Columbia and Ontario.

## II. COMMENTS

### A. Overview.

The Amended DR Study includes a description of demand response programs; information regarding DR programs in other states; an analysis of DR market pricing; a description of the attribution of Act 129 Phase I DR programs; a review of the cost-effectiveness of Act 129 Phase I DR programs; a preliminary Wholesale Price Suppression Analysis; and a Prospective TRC Analysis. The Commission summarized the SWE's findings as follows:

The SWE states that the majority of Act 129 DR programs, as offered in 2012, were not cost-effective. The SWE also finds that the attainment of an effective demand response goal of 2% to 2.5% in a single year is not only more aggressive than other jurisdictions, but also attributed to the low TRC ratios for the 2012 DR programs. The SWE asserts that the potential for fines for non-compliance led to the EDCs paying incentives much larger than the average LMP during the top 100 hours, leading to lower TRC ratios.

Tentative Order at 8.<sup>2</sup> Importantly, though, the SWE concluded that many of the design and compliance issues that impacted the cost-effectiveness of the 2012 DR Programs could be remedied. The SWE presented recommendations for improvement and possible alternative designs for cost-effective DR. The SWE also preliminarily found that the price suppression effects could be significant, thus further contributing to the cost effectiveness of alternatively designed programs. Amended DR Study at 54-57.

The Commission summarized the SWE recommendations as follows:

- That the top 100 hours methodology be discontinued for any future phases of Act 129 as it leads to predictive difficulties and low TRC ratios.

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<sup>2</sup> The OCA would note that it continues to disagree with the use of a single-year benefit/cost model for analyzing the cost-effectiveness of residential DLC programs as was done by the SWE in reaching these conclusions. See, Amended DR Study at 40. As the SWE recognizes, programmatic investments in residential DLC programs are very front-loaded due to the need to install infrastructure. The typical useful life of the equipment is 8 to 10 years, but the primary analysis considered only one year of operation. While the SWE did attempt to analyze the 2012 DR programs over a longer horizon, the top 100 hour design continued to impact the cost-effectiveness of the program. The OCA submits that a properly designed DR program that targets the most beneficial hours for reduction should be expected to be cost-effective when analyzed over the appropriate time horizon.

- That the Commission adopt the California methodology of including 75% of the incentive payment as a proxy for participant costs, as opposed to the 100% proxy currently being utilized.
- That, if residential DLC programs are continued, the EDCs bid the reduction into the PJM forward capacity auctions.
- That, due to differences in LMPs and capacity prices across the state, any future DR targets be EDC-specific.
- That the decision to promulgate any future DR targets be made dependent on regional capacity prices.
- That the Commission consider avoided generation costs when determining any future DR targets.
- That the Commission consider the incremental value to the existing PJM DR market when proposing any future commercial and industrial targets.
- That the Commission consider those Phase I costs for DLC programs as sunk before determining the cost-effectiveness of any future DLC programs.
- That any future DR targets be based on the average load reduction observed over a subset of hours during which DR is likely to be a cost-effective alternative to generation.
- That any future commercial and industrial LC programs omit participation by those customers enrolled in the PJM ELRP.

Tentative Order at 8-9. The SWE also provides two proposed mechanisms for determining in which hours demand response would be cost-effective: (1) to require an EDC to call demand response events during any hour in which the real-time LMP for that zone is above a certain dollar-per-MWh threshold and (2) to require the EDC to call DR events when the Day-Ahead forecast is above a certain percentage threshold of the summer peak demand threshold.

Tentative Order at 9-10.

The OCA continues to support the inclusion of residential demand response programs in future phases of Act 129 and finds that the SWE's Study supports the inclusion of residential DR in the Act 129 program. Demand response programs have the potential to benefit residential

customers in many ways, especially by reducing the amount of peak load that must be served (thus avoiding costly increments of capacity resources), impacting high peak hour prices, and reducing customer bills. The OCA submits that the residential DLC program should continue. The SWE study provides a sound starting point to design cost-effective programs.

B. The OCA Agrees With The SWE Conclusion That The Top 100 Hours Compliance Approach Should Be Replaced With Alternatives That Will Result In Cost-Effective Programs.

In Act 129's Phase I, EDCs were required under Section 2806.1(d) of the Public Utility Code to reduce electric demand in the top 100 hours as follows:

(1) By May 31, 2013, the weather-normalized demand of the retail customers of each electric distribution company shall be reduced by a minimum of 4.5% of annual system peak demand in the 100 hours of highest demand. The reduction shall be measured against the electric distribution company peak demand for June 1, 2007 through May 31, 2008.

(2) By November 30, 2013, the commission shall compare the total costs of energy efficiency and conservation plans implemented under this section to the total savings in energy and capacity costs to retail customers in this Commonwealth or other costs determined by the commission. If the commission determines that the benefits of the plans exceed the costs, the commission shall set additional incremental requirements for reduction in peak demand for the 100 hours of greatest demand or an alternative reduction approved by the commission. Reductions in demand shall be measured from the electric distribution company's peak demand for the period from June 1, 2011, through May 31, 2013. The reductions in consumption required by the commission shall be accomplished no later than May 31, 2017.

66 Pa. C.S. § 2806.1(d) (emphasis added). Act 129 provides that the Commission should determine whether the plans were cost-effective, and if the Commission determined that the benefits of plans exceed the costs, the Commission is to set additional incremental requirements for reduction in peak demand for the 100 hours of greatest demand or implement an alternative reduction methodology. In the Commission's Implementation Order for Phase II of the program, the Commission determined not to require a peak demand reduction program in Phase II but

decided to further analyze the issue. Implementation Order at 86 (August 3, 2012). The Commission determined that it would wait for the results of the SWE's Demand Response Study before proposing any further peak demand reduction targets. Implementation Order at 86-87.

In the Amended DR Study, the SWE analyzes whether or not the top 100 hours are a cost-effective method of demand reductions. The SWE defined cost-effective as whether "the costs of acquiring DR resources are greater than the energy and capacity benefits they produce given market conditions." Amended DR Study at 29. In 2012, each of the seven EDCs used a load curtailment demand response program in an effort to achieve a required 4.5% peak demand reduction requirement. Id. The utility-sponsored programs were implemented on top of PJM's existing demand response program framework. Id. After analyzing the customer participation and costs and benefits of the program, the SWE determined that utilizing the top 100 hours was not a cost-effective method of demand reductions. The SWE recommended that:

Because the top 100 hours methodology leads to DR resources being called regardless of whether or not they would be cost-effective during those hours, the SWE recommends that the top 100 hours methodology be discontinued. The SWE recommends that any future DR program involve resources being dispatched when they are needed for reliability or when they are likely to be cost-effective.

Tentative Order at 16 (footnote omitted); Amended DR Study at 54.

The OCA supports the SWE's and the Commission's recommendation that the top 100 hours methodology be discontinued. In Phase I, the calculation of the peak demand reduction benefits were determined for each EDC by multiplying the reduction during the top 100 hours of system demand by an avoided cost of capacity. Tentative Order at 14. The SWE states that the 100 hours methodology assumes that the demand reductions in the 100 hours for each EDC are valued equally. The SWE found that there was significant variation in the value of those reductions in those 100 hours. Amended DR Study at 25-27. For example, in the summer of

2012, the SWE found that Locational Marginal Price (LMP) for the EDCs were elevated only during 12 to 14 hours of the summer period. Amended DR Study at 27; Tentative Order at 15. Further, the SWE determined that the grid was not significantly constrained during at least 50 of the top 100 hours of 2012 which meant that there were no cost beneficial savings. Id. Similarly, in 2008 and 2011, the SWE found that there were only 20 to 30 hours when demand response would have relieved grid constraint, been economically cost-effective and would have had a positive effect on electric reliability. Amended DR Study at 28.

The SWE recommended discontinuation of the top 100 hours methodology. The OCA agrees that the top 100 hours methodology is not sufficiently flexible, leads to a less than optimal program design, and leads to a less than optimal use of the residential DLC resource. The OCA agrees that demand response should only be dispatched when needed for reliability or when it is cost-effective. Based on the SWE's analysis, the OCA supports the Commission's determination that the top 100 hours methodology be discontinued.

C. The OCA Agrees With The SWE's Recommendation To Recognize And Establish EDC-Specific Compliance Targets And Programs And The Use Of The Average Load Reduction As A Compliance Metric.

The SWE also examined geographic variances in market pricing and the variances in market pricing from year to year. Due to geographic variances in capacity and energy market pricing, the SWE recommended that any future demand response targets be EDC-specific instead of using a statewide target as was done in Phase I. Tentative Order at 14; Amended DR Study at 55. With respect to variances in market pricing from year to year, the SWE also recommended that any future demand response targets should "utilize a compliance metric that is the average load reduction observed over a subset of hours during which DR would likely be a cost-effective alternative to generation and that the performance period be flexible and determined by that

year's load or economic conditions." Tentative Order at 18. The OCA would agree with these recommendations as the basic underlying premises for establishing compliance targets and designing future demand response programs.

The OCA submits that the Amended DR Study clearly shows that there are significant geographic and market price variations that make this recommendation appropriate. This would be similar to the approach taken with the Energy Efficiency and Conservation (EE&C) Programs in that each EDC's energy efficiency goal was designed to address the market potential within the EDC's specific service territory. As such, the OCA recommends that EDC-specific compliance targets be set expeditiously and that a compliance metric that is the average load reduction observed over a subset of hours be utilized.

D. The SWE Study's Proposed Methodologies For DR Program Design Are A Sound Starting Point, But Could Be Supplemented With Other Approaches.

The Amended DR Study supports continuing residential DR under a different, more cost-effective design. In its Amended DR Study, the SWE provides two proposed mechanisms for the DR program design: (1) to require an EDC to call demand response events during any hour in which the real-time LMP for that zone is above a certain dollar-per-MWh threshold or (2) to require the EDC to call DR events when the Day-Ahead forecast is above a certain percentage threshold of the summer peak demand threshold. Amended DR Study at 57-58; Tentative Order at 9-10. The SWE recommends that Residential DLC programs and Load Control programs should use one of the two identified methodologies. The OCA agrees with the SWE's analysis and the two methodologies. The OCA submits, however, an additional design that combines these two approaches should also be considered. By combining these two designs, the weaknesses of each individual approach identified by the SWE may be able to be overcome, bringing greater benefit to customers.

The first methodology identified by the SWE provides that the EDC would call demand response events during any hour in which the real-time LMP for that zone is above a certain dollar-per-MWh threshold. Tentative Order at 9. The SWE states that “this approach would address differences in peak energy prices between EDCs, as well as allow EDCs to both respond to generation shortfalls and high demand.” The SWE states that a potential weakness of this approach is that EDCs will have to forecast whether or not the LMPs will reach the threshold and call DR events accordingly. Id.

The second methodology requires the EDCs to call demand response events when the Day-Ahead forecast is above a certain percentage threshold of the summer demand forecast. Tentative Order at 10. The SWE states that this approach would potentially require different numbers of compliance hours between EDCs. Additionally, the total number of hours would be weather-dependent. The SWE provides that the advantage to this approach is that “EDCs and customers would have advanced notice of DR events and that it eliminates the potential for non-cost-effective DR resources being called.” The potential negative to this approach is that DR events would only occur when demand is close to exceeding the amount of power generation available. Tentative Order at 10.

The OCA agrees with consideration of these two methodologies in program design by the EDCs and their stakeholder groups. The OCA also recommends that consideration be given to a program design that uses both triggers. In this design, DR resources would be dispatched based on Day-Ahead load forecasts to reflect their value at displacing planning capacity and also dispatched based on Real Time or Day-Ahead LMPs to reflect their value at reducing costs during high energy cost periods. The high energy cost periods could be caused by high demand or a shortfall of available capacity to load whenever that occurs. The threshold levels for LMPs

and load forecasts would have to be set such that the number of hours DR would be triggered would be reasonable. As the market and load conditions in each zone will impact program design, the OCA recommends that the details be developed by the EDCs with input from the stakeholders.

The OCA submits that these methodologies together would work to capture a greater number of potential hours. The first methodology would capture any hour in which Real-Time (or Day-Ahead) LMP for that zone is above a certain dollar-per-MWh threshold, including the off-peak season, off-peak hours. The second methodology is specifically designed to capture peak demand hours in the summer season. For the most part, these two methodologies would work in parallel in order to capture the greatest number of potential hours that would be cost-effective.

The Amended DR Study supports residential DR under these modified designs. The OCA submits that the establishment of targets, design, and program implementation should be completed expeditiously.

E. The Amendments To The Residential DLC Programs Proposed By The Commission Are Reasonable.

1. The OCA Agrees That The Measure Life Should be Changed To The Actual Useful Life of The Equipment.

The Tentative Order states that the useful life of the measure equipment should be changed to the actual useful life of such equipment, which ranges from eight to ten years. Tentative Order at 29; Amended DR Study at 40. The Commission states that increasing the measure life would allow the Commission the flexibility to prescribe a DLC program over a number of years, which could increase the cost-effectiveness of the programs. Tentative Order at 29; Amended DR Study at 41-42.

The OCA agrees that the useful life of the measure equipment should be based upon the actual useful life of the equipment, instead of the one year used for evaluating the 2012 programs. The measure life should recognize the multi-year life and reflect the cumulative benefits over the actual life of the measure. In addition, increasing the measure life allows programs to be designed for multiple years, thus increasing program certainty and facilitating the bidding of programs into the PJM Base Residual Auction.

2. The OCA Agrees That The Full Reduction Scenario Should Be Implemented.

The SWE recommends that the full load reduction scenario be implemented. Tentative Order at 29. Under this scenario, the demand savings would be determined by multiplying the number of DLC devices by the average kW savings per device. The SWE explains that this would be an appropriate savings calculation because the value of the DR program is for the EDC to have load control when it is most needed. Amended DR Study at 40; Tentative Order at 29. The OCA supports the use of a full load reduction scenario.

3. Phase I Costs Should Be Treated As Sunk Costs.

The Tentative Order includes the SWE recommendation that the Commission consider Phase I costs for DLC programs as sunk costs when determining the cost-effectiveness of any continued operation of the DLC programs. Tentative Order at 30. As the Tentative Order explained, all seven EDCs implemented a Residential Direct Load Control or Load Control program in Phase I. Some EDCs, such as PECO, purchased and own the DLC devices installed in their service territory; while others, such as PPL, leased the devices installed in the service territory. Tentative Order at 30-31. The SWE recommends that the Commission view the costs of purchasing and installing the existing devices as a sunk cost when analyzing future DR programs. The OCA agrees that these costs should be considered as sunk costs for EDCs that

already own and have installed the devices in these circumstances. The devices are ready and waiting for use and the costs have already been factored into the Commission's consideration here.<sup>3</sup> The OCA submits, however, that new costs should be analyzed over the life of the devices to perform an appropriate cost effectiveness review.

4. The OCA Agrees That The Incentives Should Be Designed To Achieve The Necessary Participation.

The SWE states that incentives paid by some of the EDCs in Phase I were higher than those seen in other jurisdictions. Amended DR Study at 44-45; Tentative Order at 30. The SWE recommends that the incentives be reduced for future DLC programs in order to make the DLC more cost-effective. Id. Further, the SWE recommends that the DLC programs would be more cost-effective if administrative and incentive costs per kW were kept below the avoided generation and avoided T&D benefits per kW. Id.

The OCA agrees that incentives may have been higher than necessary in Phase I. This is understandable, though, given the difficulty in complying with the top 100 hours requirement. Incentives should be narrowly targeted to achieve the proper level of participation in cost-effective programs. The OCA agrees that properly structured incentives will aid in returning a net benefit from these programs.

5. The OCA Agrees The EDCs Should Bid The Reductions From Residential DLC Programs Into The PJM Forward Capacity Auctions.

The SWE recommends that the EDCs bid the demand reduction from Residential DLC programs into the PJM forward capacity auctions.<sup>4</sup> The SWE states that it "feels that bidding

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<sup>3</sup> As noted earlier, the OCA does not support a single year cost/benefit analysis of DLC programs when the devices have a multi-year life. In this instance, however, the front-loaded nature of these costs has been considered by the Commission through the SWE's analysis. As such, treating these costs as sunk is reasonable in this context.

<sup>4</sup> The OCA notes that PJM is currently evaluating the role of demand response in its forward capacity auctions. Any changes in the PJM RPM auction process will need to be factored into the program design.

EDC direct load control programs into the PJM capacity market is necessary to realize the full program benefits, however ultimately this is a business decision that must be made by each EDC individually.” Amended DR Study at 18. The OCA had recommended in Phase I demand response programs that the resources be bid into the PJM forward capacity auctions, and the OCA would, therefore, support the SWE’s recommendation to incorporate this element into the residential demand response programs in the next phase.

The OCA would note, however, that as the BRA auctions are completed three years in advance, it is important for the Commission to support a long-term commitment to residential Demand Response programs in order for the DR resources to bid into the PJM BRAs.<sup>5</sup> As customers pay for the costs of the Act 129 programs, the OCA recommends that any benefit associated with bidding the reductions into the PJM BRAs should be flowed through to customers through the utility’s Energy Efficiency and Conservation (EE&C) Rider.

F. Demand Response Potential And Wholesale Price Suppression Studies Should Be Completed Expediently.

In its Tentative Order, the Commission recommends that the SWE perform two studies: (1) a Demand Response Potential Study and (2) a Wholesale Price Suppression Study. Tentative Order at 33. The Commission states that these two studies are necessary because “the Commission’s proposed methodology has not yet been proven to be cost-effective and because the SWE’s wholesale price suppression information is in its preliminary stages.” Tentative Order at 33. The OCA supports the completion of these two studies expediently. It is important to note that the statute contemplates new programs in the Summer of 2016. Section 2806.1(d)(2). To meet this date, these studies will need to be completed expediently to allow time for establishing compliance metrics and designing programs.

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<sup>5</sup> Some EDCs have bid the DR program in the incremental auctions. Given current market conditions, the revenues from the incremental auction have been very limited.

1. Demand Response Potential Study.

The Commission stated that the Demand Response Potential Study will provide for “more definitive cost-effectiveness information regarding the proposed DR methodology” and information regarding potential peak demand reduction targets. Tentative Order at 34. The OCA agrees that understanding the Demand Response potential would provide a significant benefit regarding the determination of potential demand reduction targets. The SWE performed a similar study regarding the potential for energy efficiency resources and the Energy Efficiency study provided assistance with determining where in the Commonwealth the greatest potential for energy efficiency existed. Further, the Energy Efficiency Study allowed the Commission to establish individualized goals for setting targets such that the goals reflected the geographic needs of the EDC’s service territory. Given the SWE’s analysis regarding the geographic and market pricing variations, the OCA submits that a similar Demand Response Potential Study would make sense.

As such, the OCA agrees with the Tentative Order and SWE recommendation to complete a Demand Response Potential Study. The OCA would suggest that this study be completed as expeditiously as possible so that programs can be designed and implemented by the Summer of 2016 as contemplated by Section 2806.1(d)(2).

2. Wholesale Price Suppression Study.

Regarding the Wholesale Price Suppression Study, the SWE recognized that demand response resources may also provide at least short-term benefits in the suppression of wholesale energy prices. As the Tentative Order stated, “[t]his suppression would create a benefit for the load being curtailed in the avoidance of high energy prices, as well as a benefit for non-curtailed loads through the payment of reduced LMPs.” Tentative Order at 20; Amended DR Study at 51.

The SWE stated that it did not have the data necessary, including specific information on the cleared and non-cleared demand resource offerings, to fully estimate the impact of wholesale price suppression. The SWE recommended that this issue be further examined and that the SWE conduct more research to provide an in-depth supply curve modeling to determine the benefits to wholesale prices from Act 129 programs and demand response resources. Tentative Order at 20; Amended DR Study at 52-53. The OCA would agree that this more detailed study could be helpful. The SWE's initial wholesale price analysis using just a few data points showed a potential \$635 million price suppression impact, while noting certain potential caveats. The OCA submits that such a significant potential wholesale price suppression impact underscores the need for additional and more thorough analysis. As noted in regard to the DR Potential Study, this analysis should be done expeditiously so that the DR programs can be designed and implemented for the Summer of 2016 as contemplated by the statute.

The OCA also submits that the following issues be considered in any such study:

1. The current study is based on DR as a capacity avoidance mechanism. DR, if called upon, also has a role in suppressing energy prices (LMPs) during those hours it is active. The impact on the suppression of energy prices should also be assessed, particularly if the study is going to be used to help allocate budgets between energy efficiency and DR programs. The methodology used to assess the energy price suppression benefits of DR should also be used to assess the energy price suppression benefits of energy efficiency. The OCA recommends that the Wholesale Price Suppression Study should develop and assess the energy price suppression benefits of DR and energy efficiency.

2. The current Wholesale Price Suppression Study analyzes the wholesale capacity price suppression effects for 4 Locational Delivery Areas (LDA) and then notes that only about

17% of the price suppression benefits of the Pennsylvania programs flow back to Pennsylvania. Amended DR Study at 62. The study discounts the benefits of the Pennsylvania DR programs based on the fractional sales of the LDAs to the Pennsylvania utilities, even though the Pennsylvania ratepayers pay the entire cost of the DR programs. The OCA is concerned about unreasonable cross subsidization, but notes that Pennsylvania also benefits from the DR programs instituted in other states comprising the LDAs analyzed by the SWE. The OCA submits that DR programs exist across the PJM region -- both in other states and in Pennsylvania. For example, the Allegheny Electric Cooperative has operated a successful demand response program in Pennsylvania for decades. Similarly, Maryland has more recently implemented the EmPower Maryland Energy Efficiency Act which provides a requirement for DR programs. The EmPower Maryland Energy Efficiency Act, Public Utilities Art. § 7-211, Ann. Code of Maryland. New Jersey also offers demand response programs. Similarly, the PJM Demand Response programs have participants from all of the PJM states. Following the SWE Study's logic that Pennsylvania receives only 17% of the price suppression from Pennsylvania DR programs, it must also be recognized that Pennsylvania receives a percentage of the price suppression benefit from these other state and PJM programs. If this remains a concern, the Wholesale Price Suppression Study could assess the DR investment in neighboring states and determine whether some states invest disproportionately more or less than their neighbors in the LDAs. The OCA also suggests that if the levels of DR commitment are proportionate among the states, then the free price suppression benefits of other states' programs to Pennsylvania would offset the benefit from Pennsylvania programs that the SWE finds will flow to other states.

Therefore, the OCA recommends that the SWE conduct a further Wholesale Price Suppression Study and address the issues identified above.

### III. CONCLUSION

The OCA appreciates the opportunity to provide its Comments on these important issues. The OCA strongly supports the continuation of the Residential Demand Response and Load Control programs in Pennsylvania. The OCA submits that such programs can be cost-effective when properly implemented and designed. The OCA also supports the proposals to complete a Demand Response Potential Study and Wholesale Price Suppression Study as expeditiously as possible.

Respectfully Submitted,



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