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November 1, 2019

Rosemary Chiavetta, Secretary
PA Public Utility Commission
Commonwealth Keystone Bldg.
400 North Street
Harrisburg, PA 17120

Re: 2021 Total Resource Cost (TRC) Test
Docket No. M-2019-3006868

Dear Secretary Chiavetta:

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

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

Respectfully submitted,

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Attachment
cc: David Edinger, Bureau of Technical Utility Services
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CERTIFICATE OF SERVICE

2021 Total Resource Cost (TRC) Test : Docket No. M-2019-3006868

I hereby certify that I have this day served a true copy of the following document, the Office of Consumer Advocate's Comments 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 1st day of November 2019.

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BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

2021 Total Resource Cost Test : M-2019-3006868

COMMENTS
OF THE
OFFICE OF CONSUMER ADVOCATE

I. INTRODUCTION

On September 19, 2019, the Pennsylvania Public Utility Commission (Commission) issued its Tentative Total Resource Cost (TRC) Order "for use in planning for and during a potential Phase IV of Act 129 that, if approved, would begin June 1, 2021." Tentative Order at 1. As the Commission's Order explains, Act 129 defines a TRC test as:

> a standard test that if met if, over the effective life of each plan not to exceed 15 years, the net present value (NPV) of the avoided monetary cost of supplying electricity is greater than the NPV of the monetary cost of energy efficiency conservation measures.

Tentative Order at 4, citing 66 Pa. C.S. § 2806.1(m); see also, Tentative Order at 5; 66 Pa. C.S. §§ 2806.1(c)(3), 2806.1(d)(2). Pennsylvania conducts the benefit/cost [B/C] analysis using the TRC Test. The TRC Test provides an important measuring tool to determine the overall cost-effectiveness of an EDC's EE&C Plan. The Commission states that the TRC Test "considers the combined effects of an EDC's EE&C plan on both the EDC and any participating customers" and also includes avoided costs. Tentative Order at 5.

The Tentative Order states that the Commission's proposed 2021 TRC Test "builds on the four previous Pennsylvania TRC Test Orders and industry documents, such as the 2002 *California Standard Practice Manual- Economic Analysis of Demand-Side Programs and Project* (*California*

Manual), for the B/C [Benefit/Cost] analysis of EE&C plans for the potential Phase IV." Tentative Order at 3. The 2021 Technical Resource Manual (TRM) will also be used to measure and verify applicable energy efficiency and demand side management measures used by the electric distribution companies to meet the Act 129 consumption and peak demand targets. Tentative Order at 4.[1] The Commission states that the final Order for the 2021 TRC Test Order will provide the constraints that the Phase III Statewide Evaluator (SWE) will need in order to finalize the Phase IV market potential study.

The Tentative Order was published in the *Pennsylvania Bulletin* on Saturday, October 12, 2019. The Commission has requested that interested parties provide comments regarding the proposed changes identified in the Tentative Order. Comments from interested parties are due on November 1, 2019, and Reply Comments are due on November 12, 2019.

The OCA was assisted in its review of the Tentative Order by Stacy L. Sherwood.[2] The OCA supports many aspects of the Tentative Order. The purpose of the TRC Test is to ensure that the overall Phase IV Electric Distribution Company (EDC) Energy Efficiency and Conservation (EE&C) and Demand Response (DR) Plans are cost-effective, and the proposed TRC Test Order achieves that objective in many respects. Many of the changes are designed to create consistency

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1 A final Order regarding the update to the TRM was issued on August 9, 2019 at Docket No. M-2019-3006867.

2 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 a Regulatory Economist 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.

and uniformity of treatment across the EDC Plans. The OCA supports promoting consistency across the EDC programs.[3]

The TRC Test Order also proposes to ensure that all customers are able to receive a benefit from the EE&C programs. For example, the Commission proposes to maintain the low-income programs in the EE&C Plan and would not require these programs to have a TRC of greater than 1.0. Tentative Order at 12. The OCA supports maintaining these programs to address the needs of low-income customers and to provide a specific benefit for low-income customers in the EE&C Plans.

The OCA provides Comments regarding the following areas: (1) avoided cost of electric energy; (2) escalation rate; (3) monetizing water impacts; (4) fuel switching- ENERGY STAR requirement; and (5) calculation of TRC benefits, including the magnitude of the peak demand reduction and whether DR programs should be nominated to PJM as a peak shaving adjustment.

II. COMMENTS

A. Avoided Cost of Supplying Electricity

The Commission proposes to calculate the avoided cost of supplying electricity in the same manner as in prior phases. See, Tentative Order at 13-18. The electric distribution companies will continue to develop a single forecast for use in the Phase IV EE&C Plans in the annual reports. Tentative Order at 14. The Companies will also continue to use a twenty-year period, separated into three segments (Years One through Four; Years Five through Ten; and Years Eleven Through Twenty). Tentative Order at 14-18. The Commission would increase from four to six distinct periods per annum (for the seasons and on-peak and off-peak time), as defined in the Technical

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[3] Moreover, the OCA notes that the Commission's Tentative Order improves upon the prior TRC Test Orders by combining all of the instructions into a comprehensive document, rather than referencing prior Orders. See, Tentative Order at 3-4. The OCA supports the Commission's efforts to consolidate the work of the prior TRC Orders into a comprehensive document.

Resource Manual (TRM). Tentative Order at 14. The Commission proposes the use of a standard tool that will be provided on the Commission's website and will contain all of the inputs that are discussed in the TRC Order. Tentative Order at 13. The Commission states that the "intention is that more detailed instructions will improve consistency across EDCs and lead to better alignment with market conditions." Id.

The OCA agrees that the use of this tool will create consistency and standardization amongst the utilities. The spreadsheet will assist in eliminating any confusion from third-parties by providing a level of transparency and due to formatting, allow comparisons between utilities. The OCA submits that these completed and submitted spreadsheets should also be made available on the Commission Act 129 webpage for easy access as well. Inclusion of the completed spreadsheets would allow for greater information about the savings achieved by the utilities and comparison amongst the utilities under the Plan.

B. Escalation Rate

The Commission proposes to change its escalation rate. Tentative Order at 19-20. In the Tentative Order, the Commission proposes:

> That any avoided electricity costs that require escalation from a given year shall use the Bureau of Labor Statistics' (BLS) Electric Power Generation Transmission Distribution (GTD) sector price index (BLS factor: NAICS 22110) a proxy rate. The escalation statistic shall be derived from the compound average growth rate (CAGR) of the average annual values of the prior four years with data for all twelve months.
>
> The escalation rate deals with the rate of increase in costs in real dollars. The escalation rate is not to be confused with the rate of inflation. The escalation rate plus the inflation rate captures the increase in cost projections in nominal dollars.

Tentative Order at 19-20 (footnote omitted).

The OCA agrees with the methodology proposed for the escalation rate. The OCA submits, however, that the Order should be clarified that the BLS GTD factor cannot use preliminary data.

The data should be revised during the first months of its posting. The OCA also submits that the language should be clarified so that the average annual values used are based upon the four years prior to the EE&C filing deadline. For example, if the filing is due in 2020, the filing should include data from the years 2015/2016-2019 (depending upon the availability of final data).

C. Other TRC Benefits: Monetizing Water Impacts

The Tentative Order proposes to monetize the water impacts in the TRC Test. In the Tentative Order, the Commission proposes that:

> Resources be monetized using a marginal cost to reflect what is reduced (or increased) by an EE&C measure. Marginal costs are the appropriate perspective for the TRC Test because other fixed costs embedded in retail rates will still be recovered. We propose that EDCs use $0.01 per gallon ($2021) as the marginal cost of water used for TRC testing. Under the proposal, this rate must be escalated yearly with the same escalation rate assumed throughout the TRC model. The marginal cost of water includes the energy required to pump and treat the water. In order to avoid double-counting, the Commission proposes that saved pumping energy from water measures not be counted toward EDC compliance targets.
>
> The 2021 TRM does not include loss rates for water. However, water systems also experience losses in their distribution networks. The Commission proposes a loss factor of 24.5% (or 1.32 multiplier) for water losses based on a weighted average reported loss rate of 28 Class A water companies in Pennsylvania.

Tentative Order at 29.

The OCA does not agree with the Commission's assumptions included in its marginal cost calculation and the water loss rate. The assumptions are not documented or fully explained. This raises significant questions as to the value of monetizing the water costs. The proposal includes an incorrect assumption that all electric customers are served by Class A water companies regulated by the Public Utility Commission. In fact, many Pennsylvania customers receive water service from other sources such as a municipal authority or well. The OCA submits that there is no particular coincidence to Class A water utilities and the delivery of energy efficiency. For, example, PECO Energy Company serves hundreds of thousands of customers in Philadelphia. Those customers are all served by the City of Philadelphia's Philadelphia Water Department.

The Commission has proposed to use $0.01 per gallon as the marginal cost of water and that the amount may be escalated yearly. The Commission's Tentative Order does not provide any support for the use of a marginal cost of water of $0.01 per gallon or the need for an escalation rate. The OCA submits that no basis has been shown to include an annual escalation rate for water or that the costs rise with inflation each year. An escalation rate should only be imposed when it is demonstrated that costs will, in fact, increase on a year to year basis.

Moreover, the proposed water loss rate is excessive and unnecessary. There has been no demonstrated need to incorporate a water loss rate in the TRC. Moreover, if the average water rates are used, there is no need to include the water loss rate assumption because it is already embedded into the water and wastewater utility rates.

The Commission proposes a loss factor of 24.5% for water losses. The 24.5% is derived from a weighted average for water losses reported by 28 Class A water companies in Pennsylvania. The proposed level, however, is directly contrary to the Commission's regulations. The Commission's statement of policy regarding water conservation states that "levels of unaccounted-for water should be kept within reasonable amounts. Levels above 20% have been considered by the Commission to be excessive." 52 Pa. Code § 65.20(4). Inclusion of a 24.5% in the calculations implicitly accepts levels above 20% as appropriate. As discussed above, it also assumes a direct correlation between the electric distribution company and the Class A Water utilities. It does not address that many customers in Pennsylvania receive their water from a municipal entity or a private well. The OCA is also not aware of any other utility in the country that incorporates a water loss rate.

D. Fuel Switching- ENERGY STAR Requirement

As the Tentative Order states, in the first three Phases of the EE&C Plans, EDCs have been permitted to support fuel switching measures "that will convert equipment from electricity to fossil fuel, but the fossil fuel equipment must meet or exceed the current United States Environmental Protection Agency (EPA) minimum ENERGY START performance standard." Tentative Order at 42. The Commission does not propose to change this standard in Phase IV. The 2021 TRM includes fuel switching measures that reflect the ENERGY STAR minimum performance standard. Tentative Order at 42. The Commission does propose a change from the 2016 TRC Test Order regarding the treatment for a fuel switching measure that does not have an ENERGY STAR performance standard. Tentative Order at 42. In a situation where there is not an ENERGY STAR performance standard, the Commission proposes that the EE&C Plan should state a proposed minimum standard and provide the justification for the proposed threshold. Tentative Order at 42.

The OCA agrees that the proposed change is appropriate and could encourage the inclusion of measures that otherwise would have been excluded from the Plan. The OCA, however, recommends that it may be beneficial to develop a template for evaluating a proposed minimum standard to ensure that all relevant data has been provided and that the level of detail provided is consistent across the EDCs' proposals.

E. Calculation of TRC Benefits: Whether DR Programs Should Be nominated to PJM as Peak Shaving Adjustments

The Commission proposes to require EDCs to nominate Demand Response (DR) in Phase IV to PJM as Peak Shaving adjustments. The Commission's Tentative Order states:

> The Commission's position is that Phase IV DR programs, if any, should be nominated to PJM as Peak Shaving Adjustments. This position is a departure from the Phase III DR design which not formally nominate resources to PJM, but instead

> relied on reductions to have a downward influence on PJM's zonal peak load forecasts. We recognize that Price Responsive Demand (PRD) is another potential avenue for Act 129 DR programs to be recognized at PJM. However, based upon input from the Phase III SWE, we propose the Peak Shaving Adjustment mechanism may be the most appropriate path.

Tentative Order at 46. No Pennsylvania EDC, however, has nominated peak shaving in preparation for the 2022/2023 BRA. Tentative Order at 46. In the most recent PJM BRA auction, delivery year 2021/2023, only three locational deliverability areas (BGE, PEPCO and EMACC) nominated peak shaving under PRD.[4] The Tentative Order states that "the Phase III SWE has provided PJM with hypothetical Pennsylvania data, and PJM is running an analysis using the Pennsylvania data but extrapolating from the BGE results." Tentative Order at 46.

The OCA submits that there is not sufficient data to warrant the proposed changes by the Commission at this time and that it is premature to make a determination regarding whether an EDC should be required to nominate its DR as Peak Shaving Adjustments. Experience with the Peak Shaving Adjustments has been limited and may continue to evolve. For example, PJM recently filed with the Federal Energy Regulatory Commission to change the procedural rules to require Price Responsive Demand (PRD) to be year round, and on June 27, 2019, the Federal Energy Commission denied the proposed rule changes. PJM Interconnection, LLC, Docket Nos. ER19-1012-000,ER19-1012-001, Order Rejecting Tariff Revisions (June 27, 2019). At this time, it would be premature to require EDCs to participate in the Peak Shaving market and to utilize the proposed 60% of the avoided cost of generation capacity. The OCA submits that the Commission should allow for comments once the results of the Pennsylvania PJM analysis have been completed to determine whether EDCs should be required to participate in the Peak Shaving market. After

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4 "PJM 2021/2022 RPM Base Residual Auction Results," PJM, https://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/2021-2022/2021-2022-base-residual-auction-report.ashx.

the experience has been evaluated, a determination should be made regarding whether inclusion of DR in the Peak Shaving market is appropriate.

F. Calculation of TRC Benefits: Magnitude of Peak Demand Reduction

The Commission also proposes that the EDCs should use 60% of the avoided cost of generation capacity for a program year to monetize the Demand Response impacts included in the Peak Shaving Adjustment. Tentative Order at 48. The proposal is based upon a preliminary analysis of the BGE data. Tentative Order at 48. The Commission states that it proposes these changes because the individual transmission areas on the distribution system may not peak at the same time as PJM, DR can be "uneven or difficult to forecast," and Act 129 planning is cyclical with targets and plans set in three to five year phases. Tentative Order at 48.

For the same reasons outlined above, the OCA submits that there is not sufficient data to warrant the proposed changes by the Commission at this time and that it is premature to make a determination regarding whether 60% of the avoided cost of generation capacity is appropriate. As is discussed above, experience with the Peak Shaving Adjustments has been limited. The OCA submits that the Commission should allow for comments once the results of the Pennsylvania PJM analysis have been completed to determine whether EDCs should be required to participate in the Peak Shaving market. After the experience has been evaluated and if the Commission determines that it is appropriate to require inclusion in the Peak Shaving market, only then should the parameters for monetization be considered.

III. CONCLUSION

The OCA appreciates the opportunity review the Tentative Order regarding the Total Resource Cost test and to provide Comments. The OCA respectfully submits that its Comments and recommendations contained herein should be adopted.

Respectfully Submitted,

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