



April 28, 2020

Pennsylvania Public Utility Commission
Attn: Rosemary Chiavetta, Secretary
Commonwealth Keystone Building, 2nd Floor
400 North Street
Harrisburg, PA 17120

Dear Secretary Chiavetta:

The Pennsylvania Department of Environmental Protection (DEP) appreciates the opportunity to comment on the Pennsylvania Public Utility Commission's Phase IV Energy Efficiency and Conservation Program Tentative Implementation Order, Docket Number M-2020-3015228. DEP's comments focus on support of the Commission's recommendations to improve the overall energy conservation and efficiency performance of the Act 129 program. The Act 129 program is one of the integral components of Pennsylvania's overall Climate Action Plan, benefitting all Pennsylvania businesses and citizens. Please find DEP's comments enclosed.

If you have any questions, please feel free to contact David Althoff Jr., Director, Energy Program's Office, by e-mail at dalthoff@pa.gov or by telephone at 717.783.0542.

Sincerely,

A handwritten signature in black ink, appearing to read "Patrick McDonnell". The signature is fluid and cursive, with the first name "Patrick" and last name "McDonnell" clearly distinguishable.

Patrick McDonnell
Secretary

Enclosure

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Implementation of the Alternative Energy Portfolio Standards Act of 2004: Phase IV Energy
Efficiency and Conservation (EE&C) Program Tentative Implementation Order
Docket No. M-2020-3015228

**COMMENTS OF THE
PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

The Pennsylvania Department of Environmental Protection (DEP) appreciates the opportunity to comment on the Pennsylvania Public Utility Commission's (PUC) Phase IV Energy Efficiency and Conservation (EE&C) Program Tentative Implementation Order. DEP's comments focus on support of the Commission's recommendations to improve upon the overall energy conservation and efficiency performance of the Act 129 program.

Proposed Reductions in Electric Consumption

PA DEP supports the PUC's evaluation of the cost-effectiveness of the EE&C Program and the proposal to add additional required incremental reductions in consumption and peak demand. The PUC's use of "Act 129 Achievable Potential" described in the February 28, 2020 *Pennsylvania Act 129 - Phase IV Energy Efficiency and Peak Demand Reduction (EEPDR) Market Potential Study Report* outlined in the Tentative Implementation order is appropriate.

The "Act 129 Potential" reflects estimated savings when limiting Electric Distribution Companies' (EDCs) budgets to the Act 129 spending limits, including energy efficiency and associated peak demand reductions for each EDC. Table 3 of the *EEPDR Market Potential Study Report* shows the estimated Act 129 Potential in Pennsylvania consistent with Act 129 spending caps with an estimated overall utility program acquisition cost of \$271/MWh. The "Act 129 Potential" would result in the sum of incremental annual savings of 4,513 GWh and 878 MW of peak demand savings with a benefit-cost ratio of 1.62 statewide. The report indicates that the EDCs can achieve a combined annual electric savings equal to 0.62 percent per year of the baseline 2009 – 2010 load. This outcome supports the PUC's conclusion that the benefits of a Phase IV EE&C program will exceed the costs and therefore additional required incremental reductions in energy consumption for another five years is prudent. Additionally, DEP agrees with the Commission's recommendation that the EDCs design their EE&C Plans to achieve at least 15 percent of their consumption reduction target in each program year.

Comprehensive Programs

The Commission proposes that each EDC's EE&C Plan include at least one comprehensive program for residential and at least one comprehensive program for non-residential customer

classes. The PA DEP recommends that the Commission propose more than one comprehensive program for residential and non-residential customer classes. The EDCs have already previously offered programs such as the Energy Star Residential New Construction programs. DEP recommends EDCs additionally explore new programs such as Passive House that result in deep energy savings in the buildings sector. Realizing there is no one size fits all comprehensive approach, DEP suggests implementing a comprehensive mix of whole building, direct install, and prescriptive programs which have proven to be effective for the residential sector. For the non-residential sectors, DEP's Energy Programs Office has offered programs such as Building Operator Certification and Building Retuning Trainings for the government and educational sectors and encourages the EDCs to explore partnership opportunities to further deploy these successful programs.

DEP also recommends that EDCs consider offering programs such as ISO 50001. U.S. Department of Energy's 50001 Ready Program offers support and resources for utilities and public benefits administrators. While recognizing the EDCs have gained experience from current successful program offerings, there may be additional lessons learned from successful energy efficiency programs in other states. In January 2019, ACEEE issued a report, *The New Leaders of the Pack: ACEEE's Fourth National Review of Exemplary Energy Efficiency Programs*. This report outlined a number of successful utility programs offered to a variety of sectors. Some examples are; Vermont's High-Performance Homes Program for new construction, net-zero ready, prescriptive-incentive programs for residential new construction customers seeking stick-built homes, and Puget Sound Energy's Commercial Strategic Energy Management, which provides technical assistance, peer teaching, reinforcement energy modeling and a per-kWh savings incentive for commercial and industrial customers.

Carve-Out for Government, Nonprofit and Institutional (GNI) Entities

DEP agrees with the Commission's proposal to not require a specific carve-out for the GNI sector for Phase IV based on the results of the EEPDR Potential Study. The study indicated that the GNI sector is expected to produce a significant share of Phase IV consumption reductions at a comparable acquisition cost to the broader small and large C&I customer classes without a specific compliance target. Not requiring the carve-out will allow more flexibility in program offerings, potentially reduce the issue of waiting lists and align program offerings according to budget timeframes for capital expenditures of this sector. Additionally, not requiring a carve out may have the potential to save additional administrative costs for the EDCs. DEP concurs with the Commission that EDCs' Plans should include, however, a description of how this sector will be served.

Proposed Reductions in Peak Demand

For Phase III, DEP recognizes that customers could participate in Demand Response commitments in PJM's capacity market as well as in the Phase III Dispatchable Demand Response (DDR) programs and receive compensation from both programs for taking only one action. The resulting benefit of the Phase III program was that the anticipated and actual response to summer peak load forecasts would then reduce resource requirements and ultimately the amount of generation capacity procured on behalf of Pennsylvania ratepayers.

For the Phase IV DDR Potential Study, the State-Wide Evaluator (SWE) elected to model a more coordinated Act 129 DDR program design that leverages the Peak Shaving Adjustment (PSA) mechanism,¹ developed by PJM in 2019. The DDR potential study demonstrated there are both administrative and timing challenges. These challenges were outlined in the Tentative Implementation Order:

- Act 129 planning timelines will not allow for PSAs to be recognized in the Base Residual Auctions (BRAs) corresponding to the five program years of Phase IV of Act 129. This limits the avoided cost of generation capacity benefit stream. At most, PSAs could be reflected in three of five years depending on how delayed the BRA for the 2023/2024 delivery year is.
- The PSA event trigger is a real-time temperature humidity index (THI). This is a significant departure from Phase III when EDCs and their Conservation Service Providers (CSPs) knew with certainty whether the following day would be an event day with over 24 hours' notice. A real-time THI trigger creates the possibility of an EDC not calling an event when the trigger is met or calling an event when the trigger is not actually met due to inaccuracies in weather forecasts.
- There is no limit to the number of peak shaving events that can be triggered in a summer. In an extreme summer an EDC could experience 15-18 DR events, based on the SWE's analysis of historic weather data.

The EEPDR Potential Study estimated that potential peak demand reductions for the 2021-2026 program period at the system level are 878 MWs of total incremental annual peak demand reduction. The DDR Potential Study estimated potential annual peak demand reductions of 198 MW. The EEPDR Potential Study includes a section comparing Phase IV metrics with and without funding for DDR programming.

The Department recognizes the value of DDR and appreciates the results of the EEPDR Potential Study, but defers to the Commission on how to best balance the costs and benefits of those approaches. DEP does agree with the Commission's preference that lasting peak demand reductions be achieved by EE measures.

The Commission proposes to continue to use the average "top 100 hours" peak demand values for each EDC from the period June 1, 2007 through May 31, 2008, as the consumption baseline from which to express incremental savings in Phase IV. DEP recommends the SWE conduct an interim evaluation of Phase IV for the approach to peak demand reductions. Due to the approach being a new process from previous phases, a new evaluation should also examine whether a more recent period of peak demand values can be used to reflect more current weather patterns due to our changing climate.

Application of Excess Phase III Budget

¹ See <https://www.pjm.com/-/media/committees-groups/subcommittees/las/20181127/20181127-item-04-peak-shaving-forecast-adjustments.ashx>

DEP agrees with the Commission's statement of the importance of a smooth transition from Phase III to Phase IV and the importance of the EDCs' specific programs not "going dark." DEP also agrees with the Commission that it would be beneficial to all parties, including ratepayers, for the EDCs to be allowed to spend Phase III budgets to attain savings in excess of compliance targets, which could then be used in Phase IV for compliance, without a commensurate reduction in Phase IV budgets. In addition, DEP supports allowing EDCs to utilize their Phase III budgets past May 31, 2021 to account for program measures installed and commercially operable on or before May 31, 2021, and to finalize CSP, EM&V, and reporting expenditures related to Phase III.

DEP encourages the Commission to continue to suggest pathways for the EDCs to effectively expend both the Phase III and Phase IV budgets to obtain energy savings in excess of the targets within each performance period. Full utilization of the budgets to obtain the most savings as early as possible allows Pennsylvanians to enjoy the economic and environmental benefits of energy savings both immediately and the compounding effects of the reductions sooner in the years to come.

Determination of Phase IV Allowable Costs

The Commission proposes for Phase IV that EDCs be required to submit an EE&C Plan which shows at least 50% of all spending allocated to incentives and less than 50% of all spending allocated to non-incentive cost categories. DEP commends the commission for continuing to address the issue of non-incentive costs. DEP recommends 50% as a maximum for administrative costs and that EDCs consider proposing and implementing a performance driven approach to the reduction of the non-incentive cost percentage to further drive down the cost of energy saved per dollar invested.

In summary, DEP is encouraged by the proposed improvements to Act 129's Phase IV Energy Efficiency and Conservation Program as outlined in the Phase IV Tentative Implementation Order. Pennsylvania's 2018 Climate Action Plan identifies "Increasing adoption of energy efficiency, and expanding Act 129" to be an incredibly cost-effective measure for reducing greenhouse gas emission in the commonwealth, with nearly \$200 in economic returns for each metric ton of carbon dioxide avoided.² In addition to helping to achieve progress in our fight against climate change, DEP encourages the commission to recommend that the EDCs identify and highlight the potential resiliency attributes they seek to implement along with energy efficiency measures for each customer sector. This recommendation is particularly important for the low-income sector who are often the most affected by both climate change and the energy and infrastructure disruptions which result. DEP anticipates that the proposed electric consumption reductions, program design and oversight procedures inclusive of the comments provided here will ensure ratepayer funds are being spent judiciously and at the same time save energy while benefiting the environment and the economy.

² See Pennsylvania Climate Action Plan 2018, page A-5.