Prepared Testimony of

Stephen M. DeFrank

Chairman, Pennsylvania Public Utility Commission

before the

House Consumer Protection, Technology & Utilities Committee

June 24, 2025

Pennsylvania Public Utility Commission

400 North Street Harrisburg, Pennsylvania 17120

Telephone (717) 787-4301

http://www.puc.pa.gov

Good morning, Chairman Burgos, Chairman Metzgar, and members of the House Consumer Protection, Technology & Utilities Committee. My name is Stephen DeFrank, Chairman of the Pennsylvania Public Utility Commission (PUC or Commission).

I appreciate the opportunity to testify in front of the Committee today on the important topic of Act 129 of 2008, and the energy efficiency and conservation (EE&C) plans administered by electric distribution companies (EDCs) pursuant to the Act.

Act 129 was passed to address concerns over increased prices in electric generation due to the upcoming expiration of electric rate caps. The goal of Act 129 is to cost-effectively leverage a portfolio of EE&C measures, otherwise known as the EE&C plan, offered by EDCs to their customers. These EE&C plans are financed by EDCs using ratepayer dollars capped at a specific figure established in Act 129 – two percent of each applicable EDC's 2006 annual revenues. I have listed the budget caps for each of the four EDCs to which Act 129 applies.

EDC	Annual Budget Cap
Duquesne	$19,545,952
PECO	$85,477,166
PPL	$61,501,376
FirstEnergy	$78,064,027
Statewide	$244,588,521

The Act requires the Commission to evaluate each EDC EE&C Plan utilizing the Total Resource Cost Test, or TRC Test. The TRC Test compares the overall cost of each plan with the overall savings realized from reduced electrical demand. A TRC in excess of 1.0 exhibits that the plan would result in more than one dollar in savings for every dollar invested. I note that the TRC for the entire EE&C plan must exceed 1.0 for approval by the Commission. However, specific measures or programs may be included in an EE&C plan even if those measures or programs result in a TRC of less than 1.0, so long as their inclusion does not result in the overall EE&C plan having a TRC test result less than 1.0. Such situations can arise for low-income programs, which are required to be included in EE&C plans under Act 129. Some pilot programs included in Act 129 plans may have a TRC less than one because the primary benefit of the program is information gathering, which is a non-monetary benefit not counted as part of the TRC test.

Act 129 is largely broken down into two components: energy efficiency and peak demand reduction. Energy efficiency (EE) refers to using less energy to perform the same function. Upgrading an air conditioning unit that is more energy efficient is an example of EE.

Peak demand reduction (PDR) refers to strategies or practices aimed at reducing electricity consumption during key periods, usually when demand is high demand or when the grid is unstable. Prices can be very high in those particular hours, so reducing demand in those hours can reduce overall energy costs, reduce grid operations costs, and avoid major capital expenses. One example would be raising the temperature on your thermostat in the middle of a hot, summer day, thereby reducing the amount of air conditioning and therefore electricity consumed during that key peak period.

Act 129 plans include a portfolio of various measures. Examples of these include, but are not limited to, the following.

Residential Measures

- Rebates for EnergyStar and high efficiency appliances such as refrigerators and freezers.
- Direct install of high efficiency appliances, and appliance recycling programs for low-income households.
- Free pick-up services for recycling older, working appliances such as refrigerators, freezers, air conditioners, and dehumidifiers.
- Rebates and point of sale discounts for the purchase and installation of certain higher efficiency lighting, such as LED lighting.
- Rebates for high efficiency heating, ventilation, and air conditioning (HVAC) equipment such as heat pumps, central air conditioning along with rebates for programmable and smart thermostats.
- Residential home performance programs that provide home energy audits and rebates toward implementing audit recommendations.

Non-Residential Measures

- Rebates for high efficiency HVAC equipment.
- Rebates for high efficiency lighting, occupancy sensors, and other lighting systems.
- Incentives focused on reducing energy and demand for specific commercial processes and applications, including manufacturing.
- Rebates for direct load control programs.
- Rebates to install variable speed drives to replace mechanical throttling devices or new variable speed drive applications.
- Incentives for customer-owned standby generation which focuses on reducing kW demand by deploying generation during peak load hours.

For each phase the Commission conducts both residential[1] and non-residential[2] baseline studies to determine the state of electricity usage in the Commonwealth. These include an assessment of things like the average age of housing stock, lighting use per square foot, building envelope assessment, types of heating and hot water, and other factors impacting electric demand in the Commonwealth. After these studies are complete, the Commission releases a TRC Test Order determining how benefits and costs are calculated.[3]

The next step involves the Commission conducting a market potential study for both EE and PDR.[4] The outcomes of these studies inform the Commission as to what targets and goals are attainable and should therefore be included in any implementation order. If there is achievable, cost-effective EE and PDR potential, the Commission will release an implementation order. It is important to note that if the results of our potential study show there is no cost-effective EE or PDR, the Commission will not propose another Act 129 EE&C phase. The implementation order sets targets for EE and PDR, if applicable. Equally important, implementation orders inform the EDCs of acceptable

[1] https://www.puc.pa.gov/media/2883/2023_pa_residential_baseline_study.pdf
[2] https://www.puc.pa.gov/media/2884/2023_pa_non-residential_baseline_study.pdf
[3] https://www.puc.pa.gov/filing-resources/issues-laws-regulations/act-129/total-resource-cost-test/
[4] https://www.puc.pa.gov/pcdocs/1867286.pdf

parameters for plan designs so that EDCs can create their own EE&C Plans that will best serve their unique customer base.

The Commission established the initial framework for administration and implementation of Act 129 in our Phase I Implementation Order, entered January 16, 2009, at Docket No. M-2008-2069887. We have been through several phases since then, with our EDCs currently administering Phase IV, set to expire on May 31, 2026. With that expiration approaching, the Commission recently issued a Final Phase V Implementation Order establishing the latest iteration of Act 129 EE&C Plans, issued on June 18, 2025, at Docket M-2025-3052826.

Highlights of our Phase V Implementation Order include the following.

- Placing an increased focus on measures that reduce peak demand to help mitigate growing resource adequacy challenges. For instance, PDR requirements are now extended beyond summer-only to include the winter months of January and February. Some Commonwealth EDCs are winter-peaking and the recent history of weather events has shown the need and benefit for addressing winter peak demand.
- Adding the optionality for managed electric vehicle charging.
- The Commission noted that EDCs can include non-customer-sited measures. For example, conservation voltage reduction and other front-of-the-meter offerings can provide low-cost, high-yield benefits that can help address growing resource adequacy concerns.
- EDC carryover of Phase IV MWh savings will be capped at a maximum of 20% of their respective Phase V reduction targets.
- EDC EE&C plans will be expected to include information regarding coordination of marketing, contractors, implementation strategies and incentives from other available agencies and funding programs.
- EDCs are required to help facilitate AEPS Act registration for commercial and industrial customers to register their EE projects. This will help educate customers of the opportunity to take advantage of increased AEPS Tier II credit prices while augmenting the declining supply of Tier II credits.

The overall budget allocation used to design the Final Implementation Order is below.

Portfolio Component	Statewide Acquisition Cost ($/MWh)	Statewide Acquisition Cost ($/MW)	Budget Allocation
Market Rate EE	$380.20	$2,913,669	67%
Low-Income EE	$646.32	$4,613,152	13%
Solar PV	$157.31	$1,191,212	9%
CHP	$32.13	$230,920	1%
Demand Response	$0.00	$834,403	10%

And lastly, the overall consumption (MWh) and peak demand (MW) targets along with their budgets are included below. These metrics cover the entire Phase V five-year plan.

EDC	Phase V Target (MWh)	Acquisition Cost ($/MWh)	Phase V Target (MW)	Acquisition Cost ($/MW)	Budget
Duquesne Light	261,583	$373.61	46.5	$2,102,662	$97,729,760
PECO	1,111,685	$384.45	194.8	$2,194,266	$427,385,830
PPL	828,231	$371.28	151.0	$2,035,823	$307,506,880
FirstEnergy	1,097,605	$355.61	191.0	$2,043,305	$390,320,135
Statewide	3,299,104	$370.69	583.3	$2,096,503	$1,222,942,605

The average bill impact for customers by class is detailed below. I wish to note that these are projections based on an average bill. However, each customer's usage is unique, and therefore, their respective Act 129 charges will vary based on those unique characteristics. This is particularly true for commercial & industrial accounts, which entail a broad array of electrical consumption profiles.

- Residential
  - $1.37 per month or 0.8% of monthly bill charges.
  - Based on an average monthly bill of $168.83.
- Small Commercial & Industrial
  - $9.28 per month or 1.1% of monthly bill charges.
  - Based on an average monthly bill of $820.09.
- Large Commercial & Industrial
  - $251.33 per month, or 1.0% of monthly bill charges.
  - Based on an average monthly bill of $24,505.20.

The Commission reviews the results, by year, for each phase of Act 129.[5] To date the Commission has the results for the first 15 program years of Act 129, which encompass Phases I through III, along with the first three program years of Phase IV. The overall cost and benefit results are detailed below.

Phase	Total Costs	Total Savings	Total Savings (MWh)	TRC Ratio
I	$803,726,000	$1,928,942,400	5,403,370	2.4
II	$613,973,000	$1,043,754,100	3,370,614	1.7
III	$891,337,000	$1,238,958,430	6,663,502	1.39
IV (PY13 - PY15)	$609,755,000	$853,657,000	2,450,364	1.4
Total to Date	$2,918,792,000	$4,961,946,400	17,887,850	1.7

As you can see, the portfolio of programs offered by EDCs pursuant to Act 129 has proven to be cost-effective, with over $4.9 billion in savings accrued from investment of just over $2.9 billion. These savings numbers also undercount long-term savings because benefits counted in the TRC test are limited to 15 years while some program measures have useful lives beyond 15 years and will add even greater benefits beyond the TRC.

In the current electric industry climate, where there is an increased interest around resource adequacy, it is important to consider the benefits that demand side management tools, like Act

[5] https://www.puc.pa.gov/filing-resources/issues-laws-regulations/act-129/act-129-statewide-evaluator-swe/

129, bring to the overall electric grid. We all understand that our bulk power grid needs more generation, or watts, added to facilitate increased load demands from the advancement of data centers and electrification projects. However, we should not lose sight of the value that demand side management tools can bring to help successfully navigate this wave of electrification.

To that end, the Commission supports the Committee's deliberation and consideration of prudent updates and reforms to the Act 129 statute. The electricity landscape has transformed considerably since Act 129's passage in 2008, and it is time for these demand side management programs to be revaluated to reflect lessons learned as well as new opportunities available. Areas of interest to the Commission include the following.

- Including measures to incentivize demand management from large load and hyperscale electricity users such as data centers.
- Placing an increased focus on time-of-use rates.
- Updating the budget structure.
- Extending the limit on the useful life of measures.
- Modifying the design to reward utilities for exceeding reduction targets.

Thank you for the opportunity to testify today, and I welcome any questions the Committee may have.