Act 129 Testimony Senate Consumer Protection and Professional Licensure Committee May 6, 2025

Good morning everyone. I would like to start off by thanking Chair Stefano, Chairwoman Boscola, Jennifer Smeltz, Jesse Monoski, and all members of the Senate Consumer Protection and Professional Licensure Committee for the opportunity to provide testimony on Pennsylvania's flagship Energy Efficiency program - Act 129. Again, my name is Brad Barkdoll, Government Affairs Director for the Keystone Energy Efficiency Alliance, KEEA, and I am joined today by Jeaneen Zappa, Executive Director of KEEA.

KEEA is Pennsylvania's trade association for the energy efficiency industry. Our industry is composed of a range of professions - from contractors and manufacturers to engineers, architects, and software developers - and a local workforce that cannot be outsourced. KEEA represents more than 75 members that manufacture, design, and implement energy efficiency improvements in buildings across Pennsylvania on behalf of regulated utilities, the state, and ratepayers. That includes single-family homes, multi-family and rental spaces, commercial buildings and industrial facilities. Today, I am excited to share with you our perspective on Act 129, including the foundation upon which it was built, benefits of the various Act 129 programs, and why Act 129 and energy efficiency as a whole is worth every ounce of ratepayer investment.

Program Background and Structure

Act 129 is Pennsylvania's flagship energy efficiency law. The act was signed into law in 2008, and directs Pennsylvania's major electric distribution companies to implement energy efficiency and conservation programs within their service territories. The distribution companies Act 129 covers are: PECO, PPL, Duquesne Light, and the four First Energy Companies Met-Ed, Penelec, West Penn Power and Penn Power. The overarching goal of the programing is simple - to reduce energy consumption and demand on the grid during normal conditions, referred to as weather-normalized consumption, and to reduce peak demand. Act 129 programs do this by targeting four customer classes - residential, low-income residential, commercial, and industrial ratepayers. The improvements made in the program provide lasting, year-over-year operating savings, not just a one-time benefit.

Set by the Public Utility Commission, electric distribution companies are given energy savings compliance targets that must be met over the course of three to five year phases. These energy savings requirements are the result of a robust, detailed reporting and accountability process leading up to the start of subsequent phases. The Statewide Evaluator scrutinizes energy efficiency and conservation programs and issues reports to the Public Utility Commission with findings and recommendations. Reports include residential and non-residential baseline studies towards the end of each phase and prior to the beginning of new phases to level-set. The Statewide Evaluator also conducts two market potential studies: the Energy Efficiency and Peak Demand Reduction & Response Study and the Demand Response Study for the next phase. Currently, we are approaching the end of phase IV, following three other successful phases that date back to June of 2009.

EDC Investments and Costs

The investments that electric distribution companies make annually into Act 129 programing are closely monitored and reported by the Statewide Evaluator. In the most recent measured year (2022-2023), the Statewide Evaluator Final Annual Report on Act 129 Program Year 15 found that the seven major electric utilities spent a gross total of \$405,422,000 on Act 129 programming.¹ Yes - that's a lot of money – and yes, this number encompasses program spending across the four areas of program focus - residential, low-income residential, commercial, and industrial. Importantly, though, the comparative energy benefits that electric distribution companies realized through these investments totaled \$585,182,000.² That means that based on the total resource cost test, the gross return on investment was \$1.44 for every dollar spent on Act 129 programs.³ That rate of return illustrates the demonstrative value of Act 129.

In addition, across the four ratepayer classes, the monthly surcharge that electric distribution companies pass along to ratepayers to fund Act 129 programming is small. Per the Pennsylvania Public Utility Commission's April 2025 Rate Comparison Report, the monthly surcharge for residential ratepayers averages around \$1.50; less than 1% of a residential

¹ NMR Group, Inc et al., "SWE Final Annual Report: Act 129 Program Year 15", 2024.

² NMR Group, Inc et al., 2024.

³ NMR Group, Inc et al., 2024.

ratepayer's monthly electric bill.⁴ Commercial and Industrial ratepayers also benefit from low monthly surcharge pricing for Act 129. In 2024, a large commercial ratepayer's (500KW Demand, using 200,000kWh) average monthly electric bill across the seven major distribution companies was \$17,004.60, with EE&C monthly charges averaging \$292.83, or just 1.7% of their bill.⁵ The average monthly electric bill for Industrial ratepayers was \$32,005.78, where EE&C charges accounted for an average of \$570.18 per month, or just 1.8% of their bill.⁶

It is worth noting that, as energy prices are projected to and will continue to increase over the next few months, the rate at which the different customer classes pay for electricity varies by a significant margin. In 2024, residential ratepayers in Pennsylvania paid 17.79 cents per kWh, 1.31 cents *more* than the national average; commercial ratepayers paid 11.01 cents per kWh, 1.48 cents *less* than the national average; and industrial ratepayers paid 7.84 cents per kWh, .31 cents *less* than the national average.⁷ Despite this gap in cost of electricity, ratepayers across all classes contribute an equally proportionate amount into energy efficiency and conservation programming, highlighting the fact that program investments across all rate classes are fair and equal.

Benefits and Value of Program

The impact that Act 129 has had over the course of its life is powerful, and the benefits programming has provided cannot go understated. Ratepayers across Pennsylvania in the first three phases have already realized over nine billion dollars worth of energy benefits from Act 129 programming.⁸ These energy benefits range from reduced cost on their monthly utility bills to other environmental benefits, such as a reduction in their carbon footprint, indoor air quality and health-related improvements, increased occupant comfort, and an increase in property value as a result of associated home improvements. Energy savings to date have also been staggering, where by the time phase four is completed in May 2026, the programs operated under Act 129 will have saved over 20 million megawatt-hours, which is enough energy to power 1.9 million homes for a year.⁹ Act 129 also has specific reduction requirements for peak demand. From June

⁴ Bureau of Technical Utility Services, "Pennsylvania Public Utility Commission Rate Comparison Report", 2025.

⁵ Bureau of Technical Utility Services, 2025.

⁶ Bureau of Technical Utility Services, 2025.

⁷ U.S. Energy Information Administration, "Electricity Data Browser", 2025.

⁸ KEEA calculations based on Statewide Evaluator Reports for Phases I, II, and III, "Act 129 Statewide Evaluator (SWE)."

⁹ "Act 129 Statewide Evaluator (SWE)."

2021 through January 2025, Pennsylvania's major electric distribution companies have saved over 430 megawatt-hours of peak demand.¹⁰

The current phase of Act 129 so far has achieved more than 2.4 million megawatt-hours of energy savings per year, which will return nearly a multiplier of fourteen times that energy savings over the lifetime of the conservation measures in place.¹¹ Additionally, the current five-year phase is expected to achieve nearly a 3.1% cumulative reduction in annual electricity use statewide.¹² To better visualize just how broad the energy reductions under Act 129 programming are, phase three reductions totaled 6.6 million megawatt-hours, which is enough to power every household in Somerset, Fayette, Bedford, Westmoreland, Greene, Washington, Butler, Armstrong, and Indiana Counties for a year with energy left to spare.¹³

The energy reduction realized through Act 129 programming is truly significant, but what is crucially worth noting is that the cost for consumers to support these programs is small. As previously described, the surcharge to residential customers to support Act 129 programs is roughly \$1.50 per monthly electric bill.¹⁴ Industrial users also pay into the program, where their investment in the program, as previously mentioned, is around 1.8% of their monthly bill. And above all, the reductions in energy consumption and the small surcharge to support the program from ratepayers realizes a significant return on investment. And again, in the most recent measured year of Act 129 (2023-2024), every dollar spent on energy efficiency resulted in \$1.44 in energy benefits, which includes avoided energy costs and operation and maintenance savings.¹⁵

Energy efficiency programs in Pennsylvania also generate jobs. According to E2's 2024 Clean Jobs Pennsylvania report, there are over 72,900 Pennsylvanians working in the energy efficiency space, making it the largest segment of energy workers in the state.¹⁶ The sector is continuing to grow, with energy efficiency jobs having increased by 4.2% from 2023, making it the nation's fourteenth fastest growing energy efficiency workforce.¹⁷ Employment in this space

¹⁰ NMR Group, Inc et al., "SWE Final Annual Report: Act 129 Program Year 16", 2024.

¹¹ NMR Group, Inc et al., "SWE Final Annual Report: Act 129 Program Year 15", 2024.

¹² NMR Group, Inc et al., "SWE Final Annual Report: Act 129 Program Year 15", 2024.

¹³ United States Census Bureau QuickFacts, "U.S. Census Bureau QuickFacts: Pennsylvania."

¹⁴ KEEA calculations based on Bureau of Technical Utility Services, "Pennsylvania Public Utility Commission Rate Comparison Report", 2025.

¹⁵ NMR Group, Inc et al., "SWE Final Annual Report: Act 129 Program Year 15", 2024.

¹⁶ "Clean Jobs Pennsylvania 2024."

¹⁷ "Clean Jobs Pennsylvania 2024."

spreads across a variety of industries, including: traditional HVAC, High-Efficiency HVAC and renewable heating & cooling, Energy Star and efficient lighting, and advanced materials.¹⁸

Issues & Improvement Potential

While Pennsylvania is ranked 10th in the nation for clean energy jobs, we are lagging behind nationally with energy efficiency programming deployment. The American Council for an Energy-Efficient Economy (ACEEE) 2025 State Energy Efficiency Scorecard ranks Pennsylvania 22nd in the nation for utility energy efficiency programming.¹⁹ The Scorecard also ranks Pennsylvania 27th in energy savings, with only .49% of 2023 retail electric sales being saved through energy efficiency.²⁰ Pennsylvania was also ranked 16th for low-income investment in energy efficiency, with just \$21 spent per eligible resident in 2023.²¹

There are several outdated provisions in Act 129 that would benefit from modernization to match current market conditions and demand. Currently, Act 129 spending per electric distribution company is capped at 2% of their annual revenues from 2006. Not only is this outdated and unadjusted for inflation, it limits the ability for distribution companies to further invest in the most cost-effective form of energy-saving technology.

But in order for distribution companies to want to invest more, the current penalty structure and program incentives need to be revisited. Current penalties can be levied anywhere from \$1-\$20 million, and incentives are minimal. Making revisions to program structure would shift this dynamic, from mandated participation through the threat of penalty, to one in which incentivizing overachieving energy savings goals would allow for a broader deployment and investment in energy efficiency infrastructure.

The way efficiency measures are calculated through the Total Resource Cost test also limits the whole picture of true energy savings. The cost test currently limits calculation at 15 years for the life of a measure. When Act 129 was created, technologies may have aligned more with this short life span. But as technology has advanced over the last 17 years, the 15-year limitation fails to take into consideration technologies that provide benefits exceeding 15 years. To better encompass a more accurate measure, the 15 year cost test should be reconsidered to

¹⁸ "Clean Jobs Pennsylvania 2024."

 ¹⁹ American Council for an Energy-Efficient Economy, "2025 State Energy Efficiency Scorecard."
²⁰ American Council for an Energy-Efficient Economy, "2025 State Energy Efficiency Scorecard."

²¹ American Council for an Energy-Efficient Economy, "2025 State Energy Efficiency Scorecard."

measure the full life of energy efficiency measures like high-efficiency furnaces. Under current limitations, program economic benefit potential is capped around \$2.8 billion. But if the cost test is reevaluated, and expenditure potential is increased, the economic potential soars to \$7.5 billion.²² And when considering reductions in consumption, expansion of the program from just electric savings to energy savings, regardless of fuel source, would make way for a broader encompassing of energy savings across measures not currently considered.

Successful State Programs to Look Towards

Other energy efficiency programs across the nation implement best practices that Pennsylvania programming could reflect. It is atypical that Pennsylvania's efficiency programming is restricted to electricity only. More than 30 states across the nation with electric energy efficiency programs also have gas efficiency programs. Measuring energy savings only through the reduction in electric consumption limits Act 129 programming from realizing broader benefits associated with energy efficiency. Also - heating is typically among the higher energy uses in a building, and many Pennsylvanians heat their homes with something other than electricity. Consequently, due to Act 129's parameters, they are often left with no energy efficiency program or very limited incentives. This narrow approach overlooks other significant and quantifiable measurements and outcomes - such as improved health, comfort, resilience, and emission reductions - that result from comprehensive efficiency investments. Minnesota, for example, measures their energy efficiency savings through a Total System Benefit approach known as the Minnesota Costs Test.²³ In addition to energy savings, this approach includes a broad range of utility system benefits, including energy savings, demand response, transmission and distribution savings, avoided emissions, avoided repair and replacement costs, and other non-environmental factors to measure avoided investments in other programming that energy efficiency simultaneously achieves.

Other states have robust informational resources and rebate programs that help advance energy efficiency. In Maine and Vermont, midstream programs provide direct financial incentives to contractors, manufacturers, and distributors for electrification installations. Efficiency Maine's Residential Heat Pump Incentives program directs energy efficiency

²² NV5 and Brightline Group, "Pennsylvania Energy Efficiency and Peak Demand Reduction Market Potential Study Report."

²³ "Leading States Embracing Climate-Forward Efficiency", 2024.

investments from ratepayers through channels that leverage state, federal, and electric distribution company investments to provide rebates for the installation of heat pumps. This cost-saving program serves as an intermediary between the energy efficiency program implementer and the customer to finance the purchase of heat pumps at wholesale from the distributor, cutting downstream costs of installation incurred by customers.

To maximize customer experience, Wisconsin and New Hampshire host statewide websites that serve as a central hub for learning about electric appliances, rebates, and other programs related to electrification. The Pennsylvania Public Utility Commission could also benefit from hosting a central hub, providing space for interested consumers to learn about programs such as Act 129, C-PACE, the Weatherization Assistance Program, and other energy efficiency programs they can tap into to save on their monthly utility bill. Such spaces could also reflect Vermont's Efficiency Excellence Network, which serves to promote and grow local workforces and businesses that engage in energy efficiency programming. The Efficiency Excellence Network houses online databases for certified contractors engaging in energy efficiency work that can be searched based on location, a space for training and education on available efficiency programming, and a meeting place for businesses and consumers to connect to learn more about energy efficiency options available to them. Creating a similar resource in Pennsylvania could accelerate implementation of energy efficiency projects across the state, as transparency in contracting and program resources in one consolidated space would make it easier for interested individuals to find the information they need.

While other energy efficiency programs operate in the Commonwealth, the Act 129 program is the only one to serve and benefit all ratepayers in all rate classes and should continue to do so. Moreover, as some of those other Federal energy efficiency or assistance programs like LIHEAP and the Weatherization Assistance Program are squeezed down or altogether eliminated, the protection for low-income households that Act 129 provides will be even more critical.

Conclusion:

Energy Efficiency programming in Pennsylvania has proven to significantly benefit ratepayers all across the Commonwealth. The over \$9 billion in energy benefits, 20 million mWh of saved energy, and over 430 mWh of peak demand conserved that Act 129 has contributed to the efficiency space barely scratches the surface of the potential benefits this program has to offer. In order to fully realize those benefits, decision makers and regulatory officials must continue to advocate for and protect Act 129 and see that the program continues to operate through many phases yet to come.

Energy efficiency programs more broadly return an array of benefits to consumers. While programs such as Act 129 return \$1.44 in energy benefits for every dollar invested, energy efficiency standards for appliances have been proven to reduce annual household utility bills by \$107²⁴, and basic heating and cooling costs can be cut down by 15% through basic air sealing and insulating measures.²⁵ Studies have also found that efficient programming can avoid 6600 premature deaths annually by reducing harmful emissions that can cause, among other conditions, heart attacks and lung damage as a result of profound effects of air quality.²⁶ And at a larger scale, these programs create a more resilient climate, where the EPA's ENERGY STAR program has avoided nearly 2.7 billion metric tons of emissions since 1992 in both the commercial and industrial sectors.²⁷

Electric prices for ratepayers across the PJM territory are going to be rising considerably on June 1 of 2025, and PJM's broken capacity market is in part to blame. The current clearing price that PJM capacity auction has committed to electric generators is just shy of \$29 per megawatt-day. Starting June 1, 2025, that clearing price will soar to almost \$270; an over 800% increase that will raise ratepayers' monthly electric bills by as much as 20%.²⁸ Now is not the time to step away from energy efficiency, as it is the cheapest, most cost-effective measure that reduces energy consumption and alleviates demand on an already stressed grid. With PJM's interconnection queue slowed, and new generation coming online slower than demand is calling for, we must continue to support programming that tackles energy usage from the source - energy efficiency.

Thank you again to Chair Stefano, Chairwoman Boscla, and all other members of the Senator Consumer Protection and Professional Licensure committee for allowing us the space to highlight the crucial need for Act 129 programming to continue producing benefits for ratepayers across the Commonwealth, and we look forward to any questions you may have.

²⁴ "National Standards | ASAP Appliance Standard Awareness Project."

²⁵ "Methodology for Estimated Energy Savings."

 ²⁶ Gillingham et al., "The Climate and Health Benefits from Intensive Building Energy Efficiency Improvements."
²⁷ "Facts and Stats."

²⁸ Howland, "PJM Capacity Prices Hit Record Highs, Sending Build Signal to Generators."

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