Proponent Testimony by Tom Bullock on House Bill 79
Executive Director, Citizens Utility Board of Ohio
House Public Utilities Committee
April 26, 2023

Chairman Stein, Vice Chair Robb Blasdel, Ranking Member Weinstein and members of the committee, my name is Tom Bullock, and I am executive director of the Citizens Utility Board of Ohio (CUB Ohio). Thank you for your work on this proposal and for the opportunity to testify. HB 79 would help a much greater number of utility customers save money by encouraging electric distribution utilities (EDUs) to develop voluntary energy waste reduction programs. Importantly, HB 79 learns from past experience and fixes problems with previous Ohio programs by incorporating quality controls, budget limits, and consumer protections to ensure consumers get a return on their investment: savings on their monthly bill.

A word about CUB Ohio: we are a non-partisan, non-profit consumer advocate working on behalf of residential and small business utility customers with members across the state in all utility service territories. We work for cheaper bills, reliable service, transparency, consumer rights, an energy system that delivers power equitably to all Ohioans—no matter our region or demographic—and that reduces emissions by leveraging new technology as well as new and old energy sources.

Today we are considering the oldest of all energy sources: waste reduction. The bill co-authors, Majority Leader Bill Seitz and Representative Bride Rose Sweeney, are 100 percent correct to focus on this often-overlooked energy source, since, as Leader Seitz stated in sponsor testimony, this is "the cheapest form of energy that exists: the energy that isn't used by reason of conservation and efficiency."[1]

CUB Ohio is supportive of utility-run, cost-effective energy efficiency and peak demand management programs that include quality controls. Utility-run programs are important tools for overcoming market barriers that limit residential and small business efficiency and for managing costs across the distribution, generation, and transmission systems.

A key point: research has shown that significantly more savings can be achieved with utility engagement than without.

- A study commissioned by the Midwest Energy Efficiency Alliance[2] showed that utility-run efficiency programs would achieve $962 million more in benefits annually than without them.
- The cleanest and least expensive unit of power is the one we don't have to use: an average of about 3 cents per kWh saved—cheaper than nearly all renewables and beating the cheapest traditional generation by 33 to 260 percent or more.
- Properly designed energy efficiency programs create immediate savings that reduce monthly bills. A 2021 study by Gabel Associates projects Ohio's *net* bill savings over a decade at $1.3 billion for a 0.5 percent annual energy waste reduction target, with $4.8 billion in additional environmental benefits.

[1] Leader Seitz made another important statement in March 23, 2023 op ed in the Cleveland Plain Dealer: "The repeal of the 2008 energy efficiency programs was not a vote against the goal of encouraging customers to become more energy efficient in their homes and businesses; most all of us support that as a goal. Rather, it was an attempt to clear the field of the old program with the anticipation that either the legislature or the PUCO would implement new and improved energy efficiency programs."

[2] Missed Opportunities: The Impacts of Recent Policies on Energy Efficiency Programs in Midwestern States, Prepared for Midwest Energy Efficiency Alliance, Revised November 16, 2021 by Synapse Energy Economics, Inc.

- Energy efficiency also creates more jobs per $1 million invested than fossil fuel generation (20 vs. 17), boosts the economy by shifting consumer spending to other goods and services (creating another 17 jobs per $1 million), improves new and existing buildings, and reduces emissions.

In addition, the market is not enough. A study by American Council for an Energy-Efficient Economy[3] names a series of market failures and market barriers that stand in the way of widespread adoption:

- **imperfect information**, including knowledge of the performance of different equipment, technologies, and buildings; difficulty in measuring energy savings; unknown future energy prices;
- **split incentives**, in which person or organization making decisions on efficiency investments or actions does not pay the energy bills, and thus has little incentive to reduce them, such as in the landlord-tenant relationship;
- **imperfect competition**, meaning the lack of a fully competitive market for a product or service, so prices may be inefficient or availability may be limited.

Experience by Citizens Utility Boards in other other states also shows the value and effectiveness of utility-run energy waste reduction programs:

- In Illinois, GWh saved through energy efficiency jumped twenty-fold;
- In Wisconsin, a long-running energy efficiency program that is funded by utility customers at 1.2% of utility revenues has been achieving customer savings successfully for 20 years, winning praise by outside evaluators for its work, including the Lawrence Berkeley National Lab as the most cost-effective such program in the country several years ago.
- In Michigan, programs are successful, with the Michigan PSC publishing annual reports on our energy waste reduction programs, including a summary of program benefits. For example, from 2019: "…aggregate EWR program expenditures of $347 million by all the natural gas and electric utilities in the state were estimated to result in lifecycle savings to customers of $1.180 billion. For every dollar spent on EWR programs in 2019, customers should realize benefits of $3.30. Data provided to the Commission in EWR provider annual reports indicated that EWR resources were obtained at a cost of $16.61/MWh, which is significantly less expensive than supply side options such as new natural gas combined cycle generation of around $42.80/MWh."

The need for energy efficiency will grow as the need for new power grows: Ohio recently attracted a large Intel chip manufacturing facility, and impending mass adoption of electric vehicles could increase household power use by as much as 40 percent. Energy use inflation will lead to price inflation *unless* Ohioans use energy efficiency to delink them. And there is lots of room to improve given how enormous energy waste is on our current grid: two-thirds of the electricity is wasted during delivery and use as it turns into heat and dissipates.

Ohioans shouldn't overpay for the economic growth we all want: we can reduce waste and cost with proper grid management, which includes as much efficiency as possible. Utility-run programs are an important and effective tool for achieving this—but now are lacking from our state.

These programs also create jobs: efficiency programs in Ohio support more than 73,000 jobs, the majority of which are provided by small businesses both in rural and urban areas. Nearly 11 percent of them are

[3] Overcoming Market Barriers and Using Market Forces to Advance Energy Efficiency by the American Council for an Energy-Efficient Economy, March 2013

held by military veterans whose service prepared them with skills for this work, a rate nearly double the percentage of veterans in Ohio's population at large.

We applaud the bipartisan work on this proposal and the . Frankly, it's a refreshing was to approach our responsibilities: put our minds together to address an orphan problem, make improvements, and make a better future for our economy, our properties, and the comfort level and health of living conditions for our families.

Thank you for the opportunity to provide proponent testimony. I am happy to answer questions.

Additional Background:

To explain how energy efficiency works and why incentive programs are effective and needed, it's helpful to review some background.

Do markets work on their own? Survey data on baseline consumer adoption of energy efficiency

Utility energy efficiency programs are generally the result of a detailed design process to determine whether a small "nudge" (usually in the form of an incentive payment) would be a cost-effective approach to convincing consumers to invest in energy efficient measures that are often more expensive up-front but in the long run will save money for them and the whole utility system. That approach involves, as the very first step, a data-driven study to determine whether consumers are buying energy efficiency measures on their own or whether market adoption rates show consumers are leaving savings on the table.

Although Ohio utilities have not gone through this program process for several years due to the suspension of energy efficiency programs under HB 6, in the past they have used it effectively to identify cost-effective savings opportunities. For example, in AEP's last energy efficiency plan, the company surveyed residential energy usage as of 2016 and found significant percentages of inefficient technologies for space heating and cooling, lighting, and food refrigeration. At that time, only 2% of lighting in residential homes was LED (with the majority of market share going to incandescent or CFL bulbs), and only 41% of refrigerators and 28% of standalone freezers were efficient "Energy Star" models. Almost 40% of central air conditioners and a full two-thirds of room air conditioners were inefficient. All of these represent savings opportunities where targeted incentives could help consumers identify when it makes sense to get rid of an old, energy-wasting appliance or light and replace it with better technology.[4] A similar study by Dayton Power & Light in 2017 found only a tiny proportion of homes had "smart" Wi-Fi thermostats – less than 10% of single family homes and none of the multifamily units surveyed – and the

[4] PUCO Case No. 16-574-EL-POR, AEP Energy Efficiency/Peak Demand Reduction Action Plan (June 15, 2016), Vol. 2, Appendix A, EE/PDR Potential Study, at A-8 to A-12, https://dis.puc.state.oh.us/DocumentRecord.aspx?DocID=1a7764f7-cb9f-4a51-8fd5-3e52f0407079.

company's plan therefore targeted smart thermostats as an area where utility incentives could promote market development in an area of innovative, emerging technology.[5]

More recent assessments from other jurisdictions show there is still plenty of room for utility programs to support consumers in identifying and affording energy-saving technologies. Commonwealth Edison, a major Illinois utility, conducted a study of baseline consumer purchases and efficiency potential that determined almost no purchases of "smart" advanced power strips, which are important to reducing energy waste from small electronic devices that are becoming a larger proportion of home energy use. This finding was part of a broader assessment of "naturally-occurring market adoption" of efficient technologies, which showed that baseline market adoption would also capture only a small proportion of cost-effective energy savings available to consumers in sectors like HVAC, appliances, and hot water heating.[6]

On the national level, U.S. Environmental Protection Agency data regarding the purchase of Energy Star products shows that in 2020, only 2% of consumer purchases of electric water heaters – a growing product category – were efficient models.[7]

In all of these cases, consumers are not always buying the most cost-effective, efficient option, either because the technology is new and unfamiliar or because the up-front cost is too high even if the purchase would result in long-term savings.

CUB Ohio is focused on looking hard at the facts about whether utility energy efficiency programs can actually help reduce costs for residential and small business consumers. These facts show they can.

Why are energy efficiency programs effective?: Reviewing myths and realities

Myth: Energy waste reduction programs are unnecessary because Ohioans will conserve energy on their own.

Reality: Without the programs that would be authorized by HB 79, Ohioans will waste energy unnecessarily and leave cost-effective energy savings on the table. Years of robust evaluation of efficiency programs across the nation, including in Ohio, have shown that such programs deliver added value for customers by giving them a "nudge" to adopt cost-effective energy efficiency measures that they *otherwise would not implement*. In a highly complex and technical field like energy, tailored utility programs can help point consumers toward the best cost-saving opportunities that they otherwise might not arrive at on their

[5] PUCO Case No. 17-1398-EL-POR, Dayton Power & Light 2018-2020 Portfolio Plan, Appendix A, Energy Efficiency Potential Assessment (June 15, 2017) , App. A, Fig. 41, https://dis.puc.state.oh.us/DocumentRecord.aspx?DocID=cbb8db40-0f90-44e2-91ca-88c8963bd232.

[6] Commonwealth Edison Energy Efficiency Potential Study: A Comprehensive Assessment of 2021-2030 Net Economic Opportunities at 20, https://ilsag.s3.amazonaws.com/ComEd-2021-2030-Potential-Study-Final-Report-rev1_Aug-2020.pdf.

[7] ENERGY STAR Unit Shipment and Market Penetration Report Calendar Year 2020 Summary at 6, https://www.energystar.gov/sites/default/files/asset/document/2020%20USD%20Summary%20Report_Lighting%20%20EVSE%20Update.pdf.

own. And HB 79's provisions regarding achieving savings above state and federal baselines, as well as auditing savings after the fact, will ensure that utilities only get credit for the real-life impacts of their programs beyond a "business as usual" scenario.[8]

Reducing energy waste through smart policy can have big benefits. In the most recent PJM wholesale market capacity auction, energy efficiency resources contributed almost 5,000 MW – as much as two or more power plants – to meeting the region's energy needs at least cost.[9] Most of that represents commercial and industrial energy efficiency measures, since it's more difficult to aggregate small residential efficiency improvements at the scale necessary to participate directly in the wholesale market. But utility conservation programs can similarly promote residential and small business efficiency measures that deliver significant, additive system savings at a low cost – such as AEP's 2019 efficiency programs, which reduced energy use by 85 MW and 560 MWh on an annual basis, at a levelized cost of just 3.2 cents per kWh.[10]

Myth: Energy waste reduction programs provide large profits to utilities without benefiting consumers.

Reality: Targeted incentives can help ensure that utilities are providing well-designed and well-run programs. Of course, the requirement for PUCO approval of proposed programs is designed to kick off that process by providing an avenue for Commission staff and stakeholders to provide review and input and help the Commission sort the bad apples from the good ones. The Northwest Ohio Aggregation Coalition has itself participated successfully in this process on occasion, intervening in a 2016 Columbia Gas proceeding regarding its conservation programs to advocate for a shift of program funding toward a smart thermostat rebate program. The Commission considered this input and directed Columbia Gas to make that funding shift if its other efficiency programs were not delivering the level of savings that the utility had projected.[11]

The limited incentive payments authorized in HB 79 are designed to keep that initial momentum going through the program implementation process, by avoiding a "cost-plus" approach in favor of one that rewards utilities for actually running programs efficiently after they are approved. HB 79 includes important safeguards to keep such incentives from becoming disproportionate to customer benefits, by capping the potential incentive amount far lower than has been awarded in the past and by providing for a robust program evaluation process to ensure customer savings actually materialize. This is an important element of an overall legislative framework designed to encourage utilities to voluntarily

---

[8] Proposed sections 4928.6639(D)(2), (E)(2); 4928.6660.
[9] PJM 2022/2023 RPM Base Residual Auction Results at 2, https://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/2022-2023/2022-2023-base-residual-auction-report.ashx.
[10] Case No. 20-1042-EL-EEC, AEP Ohio 2019 Portfolio Status Report of the Energy Efficiency and Peak Demand Response Programs at 9, 12, http://dis.puc.state.oh.us/TiffToPDf/A1001001A20E15B05738I01699.pdf.
[11] PUCO Case Nos. 16-1309-GA-UNC *et al.*, Opinion and Order (Dec. 21, 2016) at 36-37, available at http://dis.puc.state.oh.us/TiffToPDf/A1001001A16L21B42940H02444.pdf.

propose and implement energy-saving programs for customers that would otherwise not be available.

Myth: Energy efficiency programs force customers to pay for their neighbors' conservation measures without getting anything in return.

Reality: Under HB 79, all utility customers will have a regular, well-publicized opportunity to opt out of paying for energy waste reduction programs if they've concluded they have nothing to gain from participating. If you've decided you don't want to pay for your neighbor's efficiency measures, you won't have to.

If anything, the HB 79 opt-out provisions are a great deal for those who don't participate in energy waste reduction programs. All of a utility's customers are part of the same electrical grid and energy market. That means when high demand and high usage lead to high prices, everyone pays those prices regardless of how efficient they are in their own homes. It's the same as how we all pay higher gas prices when travel peaks over Labor Day weekend, even if we're just staying around town. Conversely, when your neighbor's usage goes down – especially at peak times of grid stress – that puts downward pressure on your energy costs too. So if you've opted out of paying for energy waste reduction programs, and those programs reduce energy usage and energy prices for everyone, you'll be getting some of the benefit even without paying for it.

Myth: HB 79 would prevent energy efficiency programs from taking advantage of competitive forces to deliver the best value to customers.

Reality: Although HB 79 would allow utilities to propose energy efficiency programs that provide net benefits for their customers, it is the competitive marketplace that would ultimately deliver those benefits as efficiently as possible. When the PUCO approves a utility energy efficiency program, the utility bids out the work of running the program to a third party vendor in a competitive process. In addition, programs are generally open to all manufacturers of qualifying technologies and providers of eligible services, allowing a customer to shop among competitors and select the product or service provider that offers the best bang for their buck.

The fact is, if you look at what's actually available in the competitive marketplace today for residential customers, it doesn't often include the type of broad energy management assistance that utility energy waste reduction programs can provide. There are HVAC contractors trying to help customers maintain comfort temperatures at home and retail suppliers trying to make sure they have the energy they need to power their household as a reasonable price, but a one-stop shop for reducing energy waste based on the best information and most advanced technologies is something that we just don't see being offered to many Ohioans. HB 79 will allow Ohio electric utilities to find those gaps and propose programs to help fill them cost-effectively.