Energy Efficiency for Everyone

HOW TO SUPERCHARGE EMPOWER MARYLAND

Maryland PIRG Foundation

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Executive summary

THE EMPOWER MARYLAND ENERGY EFFICIENCY ACT OF 2008 has done a lot to improve energy efficiency in Maryland – saving utility customers money, reducing pollution and helping protect the environment. But now, a decade and a half after it was first adopted, the programs that resulted from it can and should be updated to meet more of the state’s needs and better serve Marylanders. With smart reforms, the next iteration of EmPOWER Maryland can achieve greater total energy and financial savings, better serve limited-income Marylanders, and deliver even more environmental and public health benefits.

Under EmPOWER Maryland, the electricity and gas utilities and the state Department of Housing and Community Development administer a set of programs that help Maryland residents and businesses improve the energy efficiency of their buildings. By 2015, EmPOWER had met its initial goal of reducing per-capita electricity consumption and peak demand by 15% below 2007 levels.¹ Since then, it has continued to benefit Marylanders, with almost every participating utility meeting its annual goal of saving the equivalent of 2% of 2016 electricity sales in 2021.² Besides saving energy, EmPOWER has also:

• Reduced Maryland’s greenhouse gas emissions by the equivalent of 9.6 million metric tons of carbon dioxide cumulatively as of 2020, equal to taking 2 million cars off the road for a year.³

• Saved Marylanders over $4 billion on their energy bills so far, with expected lifetime savings of $12.7 billion for efficiency measures installed as of the end of 2021.⁴

But EmPOWER can – and must – do more to save energy, save money and cut pollution. As currently designed and implemented, EmPOWER does not achieve the level of overall energy savings that it could, does not adequately support the state’s climate goals, and does not do enough to help limited-income customers save energy.

Maryland utilities are leaving energy savings on the table.

• If, in 2021, Maryland had saved electricity at the same rate as the top states for energy efficiency from 2019-2021 did, Maryland would be saving an additional 236,164 to 408,154 megawatt-hours of electricity over the lifetimes of those programs, enough to power 22,200 to 38,400 average homes for a year (see Figure ES-1).⁵ At the 2021 average retail price of electricity in Maryland, 236,164 megawatt-hours are worth over $27.1 million, a price Marylanders may have had to pay unnecessarily.⁶

• Most programs within EmPOWER are run by the state’s five biggest electric utilities – Baltimore Gas & Electric, Delmarva Power & Light Company, Potomac Edison, Potomac Electric Power Company, and Southern Maryland Electric Cooperative, which together sell 93% of the state’s electricity.⁷ EmPOWER now also includes Washington Gas Light Company (WGL).⁸ These utilities spent less in 2021 on almost every program they administered than the allotted budget for those programs – in some cases less than half of the allotted budget. For instance, Potomac Edison spent just 42% of its $2.5 million residential HVAC program budget.⁹ Even before the COVID-19 pandemic,
many programs did not reach their energy savings forecast and/or use their full budgets. Significant underspending on important programs indicates that there is ample room for more benefits and savings from the programs.

Current EmPOWER incentives undermine Maryland’s climate protection goals and fail to encourage electrification of buildings, which is essential for cutting climate pollution.

- Achieving Maryland’s ambitious climate goals will require the state to eliminate almost all fossil fuel use. However, EmPOWER continues to provide incentives for fossil fuel-powered appliances like furnaces and water heaters, locking in decades of climate and air pollution.

- EmPOWER fails to adequately incentivize and prioritize efforts that would have both climate and efficiency benefits, such as replacing fossil fuel appliances and building systems with all-electric alternatives.

EmPOWER’s programs targeted at limited-income consumers, which are run by the state’s Department of Housing and Community Development (DHCD), deliver only limited savings.

- While limited-income households represent at least 26.5% of households statewide, only 17.5% of residential spending under EmPOWER is allocated for them.

- The DHCD-run limited-income EmPOWER programs account for just 3% of the total planned lifetime electricity savings from residential EmPOWER programs statewide, despite those customers using approximately 11% of the state’s retail sales of electricity.
• Low-income Maryland households spent an average of 12% of their gross income on energy in 2020. The Maryland Office of People’s Counsel recommends households spend no more than 6% of their gross income on energy.\textsuperscript{15}

• Neither the Maryland General Assembly nor the regulators in charge of EmPOWER have set binding goals for the limited-income programs, and DHCD achieved just 9% of its own nonbinding energy savings target for limited-income multifamily residences in 2021 and only 70% of its target for single-family homes.\textsuperscript{16}

• Current EmPOWER restrictions don’t allow DHCD to help any limited-income households switch from fossil fuel equipment to electric equipment.\textsuperscript{17}

With better design, EmPOWER could deliver greater energy savings for everyone.

• There is no mechanism by which the utilities are incentivized to actually meet efficiency goals or penalized for failing to meet those goals. Creating such a “performance-based” mechanism could help drive longer-lasting savings.

• The EmPOWER cost recovery mechanism was designed such that utilities self-finance EmPOWER programs, ratepayers repay just a portion of those expenses each year, and the unpaid expenses accumulate with interest, a cost-recovery design shared by just a handful of other states’ energy efficiency programs. The utilities have been earning a very high return on EmPOWER investments – from

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**FIGURE ES-2. PERCENT OF DHCD TARGETS FOR LIMITED-INCOME RESIDENTIAL PROGRAM ENERGY SAVINGS ACHIEVED, 2021\textsuperscript{18}**

![Bar chart showing energy savings achieved for multifamily and single-family homes in 2021.](image-url)
about 16% to over 20% of annual costs – and will continue to do so until 2024, when a recent ruling by the Public Services Commission will take effect (see “EmPOWER’s financing system fails to incentivize good performance and to protect ratepayers”).

In order for EmPOWER to meet the needs of the moment and to do more for the environment and all Marylanders, the General Assembly and the Public Service Commission should:

- Redesign EmPOWER to provide greater savings to more Marylanders:
  - Ensure that programs that provide deeper, longer-lasting savings serve as many people as possible;
  - Consider alternate administrative structures to increase the program efficiency of EmPOWER; and
  - Increase support for renters.

- Align EmPOWER with Maryland’s climate goals:
  - End incentives for fossil fuel appliances;
  - Incentivize electrification; and
  - Continue to boost efficiency.

- Improve EmPOWER for limited-income Marylanders:
  - Increase ambition for the limited-income programs by setting strong goals and making a plan to serve all limited-income households within the decade;
  - Allow limited-income EmPOWER programs to help Maryland households looking to switch to electric heating, water heating and cooking;
  - Improve implementation by making the programs easier to access and ensuring that EmPOWER applicants and participants are also considered for all other relevant funding sources, including new federal funding from the Inflation Reduction Act; and
  - Require reporting on the limited-income EmPOWER programs to be more detailed and comprehensive.

- Incentivize and penalize utilities based on their performance in delivering efficiency benefits to Marylanders.
ELIZABETH GILL, A BALTIMORE RESIDENT and EmPOWER participant, was living in a home without proper insulation or weatherization, with cold spots and drafts, that was generally uncomfortable, according to a profile produced by Energy Efficient Maryland. Through EmPOWER, Ms. Gill had her home insulated and weatherized, the cracks sealed and doors weather-stripped, the pipes insulated, and ventilation added, making her home noticeably warmer and less drafty in the winter and safer and more comfortable overall.

Ms. Gill is one of many Marylanders who are saving energy and saving money as a result of energy efficiency incentives available through EmPOWER Maryland. Altogether, the program has saved ratepayers over $4 billion on their energy bills, while reducing pollution and our dependence on fossil fuels.

There are, however, many more Marylanders like Ms. Gill who could benefit from EmPOWER but have not. For example, while the limited-income EmPOWER programs had helped a total of 47,476 households as of 2021, there are nearly 590,000 limited-income households in Maryland, meaning hundreds of thousands of Maryland’s least-resourced families have yet to be helped. And it’s not just limited-income households that have been left out. With energy bills rising and Maryland urgently needing to clear our air and reduce our impact on the climate, there is no time to waste in achieving EmPOWER’s full energy savings potential.

Since 2008, EmPOWER has made huge strides in reducing energy use, saving Marylanders money and improving peoples’ lives. But the needs of the state and its residents in 2022 are different. It is time to update and improve EmPOWER to meet today’s challenges and take full advantage of new opportunities to save energy and reduce our dependence on fossil fuels.
EmPOWER has reduced electricity consumption and saved consumers money

IN 2007, MARYLANDERS FACED A GROWING threat of rolling blackouts and skyrocketing electricity prices, the result of an imbalance between demand and supply and the expiration of fixed electricity rates adopted in the wake of power market deregulation. In response, state policymakers enacted the EmPOWER Maryland Energy Efficiency Act in 2008, establishing a goal of a 15% reduction in per capita electricity consumption and peak demand (meaning the highest level of total demand on the electrical grid) relative to 2007 levels by 2015.

EmPOWER Maryland tasked Maryland’s five major utilities – Baltimore Gas & Electric (BGE), Delmarva Power & Light Company (DPL), Potomac Edison (PE), Potomac Electric Power Company (Pepco), and Southern Maryland Electric Cooperative (SMECO) – which together provide 93% of Maryland’s electricity, with implementing this reduction. EmPOWER now also includes Washington Gas Light Company (WGL). The program is funded by a surcharge on customers’ utility bills, which averages less than $6 per month.

Caulking a window. Photo credit: StepPro via iStock.
The benefits of energy efficiency

Saving energy can be a means of achieving a variety of goals, including:

- **Reducing costs for consumers and ratepayers.** By reducing the amount of energy people consume and reducing the amount of infrastructure needed to provide that energy, efficiency improvements help ratepayers pay less on their utility bills. That’s because energy efficiency improvements are often a cheaper way for utilities to meet electricity demand than generating and distributing electricity.\(^{32}\)

- **Protecting public health by reducing air pollution from burning fossil fuels.** Burning fossil fuels, both indoors and out, produces air pollution that can cause a range of health problems, from damage to the lungs and heart to cancer to mental health and cognitive issues.\(^{33}\)

- **Improving the reliability and resilience of the electric grid.** Reducing demand for and consumption of electricity through energy efficiency improvements, and generally increasing building and appliance efficiency, can reduce strain on the grid, make it easier to keep the grid functioning, and keep people safe and comfortable through storms and other unexpected events.\(^{34}\)

- **Reducing greenhouse gas emissions.** By reducing fossil fuel combustion in buildings and from power plants, as well as the leaks of pollutants like methane associated with fossil fuel extraction and infrastructure, energy efficiency reduces greenhouse gas emissions and thus helps fight global warming and climate damage.\(^{35}\)

- **Making it easier to transition to renewable energy.** By reducing the amount of energy required to meet the needs of the public, energy efficiency reduces the total amount of dirty fossil fuel generation that must be replaced by clean renewable sources in order to protect public health and prevent the worst impacts of climate change. Energy efficiency also reduces the number of costly upgrades to electricity transmission and distribution systems that are needed, significantly easing the transition to renewable energy and reducing the time, costs and other resources required to make it.\(^{36}\)

Maryland policymakers have recognized the many benefits of energy efficiency. The goals of EmPOWER when it was first passed in 2008 were to maintain affordability and reliability by reducing electricity consumption and peak demand, and to provide cleaner energy for Maryland.\(^{37}\) When EmPOWER was updated in 2017, it was used as a cost-effective way to meet increasing demand for electricity.\(^{38}\) And in April 2022, Maryland passed the Climate Solutions Now Act, which (among other things) increased the energy savings goals of EmPOWER Maryland; expanded the goals of the program to include reducing greenhouse gas emissions, providing net customer benefits; and better helping underserved customers; and also directed the Public Service Commission to study whether the program’s methodology and goals were still appropriate.\(^{39}\)
EmPOWER energy efficiency initiatives offered by the utilities include:

- Free or discounted energy efficiency assessments for homeowners;
- Rebates on energy-efficient lighting and appliances;
- Rebates on weatherization and efficiency improvements;
- Free HVAC tune-ups;
- Discounts on air purifiers and dehumidifiers; and
- Discounts and incentives for energy-efficient upgrades for businesses.\(^28\)

In addition to the main programs, EmPOWER also offers two programs for limited-income Marylanders who are customers of the six participating utilities.\(^29\) Under the EmPOWER Maryland Limited Income Energy Efficiency Program (LIEEP), households with incomes below a certain threshold are eligible for home services such as energy audits, insulation installation, hot water system improvements, and lighting and appliance retrofits, among others, at no cost.\(^30\) The Multifamily Energy Efficiency and Housing Affordability Program provides funds to cover the purchase and installation expenses of “energy efficiency measures” for multifamily rental properties serving low-income tenants; funds are limited to no more than $3,000 per unit.\(^31\)

**EmPOWER’s past success**

EmPOWER has been remarkably successful. The 2015 energy demand reduction goals were met statewide, which reduced the need for expansion of transmission and distribution infrastructure and investments in generation capacity to meet peak electricity demand.\(^40\) In 2017, the Act was updated to establish a new annual savings goal of 2% of gross energy sales; unlike previous per-capita goals, this target figure is independent of population growth.\(^41\) Only Potomac Edison did not meet its 2021 energy efficiency electricity savings goal; the other electric utilities achieved between 103% and 113% of their goals.\(^42\)

EmPOWER has provided real climate and economic benefits over its lifetime:

- Through 2020, EmPOWER had reduced Maryland’s greenhouse gas emissions by the equivalent of at least 9.6 million metric tons of carbon dioxide cumulatively, equal to taking 2 million cars off the road for a year.\(^44\) It is possible that actual emission reductions are up to 20% larger than that, due to unreported savings from gas efficiency.\(^45\)
- EmPOWER has already saved Marylanders over $4 billion on their energy bills, and the expected lifetime savings from energy efficiency programs implemented as of the end of 2021 are over $12.7 billion.\(^46\)
- EmPOWER has reduced the costs of the energy system: The total lifetime cost per kilowatt-hour (kWh) for energy efficiency and conservation programs (meaning the cost per kWh saved) was $0.03 in 2021, compared to the standard offer service (meaning the energy cost of electricity), which ranges from $0.068 to $0.083 per kWh.\(^47\)
Maryland spends more on, and gets much higher savings from, energy efficiency relative to neighboring states. As of 2021, the utilities had spent over $3.5 billion on EmPOWER, including $2.3 billion on energy efficiency programs and $1 billion allocated for demand response programs. And, in 2021, Maryland saved multiple times more electricity as a percent of total statewide retail sales than did neighboring states Delaware, Pennsylvania and Virginia, likely due in part to spending a significantly higher share of electricity revenue on efficiency.

The American Council for an Energy-Efficient Economy (ACEEE), in its most recent analysis, ranks Maryland fourth in the nation for the lifetime energy savings of efficiency programs implemented in 2021 as a percent of 2021 retail electricity sales at 1.82%, behind only California, Michigan and Massachusetts. This comes after significant improvement over the course of a few years, with Maryland having been ranked 14th as recently as 2017 and having increased its energy efficiency savings from 0.97% of 2016 retail sales in 2017 to a peak of 2.14% of 2018 retail sales of electricity in 2019.

But, while EmPOWER Maryland has had success, it wasn’t designed for the needs of the current moment. There are a few specific ways EmPOWER is lacking and must be improved.
EmPOWER is not meeting Maryland’s current needs

Although EmPOWER Maryland has reduced electricity consumption statewide, the program could do more to better serve the state. The current needs of Marylanders require EmPOWER to increase the scope of the EmPOWER programs to deliver deeper, longer-lasting savings; to protect the environment by ending incentives for fossil fuels and encouraging the adoption of clean alternatives; to provide better service to limited-income ratepayers, who have not enjoyed the full benefits of the program; and to improve the design to deliver more energy savings at lower cost to the public.

Maryland utilities are leaving energy savings on the table

Maryland still lags behind the states with the best energy efficiency programs. Even in the years in which Maryland has been ranked highest in the ACEEE’s energy efficiency scorecards, other states have performed much better, showing that Maryland’s current investments in EmPOWER are not yielding the energy efficiency savings the state needs to conserve energy and address the climate crisis.

In 2017, the highest-ranked state in the ACEEE scorecard saved over three times as much energy as a share of its retail sales of electricity sales.
electricity than Maryland did. In 2018, the highest-ranked state saved over 50% more energy as a share of its retail sales of electricity than Maryland. And in 2021, the highest-ranked state saved nearly 22% more energy as a share of its retail sales of electricity than Maryland. (See Figure 2.) If, in 2021, Maryland had saved electricity at the same rate as the top states for energy efficiency from 2019-2021 did, Maryland would have achieved an additional 236,164 to 408,154 megawatt-hours of lifetime electricity savings, enough to power 22,200 to 38,400 average homes for a year. Using the 2021 average cost of electricity in Maryland, that energy savings gap potentially represents $27.1 million to $46.9 million in unnecessary energy bills.

The Climate Solutions Now Act of 2022 sets new, higher electricity savings targets for EmPOWER programs, reaching 2.5% of 2016 annual sales beginning in 2027, which is higher than the savings rate for the top state in 2021. But in order to meet the new, higher EmPOWER goals or to match the savings levels of the top states, Maryland utilities will have to do more than they are currently. In 2021, almost every EmPOWER program run by each of the utilities spent less than the allotted budget for that program. For instance, Potomac Edison spent just 42% of its $2.5 million residential HVAC program budget, and less than 90% of its budget on every other program except for residential energy efficiency kits. That means that the utilities generally achieved their overall energy savings goals but were prepared to spend and do much more in some programs. And there is more the utilities could do with EmPOWER programs: The utilities cited both the COVID-19 pandemic and contractor partners ending their participation in EmPOWER programs as reasons some programs fell short of their goals. Even before the COVID-19 pandemic, many utility programs did not reach their energy savings forecast and/or use their full budgets, indicating that underperforming is a problem not solely caused by the pandemic.

Maximizing the work done through EmPOWER programs – especially programs that deliver deep, long-lasting benefits like weatherization, retrofits and appliance rebates – would increase both the number of people who benefit from EmPOWER and the energy and bill savings EmPOWER brings.

**EmPOWER incentivizes continued reliance on fossil fuels**

Historically, energy efficiency programs have focused on increasing efficiency regardless of the fuel used, with little or no emphasis on encouraging consumers to switch to cleaner forms of energy. Efficiency programs incentivized the replacement of inefficient furnaces, water heaters and other appliances with more efficient versions of the same technologies, and measured program savings based on percentage reductions in the use of each individual fuel, whether gas or electricity. Because fuel-switching can be expensive, this approach was seen as the best way to reduce energy use at the lowest cost.

Today, however, advances in home electrification, coupled with the increasing urgency of the climate crisis, require that Maryland take a different approach. Affordable, highly efficient electric equipment and appliances are now available that can deliver dramatic savings in overall energy use while directly reducing consumption of fossil fuels that harm the climate. Such electric equipment and appliances are generally much more efficient than the fossil fuel-powered versions they replace. Heat pumps, for instance, extract heat from the air or ground in one place and move it somewhere else, enabling them to provide three to four times as much energy to a home in the form of heat as they consume in the form of electricity. Electric induction stoves use electromagnetic waves...
to heat the pot directly, transmitting energy much more effectively than traditional gas or electric resistance stoves can. Heat pumps, induction stoves and other electric technologies have seen dramatic improvements in quality and reductions in price in recent years, making them increasingly viable and cost-effective options for Marylanders.

At the same time, it has become clear that Maryland will need to end the direct burning of fossil fuels in our homes and commercial buildings in the next several decades if we hope to do our share to prevent the worst impacts of climate change. Policymakers have been increasingly clear that reducing greenhouse gases must be a central objective of EmPOWER going forward. The 2022 Climate Solutions Now Act, in addition to making greenhouse gas reduction a piece of the EmPOWER Maryland mandate, set a goal of achieving net-zero greenhouse gas emissions statewide by 2045, and put forward specific policies or plans of study to reduce the environmental impact of all sectors of the state’s economy. In July 2022, the Public Service Commission (PSC) recommended that the General Assembly take the additional step of enacting legislation to switch EmPOWER Maryland entirely from electricity savings goals to greenhouse gas emissions reduction goals.

A major factor in the importance of switching away from fossil fuels is that the climate and air pollution caused by burning fossil fuels in our buildings – such as in gas stoves or furnaces – both present threats to public health. By driving global warming, climate pollution increases the risk of a variety of health impacts, including heat stress, vector-borne diseases and mental health problems. In addition to producing greenhouse gases, fossil fuel equipment also produces toxic air pollution. A recent study found that indoor air pollution from gas stoves alone is responsible for almost 13% of all childhood asthma cases nationwide. A separate me-

A heat pump outside a home. Photo credit: Phyxter Home Services, CC BY 4.0.
ta-analysis found that living in a home with a gas stove increases a child’s risk of asthma by 32%.68 Air pollution in general can cause a wide range of health problems, from cancer and damage to the heart and lungs to mental health problems, decreased cognitive functioning, impaired fertility and even premature death.69 In the U.S. alone, air pollution is estimated to cause hundreds of thousands of premature deaths each year.70

The increased availability of affordable electric options and the urgent need to phase out fossil fuel use in buildings mean that Maryland can no longer afford to incentivize the replacement of existing fossil fuel equipment with newer versions of the same technologies. Unfortunately, EmPOWER Maryland’s current goals are focused specifically on reducing electricity consumption and the incentives for gas equipment discourage Marylanders from switching to electric appliances.71 And EmPOWER does incentivize fossil fuel appliances, including and especially higher-efficiency methane gas (often called “natural gas”) furnaces.72 But those incentives are not the best tool to fight climate change. According to the Office of People’s Counsel, incentivizing electric heat pumps and ending incentives for gas furnaces for Washington Gas’s appliance program could result in a greater total reduction of greenhouse gas emissions than continuing current incentives for gas furnaces even if only one in five participants switched from a gas furnace to a heat pump and the other four participants chose less-efficient gas furnaces due to a lack of EmPOWER incentives.73 That’s because heat pumps are so much more efficient and less polluting than gas furnaces – air-source heat pumps can be over four times as efficient as the best gas furnaces.74

Incentivizing fossil fuel appliances is a bad choice in the short term and long term. Even the most efficient fossil fuel-powered furnaces, water heaters and stoves, which can last for decades, produce greenhouse gas and air pollution throughout their lifetimes, which is antithetical to Maryland’s climate and environmental goals.75 The current structure of EmPOWER continues to provide those misaligned incentives, but fails to sufficiently incentivize steps like home electrification that could lead to modest increases in electricity consumption along with dramatic reductions in fossil fuel use.

**EmPOWER does too little for limited-income Marylanders**

Investments in energy efficiency in limited-income homes and neighborhoods are critical for promoting healthier communities, for meeting the state’s climate goals, and ensuring everyone has a warm, safe home. But EmPOWER’s limited-income programs have performed poorly. They have failed to meet expectations and have delivered much smaller savings than residential efficiency programs serving non-limited-income customers.

### What does it mean to be limited-income?

Except where otherwise noted, “limited-income” refers to those making up to 250% of the federal poverty level.76

During the early years of EmPOWER Maryland, utilities ran energy efficiency programs for customers of all income levels. However, the Maryland Public Service Commission (PSC) found that utility-run limited-income programs had achieved just 21% of expected participation rates during the first three years of EmPOWER.77 Based on the past performance of the Maryland Department of Housing and Community Development (DHCD) in managing other energy efficiency programs, the PSC ordered DHCD to take
control over the limited-income EmPOWER programs, which it did in 2012.\textsuperscript{78}

Unfortunately, EmPOWER programs continue to provide inadequate help to limited-income communities. Specifically, the limited-income EmPOWER programs:

- **Work too slowly.** Between the inception of EmPOWER and 2021, the limited-income EmPOWER programs served just 47,476 households, though recent estimates count nearly 590,000 limited-income households in Maryland.\textsuperscript{79} At its current rate of implementation, EmPOWER would take between 130 and 148 years to serve all the limited-income households in Maryland.\textsuperscript{80}

- **Allocate disproportionately few resources to limited-income ratepayers.** While limited-income homes represent at least 26.5\% of Maryland households, only 17.5\% of residential spending is allocated for them, meaning that low- and moderate-income ratepayers receive disproportionately few efficiency services.\textsuperscript{81} Limited-income households may receive some benefits from utility-run efficiency programs, narrowing the discrepancy between limited-income and other residents, but Maryland’s least-resourced residents still receive too few benefits.

- **Achieve too little.** In 2021, the limited-income program achieved only 9\% of its nonbinding energy savings target for limited-income multifamily residences and only 70\% of its goal for limited-income single-family buildings.\textsuperscript{82} Neither the PSC nor the General Assembly have set binding targets for the limited-income EmPOWER programs. The Office of People’s Counsel calculates that the DHCD-run limited-income EmPOWER programs account for just 3\% of the total planned lifetime electricity savings from residential EmPOWER programs statewide, despite limited-income households using approximately 11\% of the state’s electricity.\textsuperscript{83}
Another troubling feature of the limited-income EmPOWER programs is the lack of detailed reporting, which would allow the government and advocates to figure out what is and isn’t working. Specifically, the reporting lacks details on the total number and demographics of applicants, the length of the application process, the reasons applicants were rejected, and how much money is collected from EmPOWER surcharges on limited-income households’ utility bills. DHCD provided what information it had in response to a request submitted under the Public Information Act, but the picture of the program is still incomplete.

Energy efficiency is particularly important for limited-income households because they shoulder a greater “energy burden” – the proportion of their gross income allocated to energy expenses – than other households. According to a September 2022 report from the Office of People’s Counsel, Maryland households earning up to two times the federal poverty level spent an average of 12% of their income on energy in 2020, as compared to the broadly recommended limit of 6%. In Baltimore, 25% of low-income households pay at least 21.7% of their income for energy costs. Large energy burdens can cause people to forgo other essentials like food or medicine or to do without heat or power.

Adding to the problem, gas prices are high and likely to rise in the coming years, and limited-income households may be hit especially hard. About 43% of Maryland households use gas for heat. A recent report by the Office of People’s Counsel indicates that gas utilities in Maryland are planning to spend a huge amount of money on capital investments – potentially tens to hundreds
of millions per year for decades to come—which will cause gas bills to approximately double in the next 25 years as utilities charge ratepayers for these capital expenses. At the same time, the process of electrifying all appliances and equipment in a growing number of buildings means that utilities will have fewer gas customers, resulting in stranded assets. As a result, each remaining gas customer will be burdened with a larger bill to pay off the utilities’ capital investments. If limited-income households are the last to transition to electric heat and appliances, those households could face even greater energy burdens in the years to come. According to DHCD, however, current EmPOWER restrictions don’t allow DHCD to help any limited-income households switch from fossil fuel equipment to electric equipment.

Improving the energy efficiency of limited-income households is also critical to meeting the state’s overall energy and climate goals. It can, however, require more effort and cost-efficiency projects can disturb such materials, they also offer an opportunity to improve the health and safety of a home and to deal with those problems safely.

Second, some modern building materials like spray foam and other kinds of insulation have toxic chemicals—such as formaldehyde or persistent bioaccumulative toxics—that can leach out and cause respiratory damage, cancer, reproductive problems and developmental effects. Luckily, there are alternatives for insulation and other building materials that are safer and healthier.

Finally, if sealing and weatherization activities don’t adequately address ventilation needs, they could worsen air quality and expose residents to toxics by sealing pollutants inside.

As Maryland works to reimagine and re-invigorate EmPOWER to meet today’s needs, it is important that the programs also include safeguards to ensure that necessary energy efficiency improvements enhance rather than harm Marylanders’ health, and that people who need help with efficiency improvements can also get help with health and safety improvements.
more to achieve comparable energy savings in limited-income households than in higher-income households.\textsuperscript{93} There are a number of reasons for this, including that limited-income households are more likely to live in housing with deferred maintenance needs that is more expensive to renovate and upgrade. For example, adding insulation to an attic makes little sense if the home’s leaky roof will soon damage that insulation. This is borne out by information from DHCD, which indicates that the first and third most common reasons EmPOWER applicants don’t receive assistance are leaking roofs and mold in the home.\textsuperscript{94} Additionally, limited-income households often lack the funds to make upfront investments in efficiency, meaning that they require greater financial assistance in order to make necessary upgrades, or are renters with little control over the efficiency improvements made to their housing.\textsuperscript{95}

EmPOWER is not currently designed or implemented to meet the needs of limited-income customers or to prioritize their participation. Between 80%-85% of the people who apply for energy assistance and are referred to the DHCD limited-income EmPOWER programs do not end up receiving upgrades to their homes.\textsuperscript{99} Data provided by DHCD upon request shows that only about 1/14\textsuperscript{th} as many projects were completed as the number of applicants for all limited-income energy programs between January 2021 and June 2022, though many of those completed jobs were for applicants from earlier program cycles.\textsuperscript{100} DHCD data further shows that more than 31% of all program applicants were deemed ineligible because of the condition of their home, having put incorrect information on their application, errors in the data system or reassignment to other programs, while over 45% of all applicants did not receive assistance because they were deemed "unresponsive," meaning multiple attempts to contact them did not succeed.\textsuperscript{101} However, it is unclear how often this is because of language barriers, people not being able to answer the phone at the times they are called, or mistrust of unknown people contacting them. There is also likely to be confusion because, for instance, applicants have to contact different agencies depending on where they live.\textsuperscript{102}

More fundamentally, efficiency programs that prioritize achieving the greatest short-term savings at the lowest immediate cost will tend to focus on “low-hanging fruit” energy savings – leaving difficult but essential challenges such as upgrading the efficiency of limited-income and multifamily housing by the wayside. The Inflation Reduction Act, passed by the U.S. Congress in August 2022, includes many rebates and incentives for energy efficiency and electrification projects that could dramatically lower the cost of such projects, especially for limited-income households, and could be combined with EmPOWER funding to provide more help to more people.\textsuperscript{103} Improvements to the limited-income EmPOWER programs – including allowing DHCD to assist with electrification and the adoption of specific, robust targets for efficiency upgrades for limited-income households – would help reduce the energy burden of those in Maryland with the least resources, help the state meet its climate goals, and improve health, safety, and comfort.

**EmPOWER has failed to incentivize good performance and to protect ratepayers**

The cost-recovery model for the utilities in place through 2023 has raised the costs of EmPOWER for ratepayers over time without maximizing energy savings. EmPOWER was designed such that the utilities finance the costs of the program and recover costs, with interest, from ratepayers under an amortization plan (in which payment for a cost is spread over time), a financing design for energy efficiency shared by only a handful of other states.\textsuperscript{104} By 2020, the utilities had accumulated over $822 million in unamortized program expenses, costs that Maryland ratepayers will
have to repay with interest. In 2020, the utilities earned a return of over $55 million from those unamortized costs. The cost recovery design that will be in place through 2023 has a number of problems, including:

- **Maryland utilities are profiting significantly more than utilities in other top states for efficiency.** In some cases, Maryland utilities receive returns multiple times higher than utilities in other states as a percent of efficiency program budgets. For example, Pepco earns a return equivalent to about 16% of its EmPOWER budget while BGE and PE earn returns equivalent to over 20% of their annual EmPOWER budgets, as compared to the efficiency administrators in Massachusetts, Vermont and Rhode Island, which all earn returns equivalent to 5% or less of their program budgets.

- **There has been no mechanism built into EmPOWER to repay the portion of utility spending that goes uncovered each year,** because ratepayers are only charged enough to cover a fraction of utilities’ full annual expenses and the return-on-investment of their unamortized expenses, and

- **There is no link between utility earnings and performance on providing efficiency benefits to Marylanders.** That means the utilities can still recover their expenses and profits even if the programs don’t meet energy savings goals or other goals of EmPOWER.

In late 2022, the Public Service Commission issued Order 90456 regarding the cost recovery mechanism and unamortized balance of EmPOWER. This order requires all EmPOWER utilities to adopt a cost recovery mechanism proposed by SMECO that phases in complete expensing of EmPOWER costs between 2024-2026 and pays back the unamortized balance by 2029. The PSC should ensure that the utilities adhere to the order requirements and that ratepayers are protected from sudden cost increases. But performance incentives are now even more important, as the utilities have a reduced profit motive to achieving or exceeding energy savings and emissions reduction goals.
Recommendations

IN ORDER TO MAXIMIZE THE ENERGY SAVINGS of EmPOWER for all Marylanders, to maximize the reduction of pollution that harms our health and the climate, and to ensure maximum benefits for limited-income households, state decision-makers should update EmPOWER in the following ways:

Redesign EmPOWER to provide greater savings to more Marylanders

Ensure the EmPOWER programs that provide deeper, longer-lasting savings serve as many people as possible. For instance, weatherization and electrification, which bring longer-lasting energy savings, improved comfort and health, and larger cuts to greenhouse gas emissions, should be provided to as many households as possible.

- New federal efficiency regulations will phase out the sale of lower-efficiency light bulbs, meaning general EmPOWER incentives for lighting should be discontinued as inefficient bulbs become unavailable (though providing bulbs for limited-income households may still be valuable).  

- Appliance rebates offered at the distributor level – such that distributors and retailers receive the rebates and pass on the cost savings to customers – should be streamlined and expanded to make cost savings easier for Marylanders to access and to reduce program costs.

- With oversight by the PSC, utilities and their program administrators (see below) need to expand their focus to prioritize activities like weatherization and electrification.

Consider alternate administrative structures to increase the effectiveness of EmPOWER. The less money that has to be spent on administration the more that can be spent on providing benefits for participants. While many states have utility-administered efficiency programs like Maryland’s, other options exist, including third-party administrators, government agencies or “efficiency utilities,” or coordinated programs among utilities that share planning and administration costs.

A non-utility administration structure could potentially help standardize offerings and provide simpler, easier access to EmPOWER programs with less administrative cost. A non-utility administrator could continue to work with the utilities and government agencies to use their knowledge and expertise, platforms and access to implement EmPOWER. It could also take over limited-income programs to similarly reduce administrative costs, simplify and streamline the process of applying for and getting help, and increase public awareness.

Other top states for energy efficiency use alternative administrative structures. Massachusetts, the state just ahead of Maryland in the American Council for an Energy-Efficient Economy’s 2022 ranking of energy saved by state utility programs, has an advisory board that oversees and helps design and coordinate the state’s utility-run efficiency programs, which are marketed under a statewide umbrella program. Vermont, the state ranked fourth for 2020, has a statewide energy efficiency utility that administrators that state’s efficiency programs, and has been able to help nearly half the low-income households in the state.
Establish a network of Community Outreach Specialists to help people navigate the application processes for EmPOWER programs. The navigators for the Critical Medical Needs program – which helps Marylanders whose health would be severely damaged by insufficient power or heating – have proven successful in helping vulnerable Marylanders get the assistance they need and to keep the power on. A similar program using navigators or Community Outreach Specialists could help answer questions, guide people through the application process and ensure they receive the benefits they need. Entities that could help provide these services include the utilities; relevant government agencies (such as DHCD, the Office of Home Energy Programs, Department of Human Services, or the Maryland Energy Administration); and advocacy organizations, food banks and community organizations. Such a program should include language assistance for Marylanders who primarily speak languages other than English. The EmPOWER administrators would need to establish such a network or coordinate with government agencies or outside organizations, with funding coming from EmPOWER revenue or taxes.

Increase EmPOWER support for renters. Under the current system, renters need to have their landlord’s permission for EmPOWER programs to provide efficiency improvements. But landlords, who often don’t pay for utilities, have little incentive to take on large projects that could cost them time or money, depending on what is required. Renters should be better able to access the benefits of EmPOWER, perhaps through a combination of:

- Requiring disclosure of a rental property’s energy use and efficiency status, including past improvements made, to tenants and potential tenants, creating an incentive for landlords to invest in energy efficiency improvements.
- Exploring requiring rental licenses from local jurisdictions to include a baseline level of efficiency in terms of weatherization, sealing and appliances, and possibly requiring rental licenses for all jurisdictions. Some local jurisdictions in Maryland require landlords to be licensed to rent out property, but such licensing does not necessarily require properties to be energy efficient.
- Providing EmPOWER funding for renters to undertake certain energy efficiency improvements without landlord approval, such as nonstructural improvements and ones that don’t replace built-in equipment (e.g., weatherstripping, removable interior storm windows and induction cooktops, among others).
- Allowing or expanding access to financing mechanisms such as on-bill tariffing. On-bill tariffing allows a utility to cover the cost of an energy efficiency improvement and uses the energy savings to pay for the cost, with nothing paid by program participants. On-bill tariffs also allow the cost of energy efficiency improvements to be attached to properties themselves via utility bills rather than borne by an individual tenant or landlord. This means that landlords do not have to pay for improvements from which they don’t derive financial benefits and allows the current tenant of a property to receive the energy and financial benefits of improved efficiency.

Remove barriers to access and simplify the process of participating in EmPOWER. Marylanders should know where to go to get access to the program; should be able to access applications, assistance and information through multiple avenues (online, by phone, in person, etc.); should not be required to provide unnecessary information; should have applications processed and information provided quickly; and should have as little red tape and bureaucracy to wade through as possible.
End incentives for fossil fuel appliances, incentivize electrification and continue to boost efficiency

Remove incentives for fossil fuel appliances. EmPOWER funds should not be allowed to be used for gas or other fossil fuel incentives. In spring 2022, advocacy and public interest organizations asked the PSC to remove incentives for gas appliances, but the PSC decided that, despite the legislative intentions of the Climate Solutions Now Act to reduce greenhouse gas pollution and protect the environment, ending gas incentives was not specifically required by the General Assembly. 24 Fossil fuels in our buildings pose a threat to health, safety and the environment, and Maryland should transition away from fossil fuels with all possible speed. Removing incentives for fossil fuels aligns EmPOWER spending with the state’s climate, environmental and public health goals.

Ensure that EmPOWER incentives can be used for electrification. Using EmPOWER to replace fossil fuel use in buildings with electricity is one of the best ways to align the program with the state’s climate goals, and will help protect Marylanders from the climate, environmental, health and safety threats of fossil fuels. Doing so will also protect Marylanders from exorbitant or unnecessary rate increases due to the rising costs of the gas system and the volatility of fossil fuel prices.

- Incentives for electrification should support EmPOWER’s other goals, including savings for consumers. Incentives for electrification, for example, should not be available for inefficient systems like electric resistance heating or stoves, and should be reserved for the most efficient types of equipment, such as heat pumps and induction stoves, which use less energy and have lower operating costs.

EmPOWER should continue to support energy efficiency measures like weatherization, improving the efficiency of appliances, and behavioral programs, among others. Continuing to improve energy efficiency is good for ratepayers and good for the environment.

Improve EmPOWER for limited-income Marylanders

Set strong goals for the limited-income EmPOWER programs. Limited-income households have received a disproportionately small share of EmPOWER spending and energy savings. Setting a required level of energy savings for the limited-income programs, a required level of spending for the program, a required number of households to help per year, or some combination of those would ensure the limited-income programs help more households in need and deliver greater benefits. The importance of setting goals for the limited-income programs has been recognized by the American Council for an Energy-Efficient Economy, Environmental Defense Fund, the Office of People’s Counsel, the Public Service Commission and the Maryland General Assembly. 25

Allow limited-income EmPOWER programs to help Maryland households looking to switch to electric heating, water heating and cooking. DHCD should be able to use EmPOWER funding and other relevant program funding to help limited-income Marylanders switch from fossil fuels to electricity in their homes.

Make a plan to serve all limited-income households within the decade. This will require a significant allocation of resources and expansion of the current programs, as well as an acceleration of the rate at which limited-income households receive help, and will require DHCD and the PSC to work together.

- Maryland bill HB 108/SB 524, which was vetoed by Gov. Larry Hogan in May 2022, would have required DHCD to make a plan to retrofit all limited-income house-
holds with energy efficiency improvements by 2030.126

• Achieving such a goal, and potentially even implementing the changes recommended previously, may require a redesign or overhaul of the limited-income program, and possibly the help of outside consultants and/or an administrator from another state with experience running successful limited-income efficiency programs. It may also require additional resources beyond those currently provided specifically through EmPOWER.

• Limited-income households should receive services that provide deep, long-lasting savings, including weatherization, appliance upgrades and electrification.

Improve limited-income EmPOWER program implementation. The process for receiving help from DHCD should be simplified and improved. Coordination between all the agencies and teams that help limited-income Marylanders should be expanded.127 Both of these changes will help more limited-income Marylanders get the assistance they need.

• Utilities should publicize the programs on every utility bill; work with community groups and leaders to spread awareness of the limited-income EmPOWER programs; make the programs more visible on each utility’s website; and find new ways to alert customers without internet access about the availability of EmPOWER programs. DHCD should make it easier to learn more about and apply for the programs over the phone, in person and online.

• The state should develop resources to ensure that EmPOWER applicants and participants also take advantage of other applicable funding sources to assist with energy efficiency and other home upgrades—ideally by making that information available in a single place and at no cost and/or by automatically alerting participants and other agencies if an applicant is eligible for other programs. This includes funding from other state programs and federal funding that can assist with efficiency upgrades, weatherization, and health and safety improvements. When the state-administered, nontax-credit federal incentives for energy efficiency and electrification from the 2022 Inflation Reduction Act become available, they should be integrated with services provided through EmPOWER to increase benefits to participants.128

• Maryland should also raise or eliminate the cap on health and safety improvement costs and use health and safety funding programs to assist with such work, to allow applicants to get more help if needed for projects such as roof repair or mold remediation.129

Require reporting on the limited-income EmPOWER programs to be more detailed and comprehensive. This will allow the government and advocates to better track the effectiveness of the programs, identify successful strategies and find opportunities for improvement. The reports should include:

• Details on the total number of applicants for the limited-income programs, the utilities serving them, renter vs. homeowner status, and method of application.

• Average length of the application process, from initial application to work being completed, and a breakdown of the reasons applicants were rejected.

• Details on progress toward the goals set as outlined above, including savings and spending in relation to goals.

• Total amount of money collected through EmPOWER surcharges on limited-income households’ utility bills.
Redesign the EmPOWER utility incentive mechanism

Incentivize utilities based on their performance in delivering efficiency benefits to Marylanders. Performance incentives, whereby the utilities would be able to earn a little more revenue for meeting or exceeding efficiency goals, align utility and public interests and link the payments to actual benefits realized by Marylanders. The incentives should also include penalties for substandard performance, to further ensure compliance. In 2022, the Maryland Energy Administration and the Office of People’s Counsel recommended introducing performance-based incentives to EmPOWER.131

Ensure that the requirements of PSC Order 90456 are fully implemented by the utilities and do not cause overly burdensome rate hikes for Marylanders.

Improve EmPOWER in general

Ensure that the benefits of EmPOWER go directly to Marylanders as much as possible. As happens now, most or all of the program spending should be on behind-the-meter or community resources that directly impact households and communities rather than on upgrades to utility infrastructure, which should be undertaken anyway and are compensated through utility rates.132

Focus on the experience of the participants

whenever an EmPOWER program is being designed or implemented, or when changes or improvements are being considered and made – making it as easy, simple, intuitive and fast to access the programs and get help as possible. Conducting surveys of EmPOWER participants, applicants, and ratepayers generally to determine what parts of the program are working and what barriers people face in using the programs might help shed light on how to make the programs better known, simpler and easier to access.

Prepare for EmPOWER to reach more Marylanders, including by expanding the network of contractors and providing more education and outreach about electrification initiatives to contractors. In order to provide more and deeper savings, EmPOWER will need to expand its scope and reach, and will thus need a larger network of certified contractors. Providing ongoing training and certification for contractors to be regular program partners and deliver services helps ensure program participants see the most benefits.133 Such training should at least cover potential electrification options and the work needed to install them.

Require EmPOWER efficiency improvements to not expose workers or residents to toxic chemicals, by banning materials containing the chemicals of greatest concern, ensuring contractors and residents aren’t exposed to toxics during or after work, and requiring ventilation testing and improvement if needed.134

Ensure EmPOWER continues to reduce peak demand for electricity. While EmPOWER originally included an explicit goal for peak demand reduction, and utilities continue to report peak demand reductions, there is no current goal or requirement. Reducing peak demand helps minimize the need for new generation, transmission and distribution infrastructure; can improve reliability and resilience; and can bring monetary benefits to ratepayers if compensated demand response programs are used.
Notes


9 Potomac Edison Company, The Potomac Edison Company 2021 Second Semi-Annual EmPOWER Maryland Report for the period of January 1 – December 31 (Case No. 9648), 14 February 2022, p. 3, downloaded 19 October 2022 from https://www.psc.state.md.us/search-results/?q=9648&x.x=8&x.y=15&search=all&search=case.


13 David S. Lapp et al., Office of People’s Counsel, filing submitted to PSC, Re: Case No. 9648 – OPC additional comments to EmPOWER Future Programming Work Group on cost recovery and limited-income goals – REVISED, 29 March 2022, pp. 2 and 4.

14 Based on the 2021-2023 EmPOWER plans. See note 13, p.2 for 3% of electricity savings and p.5 for total limited-income retail sales of electricity; Maryland total retail sales of electricity: U.S. Energy Information Administration, *Electricity Data Browser*, accessed 4 November 2022 at https://www.eia.gov/electricity/data/browser/#/topic/5?agg=0,1&geo=00000008&endsec=vg&freq=A.


16 See note 2, p. 13.

17 Brandi Bottalico, Department of Housing and Community Development, 29 December 2022, personal communication.

18 See note 2, p. 13.


20 Ibid.


24 See note 3.


26 See note 8.


29 According to the Department of Housing and Community Development, as of early 2023 “limited-income” refers to individuals making $62,600 or less per year, with higher maxima for additional family members in a household: Maryland Department of Housing and Community Development, EmPOWER Maryland Limited Income Energy Efficiency Program, accessed 11 January 2023, archived at https://web.archive.org/web/20221108214748/https://dhcd.maryland.gov/Residents/Pages/lieep/default.aspx.

30 Ibid.


32 See note 2, p. 2.


39 Ibid., p. 3.


43 See note 2, p. 22.

44 See note 3.

45 VEIC for Maryland Office of People’s Counsel, Q1-Q2 2022 EmPOWER Semi-Annual Reports Comments, 17 October 2022, p. 26, accessed 1 November 2022 at [https://www.psc.state.md.us/search-results/?q=9648&x.x=25&x.y=8&search=all&search=case](https://www.psc.state.md.us/search-results/?q=9648&x.x=25&x.y=8&search=all&search=case).

46 See note 21; see note 2, p. 2.

47 See note 2, p. 2.

48 Ibid.


50 Ibid., p. 34.


54 See note 49, p. 34.


56 See note 6.


59 Washington Gas: no program spent its full budget; Potomac Edison Company: one out of 14 programs spent its budget; Delmarva Power: no program spent its full budget; Potomac Electric Power Company: four out of 18 programs spent their full budget; Baltimore Gas & Electric: four out of 21 programs spent their full budget (excluding DHCD program and programs with no budget); Southern Maryland Electric Cooperative: two of 22 programs spent their full budget. See: Washington Gas, Washington Gas EmPOWER Maryland Semi-Annual Report July 1, 2021-December 31, 2021, 15 February 2022, pp. 3-4; Potomac Edison Company, The Potomac Edison Company 2021 Second Semi-Annual EmPOWER Maryland Report for the period of January 1 – December 31 (Case No. 9648), 14 February 2022, p. 3; Delmarva Power & Light, Delmarva Power & Light Company’s EmPOWER Maryland Report Year-to-Date Q3 & Q4 2021 Energy Efficiency and Conservation and Demand Response Programs, 15 February 2022, pp. 41-42; Potomac Electric Power Company, Potomac Electric Power Company’s EmPOWER Maryland Report Year-to-Date Q3 and Q4 2021 Energy Efficiency and Conservation and Demand Response Programs, 15 February 2022, pp. 42-44; Baltimore Gas & Electric, Case No. 9648 – Baltimore Gas and Electric Company 2021 Year-End EmPOWER Maryland Report for January 1 through December 31, 2021, 15 February 2022, p. 9; Southern Maryland Electric Cooperative, Case No. 9648 (Formerly Case No. 9157 and 9494), Southern Maryland Electric Cooperative, Inc.’s Q3/Q4 2021 Semi-Annual EmPOWER Maryland Report, 15 February 2022, Attachment 1 p. 36. All reports downloaded 19 October 2022 from https://www.psc.state.md.us/search-results/?q=9648&x.x=8&x.y=15&search=all&search=case.

60 Potomac Edison Company, The Potomac Edison Company 2021 Second Semi-Annual EmPOWER Maryland Report for the period of January 1 – December 31 (Case No. 9648), 14 February 2022, p. 3, downloaded 19 October 2022 from https://www.psc.state.md.us/search-results/?q=9648&x.x=8&x.y=15&search=all&search=case.

61 See, for example: Potomac Edison Company, The Potomac Edison Company 2021 Second Semi-Annual EmPOWER Maryland Report for the period of January 1 – December 31 (Case No. 9648), 14 February 2022, p. 4; Delmarva Power & Light, Delmarva Power & Light Company’s EmPOWER Maryland Report Year-to-Date Q3 & Q4 2021 Energy Efficiency and Conservation and Demand Response Programs, 15 February 2022, pp. 9 and 18. All reports downloaded 19 October 2022 from https://www.psc.state.md.us/search-results/?q=9648&x.x=8&x.y=15&search=all&search=case.

62 See note 10.
63 Bryn Huxley-Reicher, Frontier Group, and Brynn Furey and Johanna Neumann, Environment America Research & Policy Center, Electric Buildings: Repowering our homes and businesses for our health and the environment, 6 April 2021, p. 16, accessible at https://frontiergroup.org/resources/electric-buildings-0/.


65 See note 38, pp. 6-7 and 10.


70 Ibid., p. 6.


72 See note 12.

73 Analysis done using data only from Washington Gas & Light’s 2021 annual report: Office of People’s Counsel, Office of People’s Counsel’s Response in Support of Maryland Energy Efficiency Advocates’ Motion to End Gas Appliance Incentives, 10 May 2022, p. 2, available at https://www.psc.state.md.us/search-results/?q=9648&x.x=17&x.y=14&search=all&search=case.


75 See, for example, Rewiring America, which finds that electric heat pumps reduce energy consumption and emissions relative to even the most efficient gas furnaces, and that a large portion of the emissions from gas appliances are from leaks, in addition to the combustion emissions: Sam Calisch, “Heat Pumps emit less than high efficiency gas appliances in nearly every household in America,” Rewiring America, accessed 1 September 2022, archived at http://web.archive.org/web/20220828033453/https://www.rewiringamerica.org/circuit-breakers-heat-pumps.


Ibid.

See note 22.

130 years: Susan Stevens Miller, Earthjustice, “Earthjustice support of HB 108: Public Utilities – Energy Efficiency and Conservation Programs – Energy Performance Targets and Low-Income Housing,” 8 February 2022, p. 2, archived at https://mgaleg.maryland.gov/cmte_testimony/2022/ecm/1dUgKWazz-KGDEOqZdO7p_73u-ND3E_5TE.pdf; 148 years: it took 13 years to serve 47,476 households, and there are 587,768 limited-income households in the state, leaving 540,292 households left to serve at the rate of 3,652 households per year.

See note 13.

See note 2, p. 13.

See note 14.

See note 2, p. 13.

In particular, the total number of EmPOWER specific applicants, their demographics, and a specific length of the application process were not available and, while the utilities may be able to calculate how much money is collected in total from EmPOWER surcharges on limited-income Marylanders, DHCD does not have that information and the utilities do not report it. See note 17.

See note 15.


See note 17.

See note 13.

See note 17.


99 See note 45, p. 66.

100 See note 17.

101 Ibid.

102 For most Marylanders, the program is accessed through DHCD: Maryland Department of Housing and Community Development, “EmPOWER Maryland Limited Income Energy Efficiency Program,” accessed 27 October 2022 at https://dhcd.maryland.gov/Residents/Pages/lieep/default.aspx; Baltimore city residents have to go through a separate process and application for the program, which goes by a different name (LIGHT) within the city: Baltimore City Department of Housing & Community Development, LIGHT Intake & Assessment Unit, accessed 27 October 2022 at https://dhcd.baltimorecity.gov/hho/light.


105 Ibid., p. 5.

106 Ibid., p. 6.

107 Maryland Office of People’s Counsel, Re: Case No. 9648 – OPC Comments to EmPOWER Future Programming Work Group on Cost Recovery and Performance Incentives, 14 February 2022, p. 3. In Maryland, utility returns (above the amortized current-year costs that they recover) are based on unamortized balances of program costs: see note 104, p. 7.


109 See note 104, pp. 7 and 9.

110 Ibid., p. 9.


112 Ibid., pp. 6 and 21.

113 See note 45, p. 31.

114 Ibid., p. 37.


124 Susan Stevens Miller, Earthjustice, Maryland Energy Efficiency Advocates Motion to End Energy Efficiency Funding of Gas Appliance Incentive Measures, 25 April 2022; Public Service Commission of Maryland, Order No. 90261: 2021-2023 EmPOWER Maryland Program, 15 June 2022, p. 18. Both documents available at available at https://www.psc.state.md.us/search-results/?q=9648&x.x=17&x.y=14&search=all&search=case.


127 See note 45, p. 66.

128 See note 103.


131 Maryland EmPOWER Future Programming Work Group, Future Programming Work Group Report, 15 April 2022, pp. 68-69, downloaded 9 November 2022 at https://www.psc.state.md.us/search-results/?q=9648&x.x=25&x.y=8&search=all&case.

132 VEIC for Maryland Office of People’s Counsel, OPC Comments on Q3-Q4 2021 EmPOWER Semi-Annual Reports, 25 April 2022, p. 13, accessed 1 November 2022 at https://www.psc.state.md.us/search-results/?q=9648&x.x=25&x.y=8&search=all&case.


134 See note 97, pp. 21-23, 27-28 and 30-33.