Equity in a clean energy economy requires rethinking low-income rates

By Irene Dimitry
January 18, 2023

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This report was written by guest author and renewable energy expert Irene Dimitry, who retired in 2020 as VP of Renewable Energy at DTE Energy. Irene is on the board of advisers for the E Source Utility Customer Research Consortium and is a steering committee member for the E Source Equity in a Clean Energy Economy Collaborative.

Key takeaways

- The transition to a clean energy economy requires investments that will create pressure to increase rates for all customers, including those already facing high energy burdens.
- Most low-income rates are designed as discounts to base residential rates, which constrains their reach and impact because funds are limited and subject to appropriations and approvals.
- Consider an alternative approach to low-income rate design by equitably sharing energy burdens across all residential customers.
- Implementing equitable rate designs will take leadership and perseverance, including the development of thorough, compelling, and legally supported rationale. But achieving more-equitable outcomes for low-income customers is necessary and worth the effort.

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Transitioning to a clean energy economy can harm disadvantaged utility customers

Although there's uncertainty around exactly how much it will cost to achieve worldwide net-zero emissions by 2050, we do know it will cost a substantial amount. Some organizations such as investment banking company BNY Mellon estimate $100 trillion (PDF) while others such as global management consulting firm McKinsey & Co. estimate $275 trillion.

Learn about E Source's collaborative working groups on energy equity and affordability

Interested in joining discussions with leading utilities about ensuring affordability and equity in the US transition to clean energy?

Contact Ben Nathan to learn more

It's clear the utility investments required to transition to a clean energy economy will create pressure to raise utility rates.

We've already seen substantial utility rate increases in 2022—up 14% according to the US Bureau of Labor Statistics. And according to LIHEAP Clearinghouse, an information resource for the Low Income Home Energy Assistance Program (LIHEAP), funding for utility bill assistance isn't keeping pace. Those already struggling to pay their energy bills can't afford for their electricity rates to further increase.

Transitioning to a clean energy economy without first changing low-income rate design will adversely affect many of your at-risk customers. The time has come to design solutions that more directly and fundamentally reduce energy burdens for these customers.

Implementing cost-shifting could reduce energy burdens for low-income customers

Reducing energy burdens has been a top goal for many utilities, especially as energy equity has entered the conversation in recent years. We've seen utilities implement various rate designs over the years to support low- and moderate-income (LMI) customers.

Typically, we see utilities implementing low-income rates as a discount to base residential rates, which can be in the form of a flat credit or a percentage discount. But this discount approach means utilities need to secure funding to cover the difference if they want to achieve full cost recovery. And such funding is inherently limited and often subject to annual appropriations and litigation in each rate case.

Why not flip the approach to designing low-income rates?

To offer LMI customers a different option, you could start by designing a low-income rate that achieves a targeted average energy burden for the collective group of your eligible customers.

What's energy burden?

Energy burden is determined by how much of a household's income it spends on energy. A household has a high energy burden if it spends more than 6% of its income on energy expenses.

For example, you could establish a flat LMI rate that represents 6% of the income threshold for the federal poverty rate. Once you've calculated that rate, along with an estimate of the revenues it would generate for the utility, you can design a base residential rate that will recover the remaining costs allocated to the residential rate class—this is cost-shifting. We don't recommend calculating unique rates for individual customers because that adds costs and creates complexity for your customers and your customer service personnel.

Under this approach, all non-LMI residential customers would share in covering low-income customers' energy burdens. And your programs to address affordability could focus on households in crisis and those that don't have enough funds to even cover what's usually considered an affordable energy burden.

We've seen utilities implementing pieces of this cost-shifting approach, but we haven't found evidence of a utility completely adopting our suggested low-income rate design.

Some utilities are cost-shifting but they're not designing rates to hit a targeted energy burden . And some utilities have implemented percentage of income payment plans (PDF), but they're calculating different rates for each customer rather than offering a base low-income rate.

How do you get buy-in for innovative low-income rates?

We've found that regulators and policy-makers are open to considering low-income rate innovations.

E Source held a national workshop Working Together for an Equitable Energy Future in August 2022 that included a regulator panel discussion on innovations in low-income rate design. Commissioner Odogwu Obi Linton of the Maryland Public Service Commission stated:

> Many types of cost-shifting solutions already occur, even within rate classes. They happen in a number of different ways. The real question is, "What is the justification for cost shifting in other circumstances?" Making this argument and presenting it in an appropriate way is critical for moving new solutions forward. Creativity comes in how you present it.

Regulators are open to new ideas that address affordability and reduce energy burdens. They're actively looking for utilities and stakeholders to submit concrete proposals. But these proposals need strong arguments that are relevant within the legal and regulatory frameworks for their jurisdiction.

Why aren't current solutions enough to fully address unaffordable energy burdens?

Current approaches aimed at improving energy affordability are helpful but insufficient—even if funding for bill assistance was keeping pace with inflation. The need is simply too great.

The US Energy Information Administration found that 27% of US households reported experiencing energy insecurity in 2020 (PDF). To pay their energy bills, 20% of US households reduced their food or medicine purchases or went without them altogether.

Only about 20% of households eligible for LIHEAP actually receive benefits in any given year

Being eligible for LIHEAP doesn't entitle a household to funds. In fact, only "about 20% of households that are qualified for LIHEAP receive benefits," according to the US Department of Health and Human Services LIHEAP FAQs web page.

Congress appropriates LIHEAP funding each year, so the number of households served in a given year depends on appropriations and how grantee organizations use their funding. When LIHEAP funds run out for the year, no additional benefits are available until Congress appropriates more funds.

At a state level, the Heat and Warmth Fund, a nonprofit organization, found that 13% of Michigan households meet the federal poverty criteria (PDF), meaning they're likely qualified for utility bill assistance. But almost twice as many Michigan households, 25%, fall in the ALICE (Asset Limited, Income Constrained, Employed) population. These households "are above the federal poverty level, excluding them from assistance programs, but they do not earn enough to afford basic household necessities."

Programs for bill assistance, energy efficiency, and weatherization certainly can—and do—help households improve energy affordability. But annual budget limits and participation barriers often constrain the impact of these programs. Customers without the time, resources, or capacity to enroll and participate in these programs continue to struggle. And even those who are eligible and apply for bill assistance may not receive help due to limited funds.

The energy equity framework that benefits customers, utilities, and underserved communities

Diversity, equity, and inclusion aren't new concepts for utilities, but there's a new energy equity movement sweeping the utility industry. In our white paper The energy equity framework that benefits customers, utilities, and underserved communities, we:

- Present our energy equity framework to help utilities identify creative and holistic solutions to achieve their goals
- Explain what's already working at utilities and what else utilities could try
- List practical, actionable solutions to help utilities advance energy equity

Redesigning low-income rates will take leadership and

perseverance, but it’s worth the effort

It won’t be easy to gain support for funding low-income rates through cost shifts to residential customers—or going further to also shift costs to business customers.

Those utilities brave enough to pursue this, or similar rate innovations, will need to seek input and support from key stakeholders before submitting regulatory filings. And they should prepare for a long campaign that may last several years, generate multiple rate cases, require concepts to be evaluated via pilot programs, and even trigger complex multiparty settlement negotiations.

Start here when talking about cost-shifting with regulators

Here’s a summary of our proposed cost-shifting approach. Use this to guide your conversation with regulators.

- Design a flat rate for all LMI customers set to an affordable energy burden for the average eligible customer. Use a flat rate, as opposed to customized rates, to reduce implementation costs and complexity.
- With this approach, there’s no cap on funding. The remaining revenue requirements that LMI customers would have covered are shifted to and collected from the remaining residential customers. There’s also no tracking or true-ups for the utility in the next rate case, and there’s no tracking or true-ups for individual customers if their income changes. But they must maintain eligibility to stay on the rate.
- By implementing this rate, your utility can focus its existing bill assistance and crisis programs on customers who can’t even pay for what’s typically considered an affordable energy burden.

Progress happens in steps. Some utilities have made progress toward affordable energy burdens by implementing percentage-of-income payment plans. Others have made progress in spreading energy burdens across customer classes through discounted rates.

These are steps in the right direction, but energy equity requires more. Given the looming impact of trillions in clean energy investments, the time has come for fundamentally rethinking low-income rate designs.

It’s always hard to change entrenched practices. But don’t let these challenges dissuade your utility from pursuing rate innovations to benefit LMI customers. Achieving more-equitable energy outcomes for your customers is always worth the extra effort.

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