

The 2023 Utility Energy Efficiency Scorecard

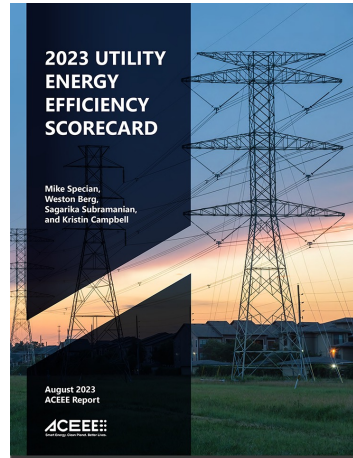
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Mike Specian
ACEEE, Utility & State Policy

In 2021, American utilities invested more than \$7.6 billion in energy efficiency in the form of things like incentives, rebates, and services. Utilities have enormous customer bases and the ability to scale solutions, and as a result the utility sector is perhaps the best positioned of any sector to deliver energy savings to Americans.

Utility Scorecard evaluates and ranks the largest U.S. utilities on their policy and program efforts related to energy efficiency



<https://www.aceee.org/research-report/u2304>

And that's why I'm so excited that the [*2023 Utility Energy Efficiency Scorecard*](#) is being released today because now we can share with all of you how well utilities have been able to do just that. As the title of this slide indicates, this report evaluates and ranks the largest U.S. electric utilities on their policy and program efforts related to energy efficiency.

Utility Scorecard evaluated the 53 largest U.S. utilities

- AEP Ohio
- AEP Texas Central
- Alabama Power
- Ameren Illinois
- Ameren Missouri
- Arizona Public Service
- Baltimore Gas & Electric
- CenterPoint Energy (TX)
- CPS (San Antonio, TX)
- ComEd (IL)
- ConEd (NY)
- Consumers Energy (MI)
- Dominion Virginia
- Dominion South Carolina
- DTE (MI)
- Duke North Carolina
- Duke South Carolina
- Duke Florida
- Duke Indiana
- Duke Ohio
- Duke Progress (NC)
- Entergy Arkansas
- Entergy Louisiana
- Entergy Texas
- Eversource CT
- Eversource MA
- Florida Power & Light
- Georgia Power
- Jersey Central Power & Light
- Long Island Power Authority (NY)
- Los Angeles Department of Water & Power
- National Grid Massachusetts
- MidAmerican Energy (IA)
- Nevada Power
- National Grid New York
- Ohio Edison
- Oklahoma Gas & Electric
- Oncor (TX)
- Pacific Gas & Electric (CA)
- PacifiCorp (UT)
- PECO (PA)
- Portland General Electric
- PPL (PA)
- Public Service Gas & Electric (NJ)
- Puget Sound Energy (WA)
- Salt River Project (AZ)
- San Diego Gas & Electric
- Southern California Edison
- Tampa Electric
- We Energies (WI)
- West Penn Power (PA)
- Xcel Colorado
- Xcel Minnesota



And in this report, which is the third triennial edition of Utility Scorecard, we evaluated 53 utilities that serve approximately 79 million residential customers, representing approximately 60% of all U.S. households. These utilities operate across 31 different state and regulatory environments. And these are environments that strongly influence planning, administration, and implementation of energy efficiency programs. As a result, the evaluation we are about to share reflects the totality of actions and conditions that allow energy efficiency to flourish in a service territory, including those actions that result from legislative or regulatory processes that may or may not reside within a utility's sphere of influence. Consequently, the scores and rankings that utilities earn on this *Utility Scorecard* reflect not only the utilities themselves, but also the legislative and regulatory environments within which they operate. This is also the reason we choose to focus on state-jurisdictional utilities rather than their parent companies, which can operate multiple utilities across multiple states.

Utility Scorecard Goals

- Evaluate and quantify electric utilities' energy efficiency accomplishments;
- Spotlight exemplary policies, programs, and activities that can serve as models for efficiency-oriented utilities;
- Rank and compare utilities to foster accountability and constructive competition; and
- Drive ambitious, equitable clean energy actions.



Now that you understand who we are evaluating, let me share why we do it. The goals of this *Utility Scorecard* are to:

- evaluate and quantify electric utilities' energy efficiency accomplishments;
- spotlight exemplary policies, programs, and activities that can serve as models for efficiency-oriented utilities;
- rank and compare utilities to foster accountability and constructive competition; and
- drive ambitious, equitable clean energy actions.

Utility Scorecard evaluates utilities along 27 action categories

- Performance Group: 54 points (8 action categories)
- Programs Group: 20 points (5 action categories)
- Enabling Group: 26 points (14 action categories, including 1 unscored)



We evaluate these utilities along 27 dimensions, or *action categories*. [A classification given to a set of policies, programs, actions, or accomplishments related to a specific aspect of utility energy efficiency activities.] We quantify their achievements using a scoring system that allocates up to 100 points across three groups:

- Performance Group: 54 points (8 action categories)
- Programs Group: 20 points (5 action categories)
- Enabling Group: 26 points (14 action categories, including 1 unscored)

The number of points associated with each of the 27 action categories is scaled to represent its relative importance in the utility energy efficiency ecosystem.

Action Categories: Performance Group

Action Category	Description	Points
Net incremental electric energy savings	Net electricity savings realized in 2021 (as percentage of total sales)	16
Spending	Total 2021 energy efficiency (EE) spending as a percentage of revenue (includes performance incentives, excludes dedicated natural gas efficiency spending)	11
Peak demand reduction	Percentage of total peak demand reduction from electric EE measures installed in 2021 (does not include demand response)	7
Net lifetime energy savings	Net lifetime electricity savings from measures installed in 2021 as a percentage of total retail sales	7
Low-income spending	Low-income spending as percentage of total (i.e., residential and commercial & industrial) EE spending	4
Low-income savings	Net incremental low-income energy savings realized in 2021 per residential customer (kWh)	5
Achievement of savings target	Percentage of 2021 MWh savings target achieved	2



Let me give you a run down of the action categories we used to evaluate utility efficiency program performance.

- Utilities could earn up to 16 points for the net incremental electricity savings. In other words, these are the energy savings achieved in the year 2021 that are directly attributable to utility efficiency programs installed that year.
- Utilities could earn up to 11 points based on the percentage of their annual revenue they invested in efficiency programs
- Up to 7 points could be earned based on the percentage of peak demand reduced by efficiency measures
- Up to 7 points for the total anticipated lifetime energy savings of efficiency measures installed in 2021

Then we have our first two energy equity-related categories:

- How much did the utility spend on low-income energy efficiency programs in 2021 and
- How much did those programs save

- And we also award a couple points based on how well the utility achieved its energy savings targets.

Action Categories: Programs Group

Action Category	Description	Distinct number of programs required to earn maximum pints	Points
Residential program comprehensiveness	Number of residential EE programs offered	13	3
Commercial and industrial program comprehensiveness	Number of commercial and industrial EE programs offered	12	3
Emerging program areas	Number of cutting-edge EE programs or pilots offered	12	6
Low-income program implementation	Number of low-income EE programs offered	4	3
Electric vehicles	Number of transportation electrification programs offered	4 plus EV rates and low-income incentives	5

Next, utilities could earn up to 20 points based on the number and diversity of efficiency programs they offer. This table summarizes the categories and how many different program types a utility needs to offer to earn maximum points. A full listing of qualifying program types is available the report.

Action Categories: Enabling Group

Action Category	Description	Points
Utility business model	Status of revenue decoupling, lost-revenue adjustment mechanism, and performance incentive mechanisms	4
Resource planning	Consideration of EE in the utility resource planning process as either a load forecast reduction or alongside supply-side resources	2
Energy savings targets	2018–2020 net incremental energy savings targets as a percentage of 2018 sales	2
Data access	Providing customers access to individual meter or multifamily building energy data	2
Evaluation, measurement, and verification	Independence of EM&V and the calculation of net savings	3
Customer charge	Level of residential fixed customer charge in the primary rate option	1
Time-of-use rate	Availability of opt-in or default TOU rate for residential customers	2



Our largest set of action categories falls within what we call our Enabling Group and is collectively worth up to 26 points. Here, utilities can earn points for:

- Having a strong **utility business model** that removes the incentive for high-volume electricity sales, compensates the utility for lost revenue due to efficiency, and incentivizes the utility to hit savings targets
- Utilities can earn points for ensuring that energy efficiency is accounted for during **resource planning** processes
- ...for having **energy savings targets** in place
- ...for providing customers access to their **energy consumption data**
- ...for having their efficiency programs independently **evaluated**
- ...for keeping monthly **fixed charges** on customer bills low
- ...and for offering **time-of-use rates** for residential customers

Action Categories: Enabling Group

Action Category	Description	Points
Community engagement	Efforts to solicit and incorporate feedback from potential EE program participants	2
Energy affordability	Goals for reducing energy burden and tracking targeted solutions that impact energy-burdened customers	2
Financing	Facilitation of financing solutions to help customers pay for EE upgrades	2
Language access	Actions taken to reduce language barriers to EE program participation	1
Workforce development	Actions taken to support a diverse and equitable EE workforce	2
Utility shutoff	Steps taken to direct customers at risk of utility disconnection toward EE programs	1

In this edition of *Utility Scorecard* the most significant change we made was our increased emphasis on energy equity. A couple years ago ACEEE launched the Leading with Equity Initiative, which was committed (in part) to embedding more equity considerations into the definition of a successful utility. We collaborated regularly with community-based organizations (CBOs) and energy equity advocates to ensure their perspectives and priorities were integrated into this report. One result of that engagement was the introduction of six new equity-related action categories. They are:

- **Community engagement**, which assesses whether utilities solicited input from the historically under-resourced communities that low-income efficiency programs are designed to serve
- **Energy affordability**, which looks at utility efforts to reduce energy burden for customers spending a disproportionately large share of their income on energy costs
- **Financing**, which assesses how well utilities facilitate solutions to help customers pay for efficiency upgrades
- **Language access**, which assesses the actions utilities have taken to remove language-based barriers to efficiency program participation

- **Workforce development**, which looks at a variety of actions utilities can take to bolster a diverse and robust efficiency workforce, and
- **Utility shutoff**, which looks at whether utilities direct customers at risk of utility disconnection for nonpayment toward efficiency programs that will lower their bills month over month.

Action Categories: Decarbonization

Action Category	Description	Points
Non-electric savings	Capturing data related to electrification and collateral non-electric fuel savings resulting from electric EE programs	2
Greenhouse gas targets	Establishing explicit GHG targets for EE programs to achieve	0



A second change we made to our action categories was the addition of two new categories to capture early progress in decarbonizing our energy system through efficiency:

- The first awards points for utilities that track energy savings that result from switching from fossil-based appliances to electric appliances (or in other words, their electrification savings)
- ...and the second, which is unscored, looks at whether utilities have established explicit greenhouse gas reduction targets for their efficiency programs.

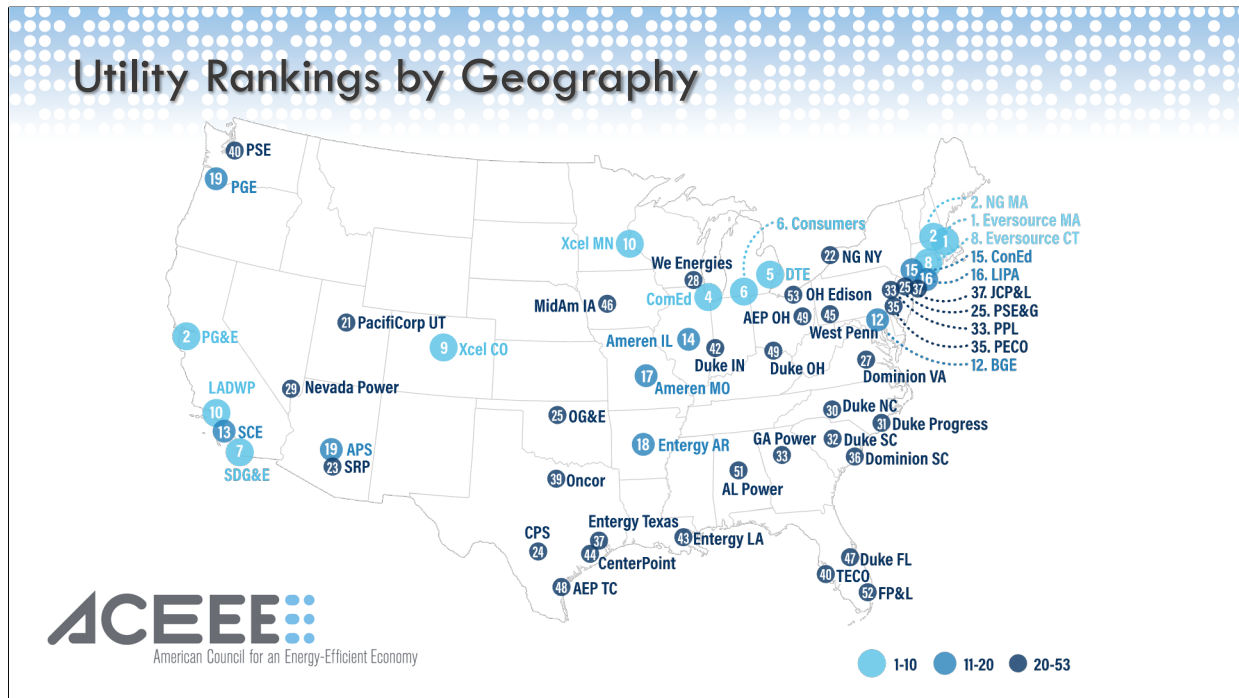
Top 10 and Bottom 10 Utilities

Top Utilities			Bottom Utilities		
Rank	Utility	Total Score	Rank	Utility	Total Score
1	Eversource Massachusetts (MA)	85	44	CenterPoint (TX)	16
2	Pacific Gas & Electric (CA)	80.5	45	West Penn (PA)	15.5
2	National Grid Massachusetts (MA)	80.5	46	MidAmerican (IA)	15
4	Commonwealth Edison (IL)	75.5	47	Duke Florida	12.5
5	DTE (MI)	73.5	48	AEP Texas Central	11.5
6	Consumers (MI)	68	49	AEP Ohio	9
7	San Diego Gas & Electric (CA)	62	49	Duke Ohio	9
8	Eversource Connecticut (CT)	61	51	Alabama Power	5
9	Xcel Colorado (CO)	58.5	52	Florida Power & Light	3
10	Los Angeles Department of Water and Power (CA)	55.5	53	Ohio Edison	2.5

Here are some results. This slide contains a scoring breakdown of our ten highest-scoring utilities on the left, and our ten lowest-scoring utilities on the right. You'll notice that the top 10 performers are spread across seven states, including two utilities from Massachusetts, two from Michigan and three from California.

Congratulations to Eversource Massachusetts who earned 85% of the available points and the top spot in our rankings for the third consecutive edition. In contrast, among our bottom 10 utilities are 4 from the Midwest, 3 from the Southeast, and 2 from Texas. I want to point out for context that in 2018 and 2019, respectively, Iowa and Ohio passed legislation greatly limiting energy efficiency programs. Utilities in those states (i.e., MidAmerican Energy Iowa, AEP OH, Duke OH, and OH Edison) have seen major drops in their *Utility Scorecard* rankings as a result. This just demonstrates how important supportive legislative and regulatory environments actually are.

Utility Rankings by Geography



As you take a look at the full set of utility rankings by geography, I want to tell you about a utility efficiency success story. If we go back 15 years, Michigan utilities were providing no efficiency services to their customers. In 2008 Michigan passed a law requiring its electric utilities to establish efficiency programs and to achieve energy savings targets. The Michigan utilities not only hit those targets, but exceeded them, year over year, such that we are now in a situation where Consumers Energy and DTE are two of the top performing utilities in the country when it comes to energy efficiency. So it absolutely can be done.

Another state where we've seen a big positive change is in Virginia. In 2020, Virginia established an energy efficiency resource standard (EERS) through the Virginia Clean Economy Act (VCEA), requiring Dominion VA to achieve 5% energy savings through energy efficiency by 2025 (among other provisions). As a result, in this edition of *Utility Scorecard* Dominion Virginia is our most improved utility, rising from #50 (near the very bottom of the list) to #27. Now, Dominion still has a long way to go, especially when it comes to program performance, and the key players in Virginia will need to stay committed to this trajectory, which is at risk right now. In just a few minutes Chelsea Harnish, who's been in the trenches in Virginia will share more details about the really important developments happening down there.

Utility Scorecard 2023 Key Takeaways

	Spending (% of revenue)	Savings (% of sales)	Peak Demand (% of total peak demand)	Low-income Spending (% of total EE spending)	Low-income Savings (per residential customer)
2018	2.58%	1.03%	0.81%	10.7%	8.4 kWh
2021	2.23%	0.91%	0.71%	12.8%	9.2 kWh
Change	Absolute spending down 4.9%	Overall savings down 5.4%	down 12%	Absolute spending up 17%	up 9.5%



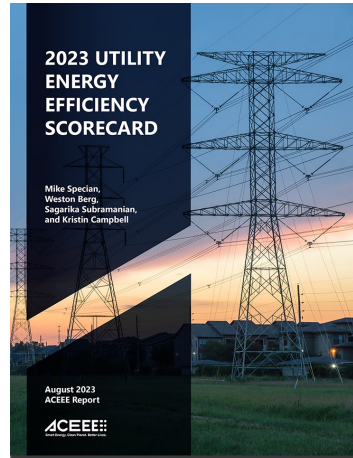
Before wrapping up, I'd like to share just a few more key takeaways from *Utility Scorecard*. Let's start with some spending and savings trends. Three years ago, we reported that utilities on average were spending 2.58% of their revenue on efficiency programs. Three years later efficiency spending in absolute terms has dropped 4.9% to an average of 2.23%. As you might expect, this has negatively impacted savings. In 2018 utilities were saving an average of 1.03% of their annual sales through efficiency. Three years later overall savings in absolute terms has dropped 5.4% to an average of 0.91%. Likewise, energy efficiency went from shaving 0.81% off peak demand to 0.71%. These are trends that are absolutely moving in the wrong direction. And even if we remove from consideration the three Ohio utilities that had their efficiency programs canceled, efficiency spending is still down over 2% and efficiency savings are about the same as they were three years ago.

We do see some positive developments on low-income programs, however, as utilities have increased low-income spending 17% since the last edition, going from 10.7% of their efficiency program budgets on average to 12.8%. This has translated to an increase in low-income savings per residential customer of 9.5%. This is certainly a trend in the right direction, but those spending and savings levels we would argue are still too low. In principle, if X% of a utility's customers are low-income, they should

receive at least X% of the efficiency program benefits. But we know that low-income programs typically need more spending per customer to achieve the same benefit, about 12% of Americans are below the federal poverty line. The percentage of low-income Americans as defined by many utility efficiency programs is actually higher than that 12%, so if you combine all that together we know that this average level of low-income spending, while an improvement, is almost certainly still too low from an equity perspective.

The final key takeaway I'll share has to do with greenhouse gas reductions. While many states and 28 of the 53 utilities we scored have established some form of carbon reduction targets, those targets have yet to work their way into energy efficiency programs for the vast majority of utilities we evaluated. In fact, only two—National Grid Massachusetts and Eversource Massachusetts—had explicitly incorporated GHG reduction goals into their energy efficiency programs. In fairness to a state like New York, there are other ways to assess the decarbonization benefits of energy efficiency programs, but only about 10% of utilities we evaluated are even tracking the savings achieved through electrification initiatives. And data tracking is a relatively simple first step towards larger decarbonization initiatives.

The full Utility Scorecard report contains much more information



<https://www.aceee.org/research-report/u2304>

I'll stop here, but I want to remind everyone that Utility Scorecard has a lot more content that I'm sharing here right now, so if you'd like to see how your favorite utility performed within these 27 action categories, please download the report. You'll be able to read our descriptions of utility best practices, see our scoring metrics, see more granular data, see examples of exemplary program models, and access something like 40 pages of references.

Mike Specian
mspecian@aceee.org

ACEEE
American Council for an Energy Efficient Economy

If you have any questions or would like to discuss more off line, here's my contact information.



Energy Efficiency Progress in Virginia

Chelsea Harnish
Executive Director
Virginia Energy Efficiency Council

August 24, 2023



Virginia Energy Efficiency Council

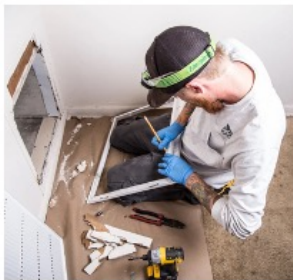
The VAEEC is a broad coalition whose goal is to ensure that energy efficiency is recognized as an integral part of Virginia's economy and clean energy future. We engage our members to identify barriers to, and opportunities for energy efficiency advancement, and to develop a strong industry voice before decision-makers.



I am the Executive Director of the [Virginia Energy Efficiency Council](#) (VAEEC). We are a broad coalition of entities in Virginia who work to advance energy efficiency here in the state. We work with our members to identify barriers and opportunities for energy efficiency advancement throughout the commonwealth.

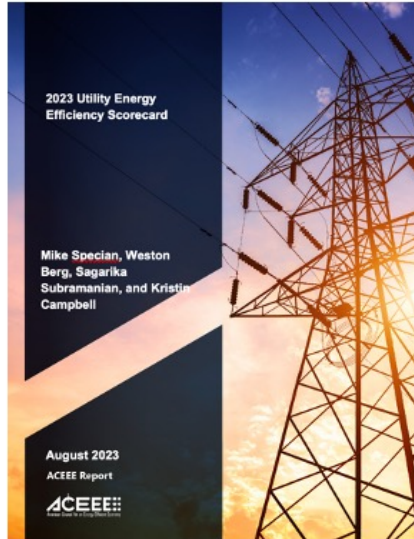
VAEEC Focus Areas

- Advocating for effective utility EE programs
- Supporting weatherization and other low-income initiatives
- Advancing EE in the statewide building code
- Providing support and resources to state agencies and local governments



Some of our focus areas are on advancing effective utility energy efficiency programs. But we also work to support weatherization and other low-income initiatives here in the state. We work to advanced energy efficiency in the statewide building code and provide support and resources to our state and local governments.

Why Virginia?

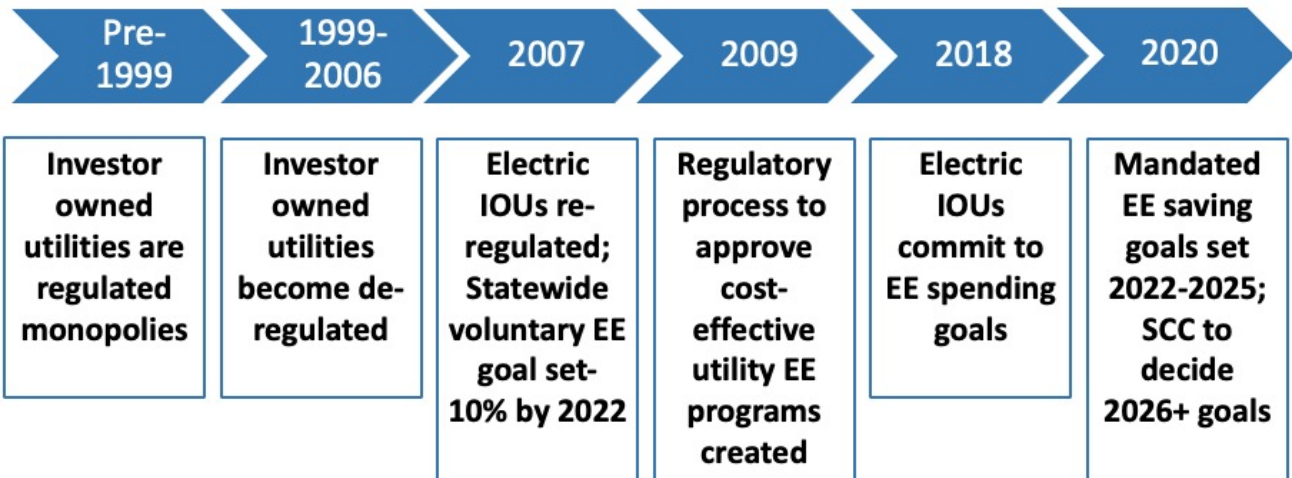


“Dominion Virginia was the most improved utility in both absolute and relative terms, jumping from 50th place in the 2020 edition to 27th place, driven by expanded programs following the passage of the Virginia Clean Economy Act.”



So, why Virginia? In the 2023 Utility Scorecard, Dominion Virginia—our largest investor-owned utility—was named the most improved utility. They went from 50th place in 2020 all the way to 27th place.

Virginia Utility Regulation Timeline



Before we discuss why, I want to walk back in time to the Virginia utility regulatory timeline. Like most southeastern states, Virginia utilities are regulated monopolies (except for a brief, eight-year period from the 1990s to early 2000s when they became deregulated). They were re-regulated in 2007. In 2009 the process was established to determine cost-effectiveness that could be decided at the State Corporation Commission, which is our public utility commission. Energy efficiency policy was not touched again for nearly a decade until the [Grid Transformation and Security Act of 2018](#) and the [Virginia Clean Economy Act of 2020](#).

Grid Transformation and Security Act (2018)

- Allowed Virginia's two investor-owned electric utilities (IOU) to invest excess profits in renewable generation and grid modernization
- Commits IOUs to propose over \$1 billion in energy efficiency investments through 2028
- Increased shareholder investments in Dominion Energy's low-income energy efficiency program to \$13 million per year through 2028
- Established a stakeholder process to provide feedback on each utility's energy efficiency portfolio



The biggest goal of the [Grid Transformation and Security Act of 2018](#) was to allow our two investor-owned utilities, Dominion Energy and Appalachian Power Company, to invest excess profits into renewable generation and grid modernization updates. In addition to that, advocates really pushed for these two IOUs to spend more money on energy-efficiency programs. The IOUs committed to proposing over \$1 billion combined in energy efficiency investments through 2028. It also increased shareholder investments in Dominion Energy's low-income energy efficiency program, which is called [EnergyShare](#), to \$13 million all the way through 2028. It was also a way for us advocates to establish a stakeholder process to provide feedback on each of the utilities' energy efficiency portfolios. We wanted to model this after the Arkansas stakeholder group, the People Working Collaborative Initiative, where all of the utilities come to the table with all the stakeholders. Instead, we have two separate stakeholder processes for the two investor-owned utilities. That has been in place since 2018.

The reason this language says they "committed to proposing" is in 2009 when the rules around cost-effectiveness were set in place, our State Corporation Commission relied heavily on the ratepayer impact (RIM) test. As many of you know, that is really not the best test to measure cost-effectiveness or the efficacy of an energy efficiency program. With the Grid Transformation and Security Act we wanted to remove that barrier to see more energy efficiency programs being approved. With this law, the

language was changed to say that any energy efficiency program that passed three of four cost-benefit tests was in the public interest, which meant it had to be approved by the SCC.

Virginia Clean Economy Act (2020)

- Requires Virginia's two investor-owned electric utilities to become carbon-free by 2045 (Dominion) and 2050 (Appalachian Power Co)
- Establishes mandated Renewable Portfolio Standard with set asides for offshore wind, residential solar, and battery storage
- Establishes mandated Energy Efficiency Resource Standard
- Prioritizes energy efficiency over new fossil-fuel generation
- Protects low-income ratepayers from higher costs of clean energy-particularly offshore wind



The overall purpose of the Virginia Clean Economy Act, which passed two years later, was to require Virginia's two investor-owned utilities to be carbon-free by 2050. This law also established a mandatory renewable portfolio standard as well as an energy efficiency resource standard. It also prioritizes energy efficiency over new fossil fuel generation by stating that the utilities cannot build any new fossil fuel generation unless their energy efficiency goals have been met. It also protects low-income ratepayers from the higher costs of the clean energy transition, particularly as it relates to offshore wind.

EERS

Appalachian Power Company

Year	Annual Savings
2022	0.5%
2023	1%
2024	1.5%
2025	2%

Dominion Energy

Year	Annual Savings
2022	1.25%
2023	2.5%
2024	3.75%
2025	5%

EERS based on 2019 electric retail sales. Savings calculated as 'Total Annual'

Beyond 2025, the State Corporation Commission will set the goals in three-year increments.



Dominion Energy has a goal of 5% annual savings by 2025. Appalachian Power Company has a 2% goal by 2025. These two investor-owned utilities and their territories in Virginia are vastly different. They are almost night and day, and are generally treated differently in statute. The EERS was based on 2019 electric retail sales. It is calculated as "total annual", which means we are only looking at all savings from all measures that have estimated savings in a single given year, so it is not cumulative. Beyond 2025 the State Corporation Commission will set the goals in three-year increments.

EERS Progress: Three Years Later

- VA State Corporation Commission (SCC) is approving EE programs
- Dominion developed a Long Term Plan to meet its EERS goals
- APCo is meeting its targets (unverified)
- Dominion met its 2022 target (unverified)
- SCC is expecting greater efficacy of the EE stakeholder process
- Utility low-income programs utilize weatherization network



So where are we? What is the progress three years later? The Virginia Clean Economy Act and Grid Transformation and Security Act have helped propel Dominion into the middle of the pack. They started at the very bottom and have become the most improved because of these policies that have been passed. In addition, the State Corporation Commission is approving energy efficiency programs. Dominion has also developed a long-term plan that was proposed in December 2021 to identify their pathway of how they are going to meet their energy efficiency goals. The Appalachian Power Company is currently meeting all of its targets, and Dominion has met its 2022 target. These are both unverified because the first compliance hearing will not take place until next year.

The SCC is also putting greater responsibility and expecting greater efficacy from the energy efficiency stakeholder process. Additionally, utility low-income programs utilize the weatherization network. That is one thing we do really well here in Virginia. All low-income energy efficiency programs are provided for by the weatherization network, whether it is the federal weatherization program, any utility program, gas or electric, and our participation in the Regional Greenhouse Gas Initiative (RGGI). Fifty percent of those dollars go to low-income energy efficiency programming. And the weatherization providers also use that funding. That really helps them braid funding and identify what is the best funding source(s) for that individual home. It is almost like a customized program where they can identify the

best way to maximize savings for that individual customer.

EERS Challenges: Three Years Later

2023-2025 Goals **not being met**

- Dominion's Long Term Plan implementation too slow
- Dominion's projected vs. actual program savings not aligned
- Cost-effectiveness test requirements prevent approval of robust programs

2026 and beyond

- Goals beyond 2025 not prescribed in legislation
- Dominion proposes building **seven** new natural gas plants in latest IRP



However, challenges remain three years later. Dominion will not be meeting the 2023–2025 goals. They are only meeting the 2022 goal. There is controversy over how the goal should be defined (e.g., net or gross). They would be met one way but not the other way in 2023. For 2024 and 2025, those goals would not be met either way.

But why? And what are some of the reasons for that? Dominion does have a long-term plan put out in December 2021, but the implementation of it has been slow. Some progress has been made, but advocates would like to have seen a faster ramp up.

Dominion's projected savings versus actual program savings are not aligned. The SCC staff analyzed Dominion's latest EM&V report, which came out in the spring. In 2021, the residential programs only met 45% of the participation goal and only 57% of their estimated savings goals. For the non-residential programs, they only met 43% of the participation goal and 32% of the estimated savings goal. The SCC staff also identified that there is an extensive 1180 GWh savings gap Dominion needs to close to meet its 2025 EERS goal. That is the issue we are seeing now. The goals for 2026 and beyond are not prescribed in legislation.

One of the most concerning issues right now is that we have only had one

commissioner on the SCC's normal three-seat commission for over a year now. Commissioners are elected by the General Assembly, but we are in an election year and those two appointments have been caught up in political back-and-forth. We hope they will be seated when the General Assembly reconvenes in January, but we do not know for sure.

Also, Dominion has proposed building seven new natural gas plants in its latest IRP, which they applied for earlier this year. Again, the Virginia Clean Economy Act says they cannot apply for new natural gas or any other fossil fuel plants unless they are meeting their energy efficiency goals or if there is a concern with reliability. So is the company proposing these new natural gas plants as a reliability issue, or are they going to make every attempt to pass the 2024 and 2025 goals? We will just have to wait and see.

Opportunities & Lessons Learned

Opportunities

- “Low-hanging fruit” solutions
- Re-evaluating cost-effectiveness tests
- Braiding BIL funds and IRA rebates with utility program dollars

Lessons Learned

- Policy makes progress
- Data-driven goal setting
- Aligning cost-benefit tests with policy goals
- Diverse stakeholder engagement is key!
- Utilizing weatherization network for low-income programs



But all is not lost. Dominion still has opportunities to meet those goals. There are low-hanging fruit solutions outlined in Dominion’s long-term plan. Right now, they are looking at branding their efficiency programs for the first time, which is what most other utilities have done across the country. They also put out surveys to understand their customer awareness of energy efficiency programs, which they found is lower than some of their peer utilities. If Dominion focuses on participation, program awareness, and branding and other marketing, they can continue to bring those numbers up. Increased participation means increased energy savings, which just continues to grow and help them meet those goals.

The other issue is with re-evaluating the cost-effectiveness test. In 2018 we were trying to solve one issue, the overreliance on the RIM test, but now we have created another one. We are the only state in the country where the utility regulatory process relies on three of four cost-effectiveness tests. As many of you know, there is only one cost-effectiveness test in most states.

So advocates, the utilities, and SCC staff have been in conversations to identify what that one test could look like. It is important that it align with our climate and policy goals, which would meet the principles that the National Standard Practice Manual (NSPM) puts forward.

Additionally, as with every other utility across the state in the country, braiding the BIL and IRA funds will be critical. We have been talking a lot with utilities and our state energy office about ensuring that if the customer has gone to a contractor and is interested in the federal rebates that they are aware of the utility programs that are available to them and vice versa. If they had gone to the Dominion site and, say, signed up for a home energy assessment, that contractor while in their home will also make sure that they are aware of the federal funding. That will take a lot of behind-the-scenes effort and a lot of education. But we have been in talks with the utilities and our state energy office and everyone is in agreement that that is necessary to move forward.

Policy absolutely drives progress. Dominion Virginia would not have jumped from 50th to 27th in this Utility Scorecard if it had not been for the Virginia Clean Economy Act. That has absolutely been a driver for the success we have seen in the state. It is also important to use data-driven goalsetting. You do not want to arbitrarily set a goal that does not make sense. Thankfully, ACEEE's Utilities Program team really helped us back in 2020 identify the most appropriate goals for the utilities in Virginia.

It is also important that you align cost-benefit tests with policy goals, again much as outlined in the NSPM. Diverse stakeholder engagement is key. A lot of the advancement we have seen has been and will continue to be driven by stakeholders. The SCC required in its latest final order for Dominion to work out some of the issues with the stakeholders, then report back to the commission on how those conversations are going. This is the first time they have ever required that. It just goes to show that they are starting to realize the potential and responsibility that the stakeholder group should have. Finally, utilizing the weatherization network for low-income programs. We do that really well and would love to see other states follow suit.

Virginia is at a crossroads



Mike said Virginia is at risk. I like to think of it as at a crossroads. We could either go one way and continue to climb to the top of the ACEEE Utility Scorecard, or we could unfortunately fall to the bottom of the Scorecard. Either option is still viable. It is just going to take a lot of work and collaboration among stakeholders and the utilities to make it happen.

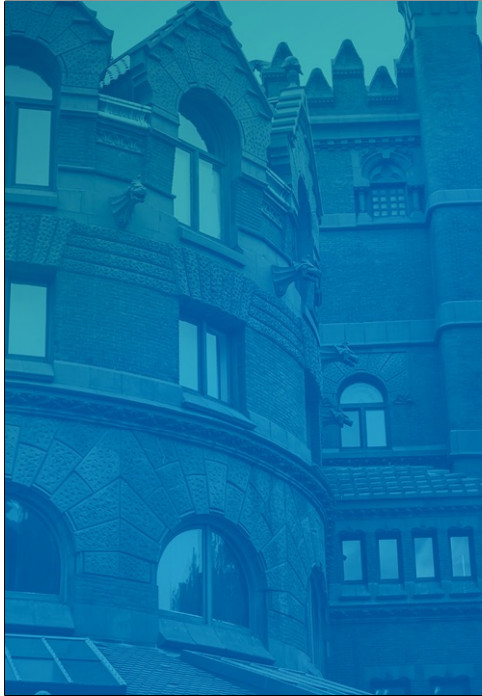
Contact Information

Chelsea Harnish, Executive Director
VAEEC

chelsea@vaeec.org

www.vaeec.org

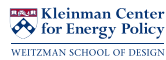




Remarks on 2023 ACEEE Utility Energy Efficiency Scorecard

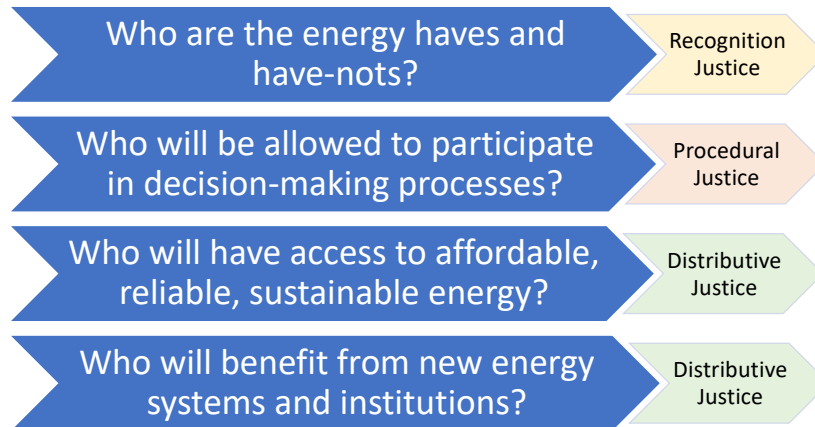
Sanya Carley

Presidential Distinguished Professor of
Energy Policy and City Planning
University of Pennsylvania

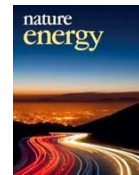


I was asked to think deeply about the equity metrics and provide commentary on this Utility Scorecard. In doing so, I would like to first present a little background as to why energy efficiency is so important from an equity perspective, and specifically from a perspective of energy burdens and energy poverty.

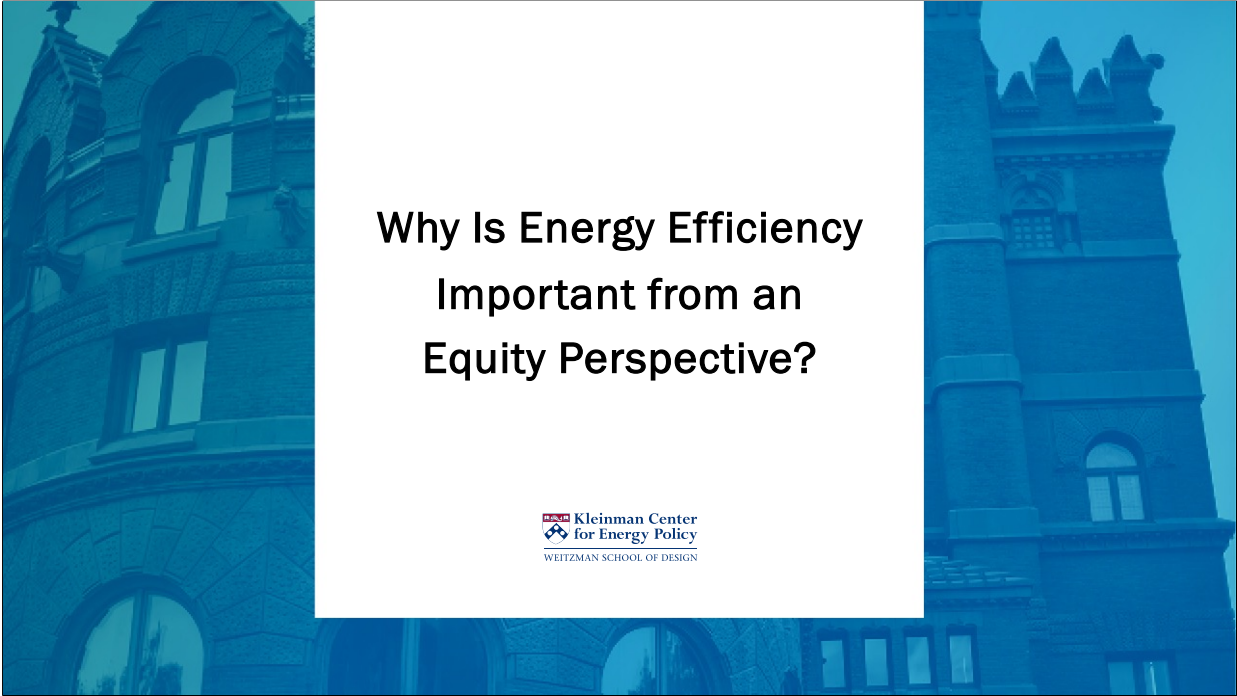
Energy Justice



Source: Carley, S., Konisky, D.M. 2020. The justice and equity implications for the clean energy transition. *Nature Energy* 5.



Here I'll start through the framework of energy justice. This framework asks fundamental questions that align with topics of distributive justice, procedural justice, and recognition justice. These include questions such as what is the distribution of benefits and burdens of our energy systems, who has access to the benefits and who does not, who has access to clean affordable reliable sustainable energy and who does not. It includes questions about who is allowed to participate in decision-making processes, who has a voice, and who is allowed to lead. It also includes fundamental questions about who are the energy haves and have nots of both our current energy systems, our future energy systems, and fundamentally our historic energy systems.

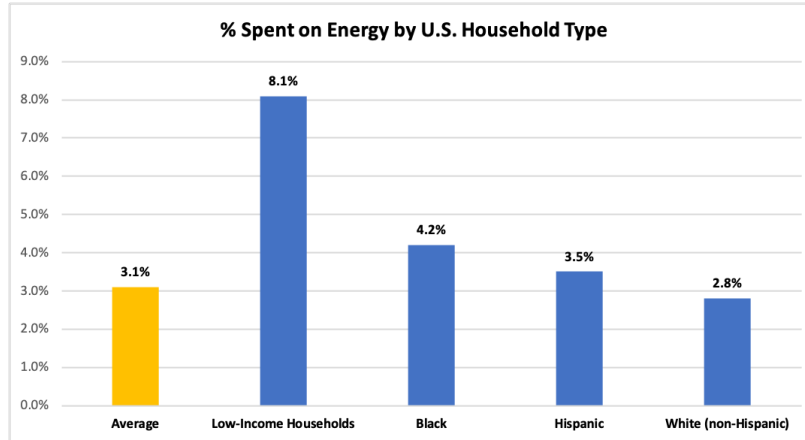


Why Is Energy Efficiency Important from an Equity Perspective?

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Here is a framework. Allow me to present a really important dimension of energy equity—energy burden and energy poverty within the United States.

Energy Burdens in the United States



Source: Drehobl, A., Ross, L., Ayala, R. 2020. How high are household energy burdens? ACEEE Report



32

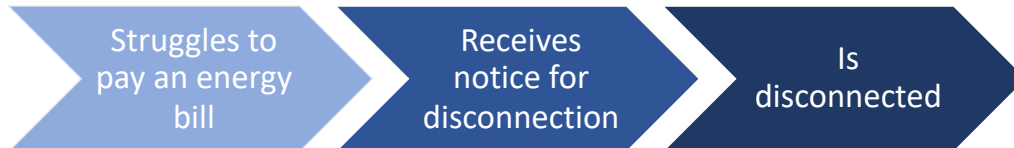
Here I've presented a [graph produced by ACEEE](#), who's done phenomenal work within this space of tracking energy burden, which is the percentage of one's income that they spend on energy. You can see in this graph that the average American spends about 3% of their income on energy but for certain social demographic groups as well as with certain regions of the country (which is not shown in this map) these burdens are much higher, including particularly for low-income households as well as households of color.

What does the energy burden measure miss?

- Those who do not have AC or heating units
- Those who do not use or heavily ration their AC/heat to save money
See: Cong, S., Nock, D., Qiu, Y.L., Xing, B. Unveiling hidden energy poverty using the energy equity gap. *Nature Communications* 13, 2456 (2022).
- Those who are disconnected
- Those who use dangerous coping strategies to avoid high bills or disconnection

I argue in my work that the energy burden metric is very important. It's a metric that is quite useful in targeting funds, investment, and other support mechanisms. But the energy burden measure is incomplete in fully directing energy efficiency efforts as well as a variety of efforts. Energy burden does not necessarily account for those who do not have air conditioning or heating units, for example. Or those who might have to very heavily ration their air conditioning and heating in order to save money on energy bills or in order to avoid being disconnected from their service providers. It does not include those who are disconnected and does not include those who might use very dangerous financial or behavioral strategies to avoid high bills and being disconnected.

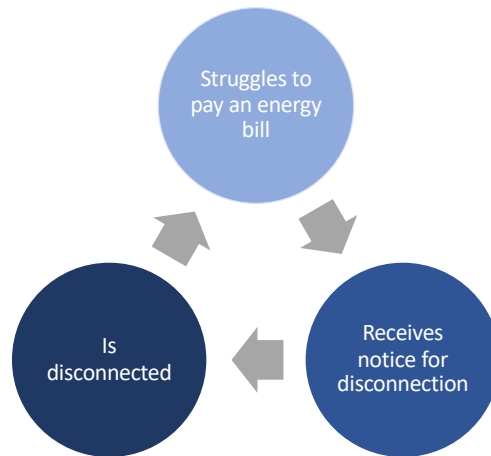
Energy Poverty & Insecurity



34

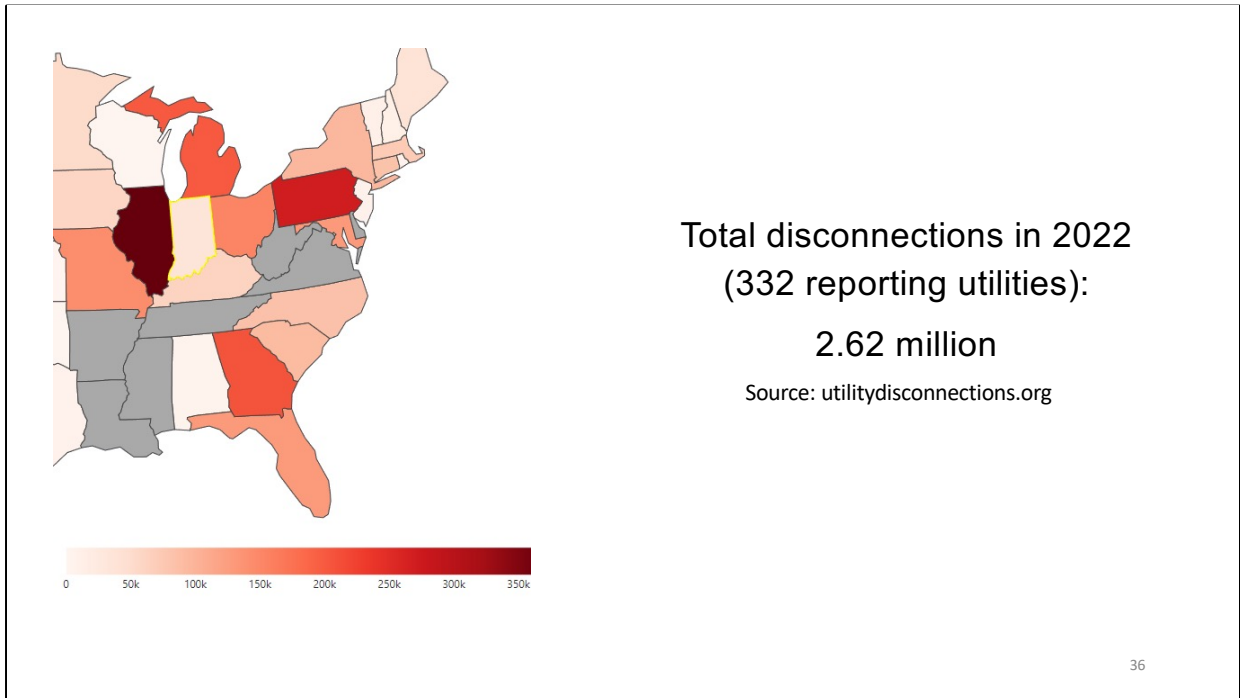
In my research I try to push our collective community into thinking deeply about these issues and thinking about other metrics that we can use. In some of our work we've adopted ideas from the energy, security, and poverty literature where we can classify households that are unable to provide sufficient energy resources for their family with three different metrics: 1) struggling with paying energy bills, 2) receiving a notice for disconnection, and 3) being disconnected from one's service provider.

Energy Poverty & Insecurity



35

Our research finds that this is not a linear process. For many households suffering from energy insecurity this is a cyclical process where they start by struggling to pay their energy bill. They may eventually end up in the form of disconnection and once a household is disconnected it is very difficult to break the cycle, to land on their feet, and to avoid being disconnected again in the future.



I've helped build the [Utility Disconnections Dashboard](#). If you go here, you can essentially play around with and look at data on disconnections and disconnection protections that exist across the states. To highlight one very real statistic that came out of this past year's data, for 332 reporting utilities that we were able to find, there were almost 3 million disconnections in the past year. Again, you can go to this website to see where these disconnection hotspots are.

Without Power



We know from a vast body of literature that without energy people can't charge their devices (e.g., phones, laptops), they can't run their refrigerators and keep perishable and healthy food, and they can't run electronic medical devices that they may need for life or death. And they might not be able to keep their bodies warm or cool, which can lead to a variety of adverse mental and physical health outcomes including, which can lead to death in some cases.

What factors are correlated with energy insecurity?

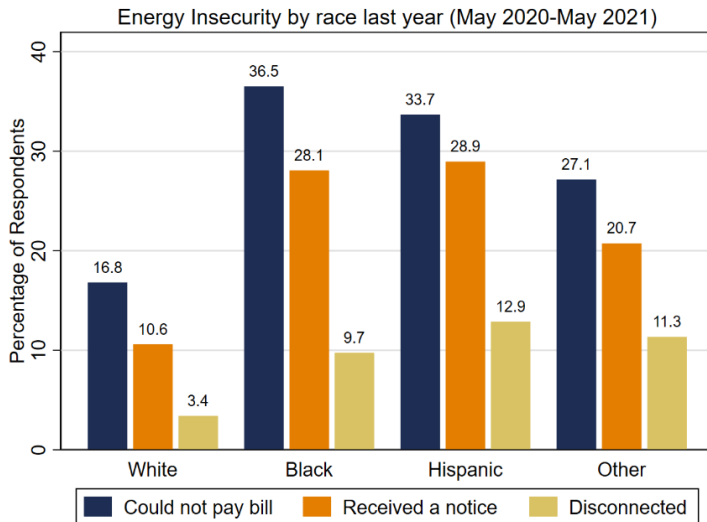
- Exposed/inefficient housing conditions
- Use of at-home electronic medical device
- Demographics and household make-up
 - Low-income
 - Young children
 - Households of color



Source: Memmott, T., Carley, S., Graff, M., Konisky, D.M. 2021. Socioeconomic disparities in energy insecurity among low-income households before and during the COVID-19 pandemic. *Nature Energy* 6, 186-193

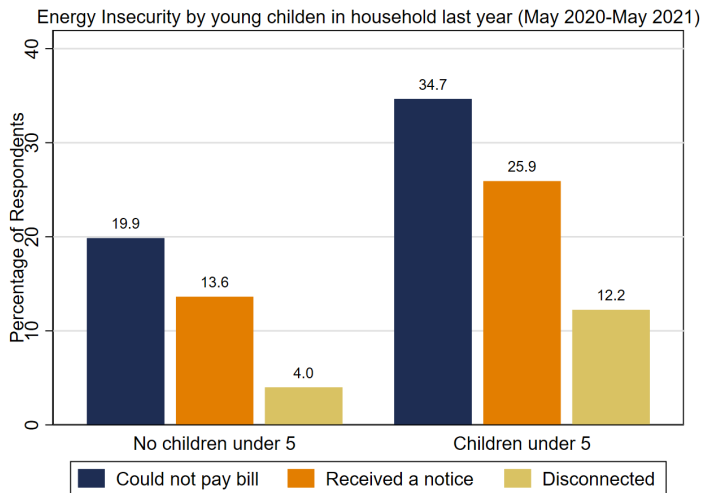
38

In our survey research of those within 200% of the federal poverty line we have assessed through empirical work what factors correlate with energy insecurity. We find that one of the leading indicators is that a house is inefficient. It has inefficient housing conditions or exposed housing conditions. This might mean gaps in the wall, windows that do not fully close, broken HVAC systems, broken refrigerators, mold, and a variety of other conditions. We also find that certain households are more prone to being disconnected and struggling to pay their bills, including those who have an individual who relies on electronic medical devices as well as households that are particularly low-income that have children under the age of five and households of color.



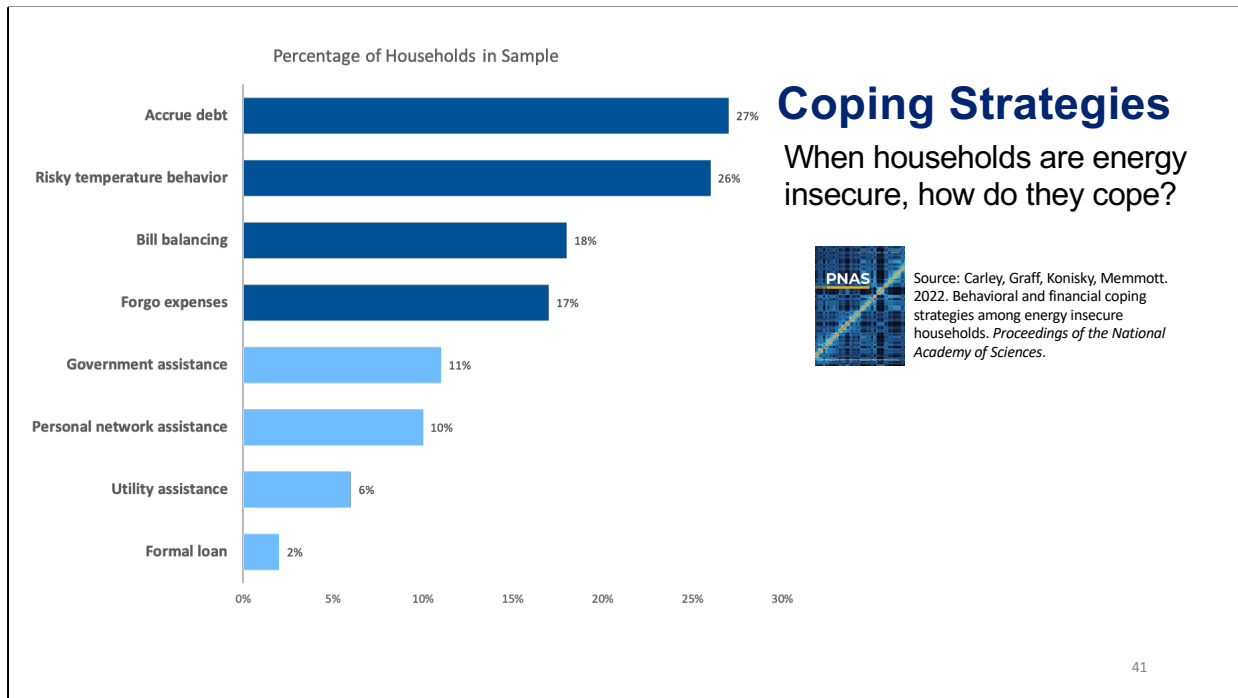
Energy Insecurity: Disparities by Race

Just to show a few of the basic descriptive statistics from this work, here you can see some of these same 3 metrics of not being able to pay your bill, receiving a notice, and disconnection. We have mapped it by households and their racial profiles. You can see here the difference between a white household and a black household is about double in terms of not being able to pay their bill. Black households are disconnected at about three times the rate of white households. For Hispanic households this is four times the rate of disconnection of white households.



Energy Insecurity: Disparities by Children

We have seen similar disparities with households with young children, which is particularly concerning for many reasons. If children are disturbed within the home, they might not be able to live within the home because it's disconnected. Here we can see that rates are three times higher for households with young children.



We've also looked at coping strategies, or what households do when they are struggling to pay their energy bill. This is a representative sample of low-income households. Notice that the most common techniques for dealing with difficulty paying one's energy bills are also the riskiest. Twenty-seven percent of all low-income households accrued debt. Twenty-six percent use some sort of risky temperature behavior including burning trash in your home, opening your oven, flaring your stove top, or sitting in your car for heat while it's in the garage. Balancing bills is 18% of the sample. Forgoing expenses like missing on food is 17%.

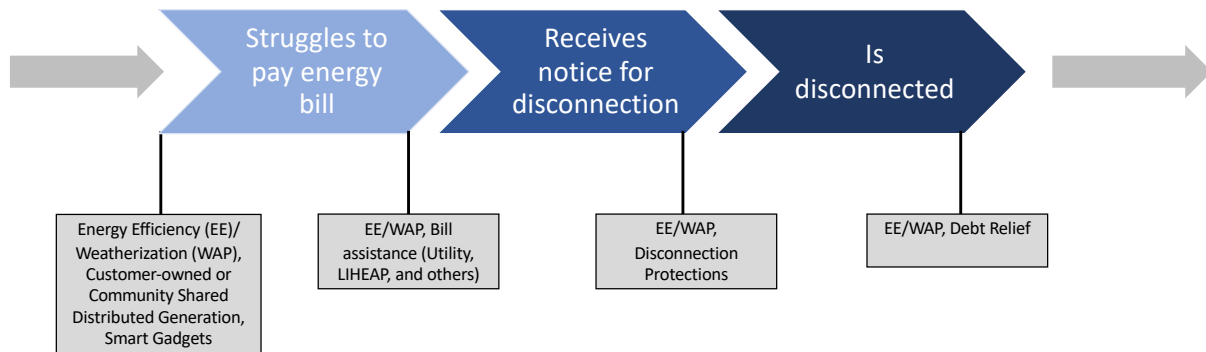
You can see some of the least common techniques that households engage in including picking up the phone and calling the utility for assistance when they're struggling to pay their energy bill, which is only 6% of all low-income households. And 11% seek out other assistance like government support such as the Low-Income Home Energy Assistance Program (LIHEAP).

How can energy efficiency help?

- Can reduce energy bills
- Can make energy more affordable and enable households to curtail less
- Can reduce energy insecurity/poverty
- Can help households avoid entering the cycle of energy insecurity, including facing disconnections

The fundamental question here today is how can energy efficiency help. I would argue it could help in a variety of ways. It can reduce your energy bills. It can make energy more affordable and it can therefore enable households to use less or to use more in the case that they need to use more for their comfort. It can help reduce energy insecurity and poverty. It can help households avoid entering the cycle of energy insecurity.

Energy Efficiency: Both a Preventative and Relief Solution



43

The gray rectangles under the linear projection of this concept contain solutions. Energy efficiency and weatherization are fundamental at every stage of this energy insecurity cycle, where as a preventative solution it can help households avoid becoming trapped in that cycle. But it can also help much later on, for example, when a household has received a notice for disconnection they can have energy efficiency assistance and hopefully avoid being disconnected.

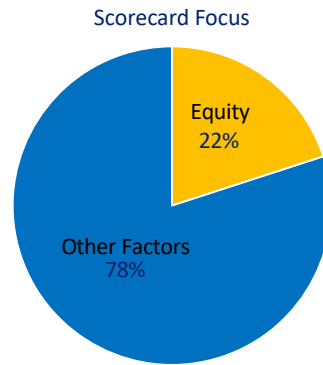


Reflections on the Scorecard Metrics

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Let me turn that into some reflections on the Utility Scorecard in light of some of these ideas, thinking about the metrics that are here and about how these households might be able to engage in energy efficiency programs.

Recognizing the Importance of these Issues



First, I want to highlight that equity is 22% of the metrics within the Utility Scorecard and I think that is tremendous. That really highlights how important these issues are in present day.

How to Access EE for Low-Income and Disadvantaged Customers

1. Reduce barriers to EE, and those barriers may be more pronounced for low-income customers
2. Provide information about access and opportunities
3. Build trust and engagement within the community and households

I'd like to challenge us to think a little bit about how well we can overcome the energy efficiency gap. We know there is an energy efficiency gap for all households within the United States as well as across the world. But that gap is particularly pronounced for low-income households and other more disadvantaged households. In order to overcome this gap it is really important to reduce the barriers to energy efficiency, recognizing that some of these barriers may be more pronounced for low-income customers. For example, one might not own the residence they live in. They might rent it. It is important to provide information about access to these opportunities because many of these opportunities are frankly not on one's radar. They may not know that they exist. It is important to build trust and engagement within the community and households.

Equity Metrics of Particular Note in Scorecard

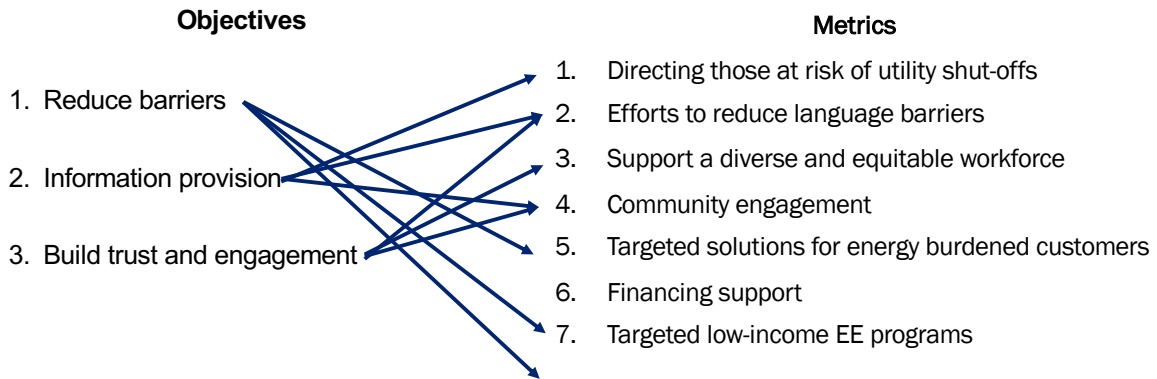
1. Directing those at risk of utility shut-offs toward EE programs
2. Efforts to reduce language barriers in EE program participation
3. Efforts to support a diverse and equitable EE workforce
4. Community engagement on EE
5. Goals for reducing energy burden and designing targeted solutions for energy burdened customers
6. Financing support
7. Targeted low-income EE programs



47

Here is a list of seven of the equity metrics that are included in this year's Utility Scorecard. There are more, but these are seven that I think are really important.

Equity Metrics of Particular Note in Scorecard



In fact, if we take the three objectives and these seven metrics, I just mapped them directly. We can see that reducing barriers is captured in at least three of the metrics. You could interpret these even more broadly and map them to even more. The information provision is also in three of them, and building trust and engagement is in three. So here I would just like to give kudos to ACEEE for really targeting such effective metrics in thinking through the complexities of this challenge, particularly for low-income households.

Metrics of Success

The importance of household savings and real benefits (e.g., living in thermal comfort, fewer disconnections), and less so the amount spent on EE programs

Metrics of success of EE programs:

- **NOT just energy burden! Need to consider other forms of energy poverty**

See: Baker, E., Carley, S., Castellanos, S., Nock, D., Bozeman, J., Konisky, D.M., Monyei, C., Shah, M., Sovacool, B. 2023. Metrics for decision-making in energy justice. Forthcoming in *Annual Review of Environment and Resources*.



49

Going forward for utilities, as well as perhaps for these metrics, I think it's important for us to think deeply about what we are documenting and it is not enough to simply document how much money goes towards households that are struggling, but also to think deeply about the real benefits that they might achieve as a result of these targeted interventions. So these benefits might include things like enhanced thermal comfort, which might actually mean a higher energy burden but they are feeling more comfortable in their home. It might also mean fewer disconnections. So here is a challenge to the broader community of thinking deeply about these metrics and moving beyond just the energy burden metric to think about other forms of energy poverty and other benefits that might accrue to these households.

Utility Disconnections

Only 13 of the 53 utilities direct their customers at risk of shut-off toward EE programs

- Many of the utilities that don't help their customers in this way have the highest rates of shut-offs, according to the Utility Disconnection Dashboard
- Does this mean that the EE programs are too late to help? Or too little, too late?
- Do utilities believe that their customers will trust them enough to help relieve the situation?

Another thing I noticed is that only 13 of the 53 utilities direct their customers who are at risk of shutoffs towards energy efficiency programs. And if we think about the importance again of energy efficiency through that full cycle of energy insecurity, I'm hopeful that at least some of you will agree with me that it is important for a greater number of utilities to direct their customers in this direction. This is only 25%, or one in four of the utilities in the sample.

I also note from the Utility Disconnection Dashboard that some of the same utilities that have the highest rates of disconnection are the ones who are not directing their customers towards energy efficiency. This raises questions. Does this mean that energy efficiency programs are too late to help, or too little or too late. I think the data do not reveal answers to these questions, but we should of course ask them. And I think it's important for utilities to think about whether their customers trust them when they are providing energy efficiency services and think deeply about how to build trust with their customers going forward.


Complementary Utility Efforts for Consideration as Future Metrics

- Discounted bill models (either aggregate or tiered)
- Availability of budget billing models
- Availability of Percentage of Income Payment Program (PIPP)
- Availability of Arrearage Management Programs (AMP)

Here are just a few other complementary utility efforts that one could consider. I do not think these are directly energy efficiency, so it is perfectly logical that they were not included in this Utility Scorecard. But for all of the utilities that are out there thinking about the programs that they are offering this is part of a more comprehensive suite or package including PIPP and AMP programs, debt forgiveness essentially, and helping people pay down their energy bills.



Sanya Carley
scarley@upenn.edu
@CarleySanya
Just Energy Podcast

 Kleinman Center
for Energy Policy
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Thank you.

Q&A



Q: Can you speak to the legislative and regulatory trends that lead to divergent outcomes, the likes of which we see in Michigan versus Ohio?

Mike: That's an example of legislation taking states in two different directions. Prior to 2008 there were no legally mandated targets for utility programs in Michigan. Once those savings targets were put in place and utilities were required to hit them, they not only hit them—they exceeded them. Over time, the growth in those savings has continued to accrue in the state of Michigan.

Exactly the opposite thing happened in Ohio. Some of you may have heard of HB6, which garnered a lot of attention in 2019. It was a law passed through corruption. People have gone to jail for it, including their Speaker of the House. Payoffs were made and part of the collateral damage there was energy efficiency programs ended up getting cancelled. In the last edition of Utility Scorecard were ranked 18th and 21st. That's above average nationally. The cancelling of programs caused them to plummet.

Marty Kushler: In 2008, both states passed good EERS legislation. For the next half-dozen years, both states progressed in parallel. In 2016 Michigan amended its statute to increase the performance incentives to utilities for high savings achievements. In

contrast, in 2019 Ohio passed legislation essentially eliminating their utility EE programs. The divergence in results since that time is pretty stark. Policies matter.

Q: Can you explain why BGE did better three years ago than they did in this edition?

Mike: In general, comparing scores between editions should be possible because we try to keep the methodology as consistent as possible for longitudinal comparisons. In this edition, there were more changes than usual, largely because we wanted to place more emphasis on energy equity. In the last edition, only 6% of points went to energy equity. In this edition, 22% of points went there. By moving points into equity, we decreased the weights of other categories. We also renormalized so that the scoring was out of 100 points rather than out of 50. We also sometimes changed the tiering of how much utilities need to spend or save, for example, in order to earn a certain number of points in a category. That is all to say that apples-to-apples comparisons are not trivial.

But looking at BGE in particular, the majority of the points lost between this edition and the previous edition of Utility Scorecard had to do with program performance. In 2020 BGE earned 69% of the points available for program performance. In 2023 BGE only earned 44% of those points. BGE performed worse in this edition in both the percentage of its annual revenue it invested in energy efficiency (–1.8 points) and the amount of incremental savings EE achieved in 2021 (–2.5 points). The biggest drop was in lifetime electricity savings (–2.5 points), which may indicate that BGE has been relying on measures without long effective useful lifetimes. BGE also struggled with achieving savings among low-income customers, earning only 0.5/5 points. (This metric was redesigned in this edition). BGE mostly did ok in terms of the number and diversity of programs it offers, so that wasn't the major determining factor. BGE performed about 2.5 points worse this edition in the Enabling Group of categories than 3 years ago, much of which may have to do with the edition of new energy equity metrics. BGE could improve those scores by having more robust engagement with customers in the design of energy efficiency programs, taking steps to strengthen the energy efficiency workforce, strengthening efficiency access for non-English speakers, and directing customers at risk of utility disconnection for nonpayment toward energy efficiency programs.

Q: Based on the categories and results, it sounds like these rankings largely reflect state legislative and regulatory environments. Have you found any examples of utilities that are performing well relative to their state policy environment? Or vice versa - utilities that are underperforming, despite having enabling state policy

environments?

Mike: This is an excellent question, and something we considered doing on this Scorecard. However, it is a difficult exercise to determine how much of an overall efficiency environment is dictated by the legislature, regulators, and the utilities, respectively. For example, do utilities not propose more ambitious programs for their own reasons, or because they have reason to believe they won't be approved by regulators? Trying to untangle all that was determined to be beyond the scope of what we could accomplish in this edition of Utility Scorecard.

Q: Could you talk more specifically about how an unsupportive policy and regulatory environment impacted Alabama Power's score? They were among the bottom 3 on the scorecard.

Sagarika Subramanian: We evaluate state energy efficiency policies and programs in ACEEE's [2022 State Scorecard](#). Alabama earned 0 points in the utility and public benefits programs and policies chapter of the State Scorecard, exemplifying an unsupportive policy environment. This likely affected Alabama Power's score in the Utility Scorecard, but it's hard to determine the extent to which it was impacted by its regulatory environment.

Q: Have you seen similar trends on the scorecard for natural gas utilities?

Mike: Utility Scorecard only evaluates electric efficiency programs, so our project doesn't have the data needed to provide a similar assessment for gas programs.

Q: Does the report include considerations around performance incentives for utilities, including rewards or penalties for achieving or not achieving the targets?

Mike: Yes. We award 0.5 points to utilities that have requested a performance incentive mechanism (PIM), 1 point if a utility has an approved PIM directly related to first-year energy savings, and 2 points if the utility has an approved PIM that rewards more than incremental (i.e., first-year) energy efficiency savings. We also have two separate action categories on targets, one on whether utilities have targets, and another on how well the utilities have performed in meeting those targets.

Q: Should state and local building and energy code laws and ordinances be taken into account in these types of reports?

Sagarika Subramanian: The California utilities claim a lot of savings from building codes and standards. Those figures are included in the savings figures in our report.

Q: Falling prices for photovoltaic panels (and implicitly for electricity accumulators) will lead to an explosion of installations for millions of consumers. Connected to the grid, the used inverters will unfortunately also bring negative effects, namely infecting the system with harmonics and, implicitly, imbalances in the voltage levels in the public grid. Are there government research programs and legislative technical regulations to avoid these malfunctions in the future?

Mike: Issues related to renewable energy were out of scope for Utility Scorecard.

Q: I recognize the scope of the scorecard is limited to energy efficiency. Does ACEEE also look at generation sources and transition away from coal, natural, and/or investments in wind, solar and/or small modular reactors?

Mike: Utility Scorecard only focuses on energy efficiency. However, ACEEE has published a number of other reports that look at energy efficiency in the context of changing grid conditions including, for example, its role in the [transition toward a high renewable energy future](#).

Q: What do you think impacted the differences between numbers in the last two editions of Utility Scorecard (e.g., shifting natural gas to electricity, COVID-19/more OA, fewer opportunities for LEDs, utilities not knowing how to implement newer operations programs like MBCx)?

Mike: We asked many of our utilities to share the issues they felt were keeping their energy efficiency programs from reaching their full potentials. I recommend reading that section of the Utility Scorecard for the most complete answer. I will note that these are just the utilities' perspectives. Determining the actual reasons independently was outside the scope of this report.

Q: Are any utilities incentivizing maintenance of cooling apparatus (both refrigeration and AC), especially coil cleaning. A global study by The Carbon Trust, if extrapolated to the U.S., suggests a yearly indirect (power plant) emissions reduction potential of ~120 million metric tons CO₂e.

Mike: We actually received a recommendation to include HVAC tune-up as an eligible program category as part of our review process. I anticipate this will be assessed in the next edition of Utility Scorecard. Measures in that category would include those that correct issues related to thermostats, air filtration, fan blades, blower motors, coils, drainage, wiring and connections, circuit boards, voltage supply, refrigerant leakage, and duct connections.

Q: Is there any research available on how utilities are supporting multifamily affordable housing rental properties? Or will ACEEE be looking into how utilities are engaging with low-income renters on energy efficiency?

Mark Kresowik: Yes, our [Energy Equity for Renters initiative](#) and [multifamily energy savings project](#) have resources for those purposes.

Q: Are there any metrics or scoring around utility R&D? R&D often precedes actual roll-outs and actions (e.g., technology), so R&D can potentially be a precursor measurement regarding future/upcoming effectiveness. One example might be grid-level investments in, say, long-term energy storage (LTES), e.g., battery technology. Also broadly links to decarbonization. But other examples of R&D as well.

Mike: I'd be curious to hear what types of R&D you are considering around energy efficiency, but I don't believe we assess any utility R&D issues in Utility Scorecard.

Q: Could you speak to the impact that IRA programs could have on these initiatives?

Mark Kresowik: One of the questions with those programs will be how savings can be attributed to utility energy efficiency programs. Each state with utility programs will have to determine how that works. We will likely have a more detailed blog on this later, but we start to address that issue in [this brief](#).

Q: Are "savings" in units of kWh?

Mike: Yes, energy savings are measures in energy units. We count savings as "net at the meter" meaning that we correct for energy savings that would have occurred even without utility programs and for energy lost over the transmission and distribution systems.

Q: With the current policy agenda towards carbon reduction, more renewables, and increased efficiency, free ridership continues to increase. Free ridership has a negative impact to cost effectiveness. Are cost effectiveness standards being adjusted to remove free ridership?

Mike: Utility Scorecard did not assess cost-effectiveness standards, so I won't speculate on that point. However, we did evaluate utilities based on their net savings, so all those scores in the savings categories should take free ridership into account.

Q: Our state is not included in the Utility Scorecard. Is our utility scored as a part of their parent company or is there a way to have it included in future reports?

Mike: There are thousands of utilities in the U.S., so we have to direct our resources towards evaluating as many of the largest of those as we can. However, all of our metrics are clearly defined in the report, so interested advocates could repeat our methodology (also described in the report) for their utility of choice to assess how they are performing.

Q: Did you collect data regarding ratepayer impact (meaning, how much are utilities per state are allowed to charge customers for ratepayer-funded programs)? For example, in Texas cost recovery is limited to approximately \$1.55/month for a residential customer using 1,000 kWh/month. How does this compare to other states?

Mike: Not explicitly, though this would likely be reflected in categories related to energy efficiency spending.

Q: Does the ACEEE analysis show maturing EEPs having lower savings return on their spending over time, since early EEP initiatives generally are targeted at technologies with the greatest energy savings potential?

Mike: No, but this is something that we have thought about. States that have been leading in efficiency for years, like Massachusetts, will find that they have a harder time achieving incremental savings in the future relative to a state that still has a lot of low-hanging fruit. How do you compare those utilities on an apples-to-apples basis? It's a tricky problem. We are open to suggestions.

Q: With the large push towards electrification, prices will likely rise which could put significant burden on certain households. What utility or area of the country is considering this, and what is the plan to address this?

Mark Kresowik: We do not think the premise of your question is accurate. Electrification, if done efficiently, could actually put downward pressure on electric rates. However, there are a number of efforts to ensure that energy burdens for low-income households are reduced in the transition. We will highlight a number of those efforts in forthcoming briefs and blogs.

Mike: There are two competing issues at play here. First, electrification will add new load to the grid without adding new customers. That means fixed costs will be spread over a wider base of consumption, which should put downward pressure on rates. However, if electrification is done without energy efficiency, it could require new investments in distribution infrastructure, which would put an upward pressure on rates. One state that has tried to address this is California, which will adopt income-tiered fixed charges in 2024. Fixed costs will go to zero for the lowest-income customers, but will become much higher for the highest income customers. In exchange for higher fixed charges, the volumetric rate of electricity will drop, which should incentive electrification while protecting low-income customers.

Q: How do you see beneficial electrification (often bundled with EE) changing the scorecard in terms of how you estimate energy “savings” (which, in some jurisdictions, may include gas savings in the overall calculations [BTUs-->kWh] and, in others, simply netting increased kWh usage as a reduction to savings)?

Mark Kresowik: This is an excellent question. Many states and utilities are modifying their energy efficiency programs to focus on climate pollution reductions rather than energy savings as the primary metric for success. We highlight some of those in a [recent blog](#). We expect our next Scorecard methodology will take that development into account.

Q: Were any feedback surveys or listening sessions held in directly impacted BIPOC or low-income communities before defining “equity” for this scorecard?

Mike: Utility Scorecard’s research team worked in coordination with ACEEE’s [Leading with Equity initiative](#) to ensure the perspectives of those communities were taken into account.

Sagarika Subramanian: ACEEE's Leading with Equity Initiative convenes community-based organizations, advocates, and utilities to develop equity-focused metrics across ACEEE's Scorecards.

Q: Are any directly impacted community members involved in the work or on any committees that are making decisions?

Sagarika Subramanian: ACEEE's Leading with Equity Initiative (<https://www.aceee.org/energy-equity-initiative>) convenes community-based organizations, advocates, and utilities to develop equity-focused metrics across ACEEE's Scorecards.

Q: Is there any correlation between territories whose utilities earned low scores on Utility Scorecard and regions that have higher poverty?

Sanya: This highlights the immense value of having a scorecard like this. It not only provides a way to look at utilities and dissect policies, but you can overlay those data with other indicators to tell more nuanced stories. I haven't done that, but your intuition might be right.

Q: What was the highest level of annual incremental EE savings (as % of sales) achieved by any utility assessed?

Sagarika Subramanian: It was 3%, achieved by San Diego Gas & Electric.

Q: It seems like metrics related to a reduction in disconnections or LIHEAP funding would be good metrics to show tangible benefits to the low-income beneficiaries.

Mark Kresowik: Absolutely. We will definitely be considering disconnections for future Scorecard metrics.

Q: If many low-income customers live in apartments, do energy efficiency programs target owners of the apartment to implement measures like insulation, windows upgrades, or heating/cooling systems? These tend to have longer payback periods, impact renters, but need owners to buy in.

Mark Kresowik: You're describing the "split incentive" challenge, where renters pay

utility costs but landlords control whether many efficiency measures can be installed. There are ways to overcome that barrier, including programs to incentivize or even require landlords to take action, including building performance standards.

Q: Can you talk about overcoming the split incentive between landlords and tenants?

Sanya: This is an opportunity to learn from the programs utilities have in place. Utility programs that reach out to landlords, those programs' incentives, and the negotiations they have are really important. I don't know of utilities off the top of my head who have particularly progressive policies in this area.

Chelsea: The weatherization providers in Virginia have traditionally used federal weatherization funds just for single-family homes. Some do multifamily, but not many. However, Dominion actually has a regulated low-income program. I mentioned that they've committed to spending \$13 million of shareholder-funded program dollars through their EnergyShare program. Dominion has two different programs, one that is not regulated by the SCC because the shareholders pay for it, and one that goes through the regular process and is regulated.

The weatherization providers use both of those programs to do a lot of the multifamily efficiency work. About 90% of those dollars go to multifamily. Many times the weatherization providers are in contact with the building owner. The building owner may have gotten in touch with them. They might do a cold call. It might have been a tenant that reached out. But we do see some multifamily that is happening here, particularly on the Dominion side.

Advocacy groups are only in certain states, but [Energy Efficiency for All](#) (EEFA) is a great coalition of consumer and energy efficiency advocates in certain states that are really hoping to address this problem with the split incentive between landlords and renters. We do have an active coalition here in Virginia. There are some in other states too, but if your state has one, I would recommend getting in touch with them because they do a really great job of keeping this question at the forefront.

Mark Kresowik: Yes, our [Energy Equity for Renter initiative](#) includes toolkits with many of those best practices.

Q: My understanding is that Entergy Louisiana reports on "deemed savings" of its EE programs instead of real savings. Is this common practice? Can you speak to how that is handled in the scorecard?

Mike: We do not differentiate in the report between deemed savings (i.e., estimated savings based on installed measures) and measured savings (e.g., through AMI or after-the-fact evaluation). Using deemed savings to determine how much energy efficiency programs reduce is a more common practice than using measured savings, to the best of my knowledge.

Q: How do you account for differences in methodologies used by utilities to estimate savings? Do you take any steps to validate their calculations?

Mike: We don't. It's worth noting that utilities will often hire third-parties to independently evaluate their efficiency portfolios. Those evaluations often take the form of annual demand-side management studies, which offers a form of validation. We award points to utilities on Utility Scorecard that engage in that sort of independent third-party process.

Q: Chelsea, you mentioned weatherization programs that provide services to low-income households. And you also talked about Virginia's withdrawing from RGGI.

Chelsea: Virginia is unique. Today we're only talking about the two investor-owned utilities, but in addition we have 8 electric cooperatives that operate in Virginia. We also have a Kentucky utility who operates in only 5 counties in far southwest Virginia. The further south and west you go, the more rural and impoverished this state is versus Northern Virginia, right outside the DC metro area, which has some of the richest counties in the country. So when I talk about Appalachian Power Company and Dominion being two different worlds, that is the dichotomy of our state. We go from one of the richest counties in the nation to coal country. So it is vastly different.

Unfortunately, yes, depending on who your utility is, and perhaps how much of a budget the weatherization provider in your area has, I think there is a disparity in services that you can receive. A lot of Justice40 communities, particularly in central and northern Virginia, particularly those who are urban, have greater services and greater resources. But as you move to southwest Virginia, those resources are fewer and further between.

Even though RGGI money comes from our utilities through carbon trading, that money is then managed by our Department of Housing and Community and Development for low-income programs. So the energy savings that are achieved through RGGI are not calculated in the utility score because it does not count as a utility program. That is separate money that is managed by the Department of

Housing and Community Development.

Q: Chelsea, consistent with the NSPM, would you support a Virginia-specific cost-effectiveness test for your utilities if Virginia does not settle on a societal cost test?

Chelsea: Our conversations to date have been centered around what factors Dominion includes in their cost tests, then identifying issues with certain factors. We haven't identified a specific test, but I would guess it would be a total resource cost (TRC) test with more cost and benefit factors, such as the social cost of carbon.