



# Next Generation Energy Efficiency Resource Standards Update

Jasmine Mah, Steven Nadel, and Sagarika Subramanian

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Research Report



## About ACEEE

The **American Council for an Energy-Efficient Economy** (ACEEE), a nonprofit research organization, develops policies to reduce energy waste and combat climate change. Its independent analysis advances investments, programs, and behaviors that use energy more effectively and help build an equitable clean energy future.

## About the authors

[Jasmine Mah](#) researches policies, programs, and funding sources that simultaneously improve human health and energy efficiency. She also cooperates with researchers across different programs, including the utilities, buildings, state policy, and local policy teams. Prior to joining ACEEE in 2021, Jasmine worked for the National Center for Sustainable Transportation.

[Steven Nadel](#) joined ACEEE in 1989 and has served as executive director since 2001. His current research interests include energy and climate change policy; strategies to decarbonize the buildings, transportation, and industrial sectors; utility-sector energy efficiency programs and policies; and appliance and equipment efficiency standards. Before ACEEE, Steve worked for Massachusetts' largest electric utility and largest environmental group and worked with an inner-city housing organization in Connecticut. He has worked in the energy efficiency field for more than 40 years and has over 200 publications.

[Sagarika Subramanian](#) now works in the program development group on the program design team at VEIC, the Vermont Energy Investment Corp. From 2021–October 2024, she led ACEEE's *State Scorecard* and conducted research and analysis on state-level energy efficiency policies. Prior to joining ACEEE in 2021, Sagarika worked at the University of California, Los Angeles as a research assistant and as an intern at the Alliance to Save Energy.

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# Executive summary

## Key findings

- Twenty-six states plus the District of Columbia presently have an energy efficiency resource standard (EERS), which requires utilities to achieve multiyear utility-sector energy savings. Most of these EERS policies contain ambitious features to accomplish goals beyond energy savings; these are known as *next generation* provisions.
- Of these states, 23 (including DC) have next generation features to use the EERS to help achieve additional goals. These include goals for decarbonization, electrification, and low-income spending or savings. Low-income targets are the most common next generation feature (21 states). Several states have greenhouse gas (GHG) reduction or fuel-neutral energy saving goals and/or electrification targets. Other states have authorized electrification programs in recent years without setting targets.
- States with EERS policies usually achieve much higher energy savings than states that operate energy efficiency programs without specific targets. In 2023, EERS states accounted for about 59% of the U.S. population but 82% of the savings across the United States from utility energy efficiency programs. In 2023, states with an EERS in effect achieved on average incremental electricity savings of 0.85% of retail sales, compared to average savings of 0.28% in states without an EERS.
- Across all states, low-income program spending averaged about \$14 per eligible customer. Among the EERS states, this figure was \$26, nearly twice as high. Many of these EERS states set minimum spending requirements for low-income programs, including six that allocate at least 25% of their energy efficiency budgets.
- Case studies are provided for five states (Illinois, Massachusetts, Michigan, Minnesota, and New York) with long-term EERSs that include substantial next generation features. In these case studies, we highlight substantial low-income and electrification progress in Massachusetts and New York and growing efforts in these areas in the other case study states.

Presently, 26 states plus the District of Columbia have EERS policies in place. These states accounted for over 80% of utility energy efficiency program savings in 2023, making EERS policies a critical part of utility energy efficiency programs. On average, in 2023, utilities achieved 99% of their EERS goals, with some utilities exceeding goals and others falling a little short. Utilities exceeding goals were often aided by performance incentives that reward utilities for exceeding EERS minimums.

In this study, we examined four specific next generation elements:

1. Mandatory emissions reduction targets or a decarbonization goal
2. Electrification, including enabling and encouragement policies and sometimes explicit targets
3. Minimum targets for underserved customers, such as low-income households
4. Energy burden maximums or affordability provisions

In addition, a few states have additional EERS provisions, such as peak demand savings (a key feature of the Texas EERS) and requirements for measures with long-term savings (e.g., a provision in the Illinois EERS). Only a few states have these provisions, so while we note them where relevant, we do not cover them in depth because they are infrequent.

Of the EERS states, we identified at least one next generation element in 23 (including DC). The number of states with each of these elements is illustrated in figure ES-1.

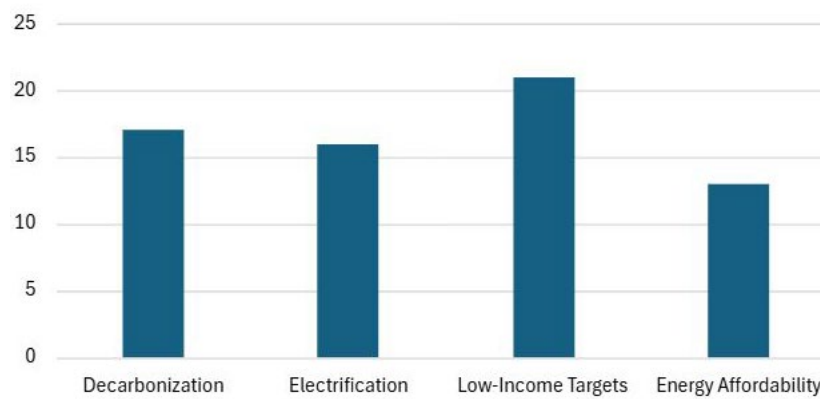


Figure ES-1. Number of states with specific next-generation EERS elements

In many of our case study states, these next generation elements are resulting in increasing low-income and electrification program activity, particularly for low-income programs in all our case study states (Illinois, Massachusetts, Michigan, Minnesota, and New York) and electrification programs in Massachusetts and New York. Next generation policies are also contributing to complementary policies such as new construction requirements in Massachusetts and New York, electric rate redesign efforts in Massachusetts, and low-income rates in Illinois and Minnesota. More impacts are likely to become apparent in the next few years after new programs and policies triggered by recent legislation and commission orders take effect.

Based on these findings, we recommend that:

1. The 24 states without EERS policies consider adopting an EERS, either by action of their legislatures or utility commissions. We find that EERSs drive much higher savings than more general policies without savings targets.
2. The four states with EERS policies that currently contain no next generation provisions (Arizona, Arkansas, North Carolina, and Wisconsin) should consider expanding these policies to include next generation elements such as GHG and British thermal unit (Btu) savings metrics, and low-income and electrification targets.
3. The 23 states (including DC) with some next generation aspects should consider additional next generation components. Specific items to include are:
  - Savings targets tied to GHG reductions, such as Maryland and Massachusetts have done and/or to Btu energy savings as Massachusetts and New York have done. Btu savings targets

enable programs to tackle fuel oil and propane savings, both high-GHG fuels, and also to promote fuel switching that reduces energy use and emissions.

- Low-income savings and/or spending targets, as 21 EERS states have done. Targets should be substantial—six states require that at least 25% of program spending serve low-income households. Ideally, special efforts should be made to identify and target households with high energy burdens, as Eversource in Massachusetts is doing
- Complementary expanded low-income energy efficiency programs and low-income rates, energy burden maximums, or affordability provisions, such as percentage of income payment plans. These provisions reduce high household energy burdens. The new Xcel rate that seeks to limit energy burdens to 4% is particularly notable. Illinois and Massachusetts are other states with new low-income rates that could serve as models.
- Provisions that enable and encourage utilities to electrify end-uses where this will save energy and reduce emissions. Illinois, Michigan, and Minnesota have recently taken such steps, and Massachusetts and New York have gone so far as to set electrification targets that are helping to drive growth in heat pump sales.

Such efforts can be led by legislators, regulators, or other key parties, such as state energy offices and energy efficiency organizations.

States with next generation components should regularly review and refine those components, such as New York did with its 2022–2023 interim review, Massachusetts is doing with its new three-year plan covering 2025–2027, and Minnesota and Illinois have been doing with new legislation. These reviews should be publicized so other states can learn from them.

## Introduction

Since 1999, 26 states and the District of Columbia have adopted an energy efficiency resource standard (EERS). An EERS is a state law or policy that requires utilities and non-utility program administrators to achieve long-term energy savings through customer energy efficiency programs (NCSL 2021; Gold, Gilleo, and Berg 2019). Prior research has shown that states with an EERS also produce three to four times more energy efficiency savings and spending levels compared to states without one (Berg et al. 2020).

ACEEE considers a state to have an EERS if it sets long-term or multiyear targets for electricity or natural gas savings, makes these targets binding, and possesses enough funding to implement the utility programs necessary to meet targets (Subramanian et al. 2022). Traditional EERS policies often specify electricity or natural gas savings targets as a percentage of sales by a target date, or as an absolute savings target that is not tied to sales. Targets are often established to incentivize utilities and energy efficiency program administrators to pursue higher energy savings than they otherwise would.

EERS policies are a strong driver of high efficiency savings, but details matter in terms of what types of behavior is promoted. For example, if just savings targets are set, there will be a tendency to implement low-cost programs that achieve the targets at minimal expense. If other objectives are sought, such as providing services to low-income customers, they should be considered when setting targets, such as considering multiple targets in an EERS policy.

In recent years, new policy priorities are leading some states to modify their requirements by going beyond first-year efficiency savings.<sup>1</sup> As state climate and clean energy goals expand and evolve, policymakers are seeking to deploy energy efficiency in a way that more directly supports grid decarbonization efforts by reducing costs and lowering greenhouse gas (GHG) emissions. EERS policies in some states, such as Illinois, Massachusetts, and New York, have changed over the last several years to encourage fuel-neutral savings and promote net reductions in GHG emissions and net societal benefits through building and vehicle electrification.

Previous ACEEE research has tracked the evolution of state EERS policies. The 2019 report *Next-Generation Energy Efficiency Resource Standards* highlighted states that had revised their EERS policies to accomplish multiple goals. Decarbonization and state climate targets were the most important motivators for pursuing deeper energy savings in these modified EERS policies. The report featured California, Hawaii, Massachusetts, Minnesota, and New York as case study states. Many of these leading states explored fuel-neutral goals to enhance the decarbonization benefits of energy efficiency.<sup>2</sup> Commitments to renewable energy and a transition away from fossil fuels also helped states improve grid flexibility and advance equity (Gold, Gilleo, and Berg 2019).

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<sup>1</sup> Also known as "incremental annual savings," first-year savings capture the annual savings from new measures installed in comparison to the baseline measures replaced. They do not capture the savings from earlier installed measures (Gold and Nowak 2019).

<sup>2</sup> Hawaii was the only 2019 case study state that did not explore fuel-neutral goals or set explicit decarbonization targets. Hawaii's next generation efforts focused on renewable energy integration, economic development, and energy affordability.



Equitable EERS policies were the subject of ACEEE's 2023 report *Advancing Equity through Energy Efficiency Resource Standards*. This report closely examined EERS policies that employed strategies to bring energy efficiency benefits to underserved communities. Despite multiple financial, health, and environmental benefits of energy efficiency, low-income households, communities of color, and other customer groups face significant barriers to accessing the benefits of energy efficiency programs (Drehobl, Ross, and Ayala 2020). Some states have made efforts to improve equitable distribution of benefits for low-income households, often by requiring a minimum amount of spending for low-income energy efficiency programs (Reames, Stacey, and Zimmerman 2019). Minimum spending targets differ from minimum savings targets that must come from low-income programs. The latter is more difficult to track, but it is also a better gauge of distributional equity (Berg and Mah 2023).

Many states excelled with requiring minimum spending targets for low-income customers, equitable public engagement practices, and equity metric data collection. However, few states required provisions that addressed energy affordability, whether through energy burden caps or minimum savings requirements for low-income customers (Berg and Mah 2023). Overall, previous reports find that states are making progress with using EERS policies to bring clean energy benefits to underserved customers, but more work is needed to intentionally center equity in EERS policies. This report focuses on recent developments and updating findings from earlier research.

## Methodology

This report defines an *EERS* as a policy that: 1) requires a state to achieve multiyear utility-sector energy savings and 2) includes sufficient funding for full implementation of programs necessary to meet targets. We define a *next generation EERS* as a policy that meets the above criteria and 3) establishes additional requirements related to achieving clean energy benefits beyond annual savings targets. The term *traditional EERS* describes policies that just meet the first two criteria, typically through incremental annual savings targets, often expressed as a percentage of electric or gas sales or as a specific amount of kilowatt hours (kWh) or therms to be reduced. These traditional EERSs promote energy savings but typically leave it up to the utility to decide which types of programs will be used to meet these savings targets.

In recent years, many states have established additional goals to complement energy savings. These next generation EERS policies typically include energy savings and one or more of the following additional goals, which we refer to as *next generation elements* in this report:

1. **Mandatory emissions reduction targets or a decarbonization goal.** An EERS may intentionally use energy savings targets to accomplish climate change goals. These goals can be expressed as incremental emissions reduction targets that correspond to incremental energy savings, or they can be part of a state's broader climate action plan or decarbonization goal (e.g., achieving net zero emissions by a specific year). And a few states are setting utility targets in terms of GHG reductions.
2. **Electrification.** Traditional EERS policies have set energy savings goals for both electric and gas utilities, but some emerging EERS policies have explicitly encouraged utilities to advance building and transportation electrification. (Electric utilities are typically encouraged to address both buildings and transportation, while gas utilities are sometimes encouraged to address buildings electrification.)<sup>3</sup> Some policies may direct utilities to file electrification plans, while

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<sup>3</sup> These electrification programs typically reduce fuel use and greenhouse gas emissions but increase electricity use.

others may set targets related to electric vehicle charger installation. An EERS policy can meet this criterion if it directs utilities to plan or invest in electrification, either directly or indirectly, such as establishing fuel-neutral savings goals (e.g., Btu savings goals). Furthermore, a few states have imposed restrictions on providing incentives for gas-fired equipment as part of their electrification efforts.

3. **Minimum targets for underserved customers.** Some EERS policies require prescribed levels of benefits to underserved customers, such as low-income households.<sup>4</sup> Targets related to underserved customers may include minimum spending, minimum savings, or a minimum percentage of total benefits to customers. While serving these customers is often more expensive per unit of energy savings than standard programs (Mims Frick et al. 2021), it is important that these customers at a minimum receive these services to the same degree as other customers, lest these underserved customers pay for services they rarely receive.
4. **Energy burden maximums or affordability provisions.** Saving energy can help reduce energy burdens, or the percentage of annual household income that goes toward paying energy bills. Unfortunately, many underserved customers live in highly inefficient homes that result in high energy burdens. To solve this problem, state policies may set a maximum energy burden that a state cannot surpass. Others may require utilities to set low-income rates or start bill payment assistance programs or percentage-of-income payment programs that set a maximum limit for monthly utility bills. For the most part, these provisions are separate from EERS statutes and rules. However, they are important and complementary to EERS policies for low-income customers, so we decided to include them in our review, albeit with less detail than the three other provisions discussed above.

In addition, a few states have additional EERS provisions, such as peak demand savings (e.g., a key feature of the Texas EERS) and requirements for measures with long-term savings (e.g., a provision in the Illinois EERS). Only a few states have these provisions, so while we note them in some of the program descriptions below, we do not cover them in depth because they are infrequent.

Below, we discuss many aspects of EERS policies, meaning that they are included in EERS legislation and implementing regulations. However, there are also many complementary policies, such as state policies addressing issues like GHG emissions targets, building codes, appliance standards, and rate design (including rate discounts). To provide context, our case studies share information on these complementary policies, particularly where EERS policies helped lay a foundation. In our discussion, we try to be clear about which aspects are part of the EERS legislation and rules and which are not, but lines can get blurry.

For each of the EERS states, we reviewed legislative and regulatory documents from the 26 states, plus the District of Columbia, that currently have an EERS in place. We then conducted interviews with representatives from the Midwest Energy Efficiency Alliance (MEEA) and the Northeast Energy Efficiency Partnerships (NEEP) to learn more about the context behind next generation EERSs, particularly in the target states. We also interviewed staff at the Minnesota Center for Energy and the Environment and a representative from Eversource Energy. The interviewees provided information on regional energy efficiency trends, policy discussions surrounding recent EERS updates, and anticipated future policy developments. Most of the discussion focused on the policy process behind recent EERSs, specifically the stakeholders involved and the driving factors that led to the prioritization of specific goals.

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<sup>4</sup> "Underserved customers" is a broad term that can include low- and moderate-income households, renters, rural communities, environmental justice communities, non-native English speakers, communities of color, and other historically marginalized groups (Mah and Sussman 2023).

## EERS overview

As of late 2024, 26 states and the District of Columbia have implemented EERS that covers electricity. Of these states, 14 also have an EERS policy in place for natural gas. Figure 1 shows state EERS adoption by year, while figure 2 includes a map with the EERS states and color shadings that correspond to the level of average annual electric savings targets.

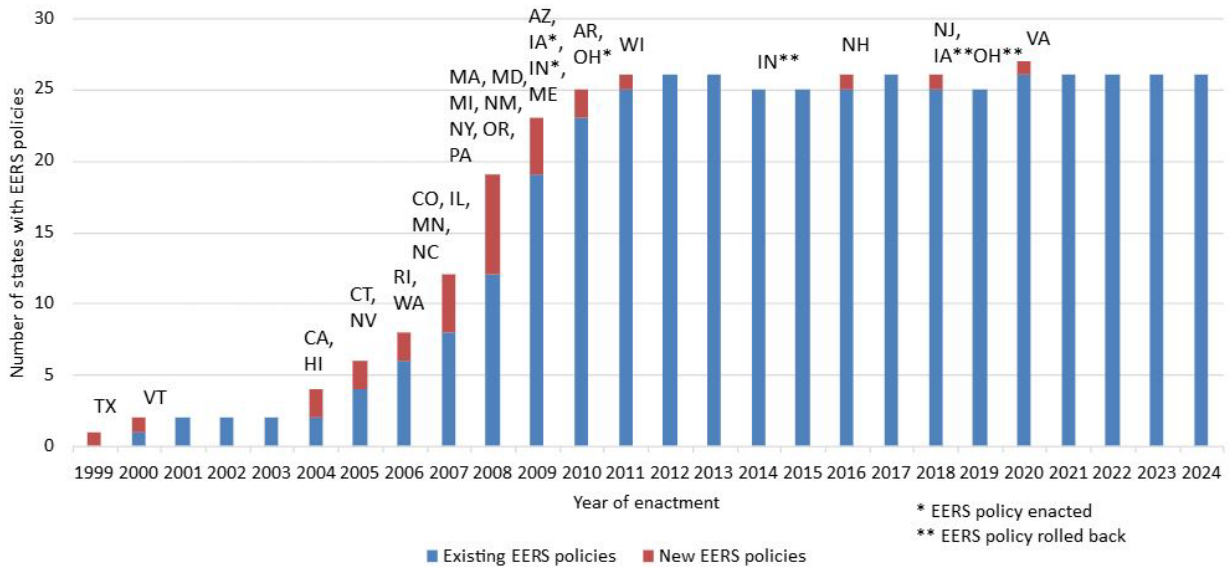


Figure 1. States with an EERS by year of adoption. Indiana, Iowa, and Ohio’s EERSs were rolled back in 2014, 2018, and 2019, respectively.



**Table 1. EERS policy details**

State	Average annual incremental electric savings target (2020–2026)	% electric sales covered*	Authority	Basis type <sup>6</sup>	Also have gas EERS?	Current EERS policy
Arizona	1.1%	56%	Regulatory	Relative: rolling	No	In February 2022, the Arizona Corporation Commission issued a decision modifying Integrated Resource Plans for APS, TEP, and UNS Electric. As part of the approval, both APS and TEP are required to achieve at least 1.3% annual energy efficiency savings over the next three-year planning period and to report these savings in their 2023 Integrated Resource Plan. The formal EERS ended in 2020, but the major utilities have continued their programs at approximately previous levels, with approval from the Commission.
Arkansas	1.2%	50%	Regulatory	Relative: fixed	Yes	For 2024–2026, savings targets are 1.2% of 2022 baseline sales for electric utilities and 0.5% of baseline sales for natural gas utilities.
California	Goal now specified in “total system benefit” and not energy savings	73%	Legislative	Absolute: all cost effective	Yes	SB 350, signed in 2015, called on state agencies and utilities to double cumulative efficiency savings achieved by 2030. Decision 21-05-031 adopted a new Total System Benefit metric to replace the separate energy savings and peak demand savings targets. There are individual annual targets for the state's electric and gas utilities.

<sup>6</sup> This column addresses whether targets are absolute (e.g., xx kWh) or relative to sales, and also whether these are fixed (e.g., based on sales in a specific year) or rolling.

State	Average annual incremental electric savings target (2020–2026)	% electric sales covered*	Authority	Basis type <sup>6</sup>	Also have gas EERS?	Current EERS policy
Colorado	1.7%	56%	Legislative	Relative: fixed	Yes	<p>Electric: HB 17-1227 extended existing programs and calls for 5% energy savings by 2028, compared with 2018. Starting in 2019, incremental savings goals for PSCo were increased from 400 GWh to 500 GWh, or roughly 1.7% of sales.</p> <p>Natural gas: Savings targets commensurate with spending targets (at least 0.5% of prior year’s revenue)</p> <p>In January 2022, a settlement agreement was reached related to Tri-State Generation and Transmission Association’s 2020 Electric Resource Plan. Among the provisions of the agreement are first-ever incremental annual energy efficiency savings targets for the electric co-op, with goals to reduce system load at least 0.35% in 2023, 0.5% by 2024, 0.75% by 2025, and 1% by 2030.</p>
Connecticut	0.7%	93%	Legislative	Absolute: all cost effective	Yes	<p>In Connecticut’s 2022–2024 Conservation and Load Management Plan for energy efficiency and active demand response programs, utilities expect to achieve 524 annual GWh savings and annual 1,424 million cf gas savings, which is enough to power approximately 85,000 homes for one year.</p>
District of Columbia	0.7%	100%	Legislative	Absolute	N/A. DC has a combined fuel-neutral goal	<p>For FY2022–FY2026, the DC Sustainable Energy set cumulative targets for reductions in energy consumption for five years.</p>

State	Average annual incremental electric savings target (2020–2026)	% electric sales covered*	Authority	Basis type <sup>6</sup>	Also have gas EERS?	Current EERS policy
Hawaii	1.4%	100%	Legislative	Absolute	No	In 2009, Hawaii transitioned from a combined RPS-EERS to a stand-alone Energy Efficiency Portfolio Standard (EEPS) goal to reduce electricity consumption by 4,300 GWh by 2030 (equal to ~30% of forecast electricity sales, or 1.4% annual savings).
Illinois	1.8%	89%	Legislative	Relative	Yes	The Climate and Equitable Jobs Act requires ComEd to achieve a cumulative 21.5% reduction and Ameren to achieve a 16% reduction in energy use by 2030, compared with deemed average weather-normalized sales of electric power and energy across 2014, 2015, and 2016. These overall savings goals translate to incremental savings targets averaging 1.77% of sales from 2018 to 2021, 2.08% from 2022 to 2025, and 2.05% from 2026 to 2030.
Maine	1.2%	100%	Legislative	Relative: rolling	Yes	Electric: Incremental gross savings targets of 1.5% per year for 2023–2025, or roughly 1.2% net savings Natural gas: Incremental savings of 0.5% per year for 2023–2025
Maryland	1.7%	97%	Legislative	Relative: fixed	No	Under the 2022 Climate Solutions Now Act, utilities must achieve incremental gross energy savings of 2% per year for 2022–2024, 2.25% per year in 2025 and 2026, and 2.5% per year in 2027 and thereafter. Legislation in 2023 changed the metric to GHG savings, with details TBD by PSC.
Massachusetts	1.1%	85%	Legislative	Absolute: all cost effective	Yes	Electric incremental net savings targets of 1.25% in 2022, 1.11% in 2023, and 1.08% in 2024. There are individual annual targets for the state's gas utilities.

State	Average annual incremental electric savings target (2020–2026)	% electric sales covered*	Authority	Basis type <sup>6</sup>	Also have gas EERS?	Current EERS policy
Michigan	1.0%	100%	Legislative	Relative: rolling	Yes	PA 341 and PA 342, passed in December 2016, carried forward current 1% electric and 0.75% natural targets until 2025. In 2023, SB 273 was passed, increasing the minimum energy savings requirement for both electric and gas utilities (from 1% to 1.5% of annual sales for electricity and from 0.75% to 0.875% for gas) for each year starting in 2026.
Minnesota	1.4%	97%	Legislative	Relative: rolling	Yes	Under the Energy Conservation and Optimization (ECO) Act passed in 2021, electric investor-owned utilities (IOUs) in the state need to save 1.75% of gross annual retail energy sales each year, and gas IOUs will need to save 1%.
Nevada	1.1%	88%	Legislative	Relative: fixed	No	20% of retail electricity sales to be met by renewables and energy efficiency by 2015, and 25% by 2025. Energy efficiency may meet a quarter of the standard through 2014 but is phased out of the RPS by 2025. SB 150, signed June 2017, directed the Nevada PUC to set new savings goals for NV Energy. The PUCN adopted regulations in Docket Nos. 17-07011 and 17-08023 that set an energy savings goal from DSM programs of 1.1% of the forecasted weather normalized sales of the electric utility for the period January 1, 2022, to December 21, 2024.



State	Average annual incremental electric savings target (2020–2026)	% electric sales covered*	Authority	Basis type <sup>6</sup>	Also have gas EERS?	Current EERS policy
New Hampshire	0.95%	100%	Regulatory	Relative: rolling	Yes	<p>According to the 2024–2026 New Hampshire Statewide Energy Efficiency Plan, approved by the New Hampshire PUC in 2023, the utilities must achieve the following targets:</p> <p>Electric: 0.95% incremental savings in 2024, 0.95% in 2025, and 0.94% in 2026</p> <p>Natural gas: 0.67% in 2024, 0.68% in 2025, and 0.69% in 2026.</p>
New Jersey	1.6%	100%	Legislative	Relative: rolling	Yes	<p>In a June 2020 order (ORDER DIRECTING THE UTILITIES TO ESTABLISH ENERGY EFFICIENCY AND PEAK DEMAND REDUCTION PROGRAMS), the New Jersey Board of Public Utilities called for electric savings targets of 1.1% beginning in 2022 and ramping up to 1.45%, 1.8%, and 2.15% in each subsequent year. Gas utilities must achieve reductions of 0.75% (compared to the average use in the previous three years) within the next five years. Revised annual net savings targets for PY2024–2027 for state and utility programs, respectively, are established in an October 2023 Board Order (New Jersey PBU 2023).</p>
New Mexico	1.0%	69%	Legislative	Relative: fixed	No	<p>The state’s three public utilities must achieve 5% savings of 2020 retail sales by 2025 (~1% incremental annual savings). HB 291 (2019) directs the Public Regulation Commission to set additional targets through 2030.</p>
New York	2.0%	100%	Regulatory	Absolute	Yes	<p>Statewide 2025 target of 185 TBtus of end-use energy savings across all fuels. In January 2020, the NY PSC authorized annual incremental utility-specific savings targets that ramp up to 3% electric in 2025.</p>

State	Average annual incremental electric savings target (2020–2026)	% electric sales covered*	Authority	Basis type <sup>6</sup>	Also have gas EERS?	Current EERS policy
North Carolina	Combined EERS/RPS	100%	Legislative	Relative: rolling	No	Renewable Energy and Energy Efficiency Portfolio Standard (REPS) requires renewable generation and/or energy efficiency savings of 12.5% of 2020 retail sales in 2021 and thereafter. Energy efficiency is capped at 40% of the target.
Oregon	1.1%	61%	Regulatory	Absolute	Yes	Electric: Gross incremental targets average ~ 1.4% of sales annually for the period 2022–2025. Natural gas: 0.85% of sales annually for 2024–2025
Pennsylvania	0.6%	96%	Legislative	Absolute	No	Varying targets have been set for IOUs amounting to yearly statewide incremental savings of 0.6% for 2021–2026. EERS includes peak demand targets.
Rhode Island	1.3%	99%	Legislative	Absolute: all cost effective	Yes	Electric: Average incremental savings of 1.29% for 2024–2026 Natural gas: Average incremental savings of 0.85% for 2024–2026
Texas	0.2%	74%	Legislative	Rolling: relative	No	Electric utilities have peak demand reduction targets of 0.4% relative to the previous year. Energy savings targets of 0.2% of annual sales
Vermont	1.2%	98%	Legislative	Absolute	Yes	Electric: Annual incremental savings totaling 204,000 MWh over 2024–2026, or approximately 1.24% of annual sales Natural gas: Three-year annual incremental savings of 381,300 MMBtu spanning 2024–2026, or 1.1% of sales

State	Average annual incremental electric savings target (2020–2026)	% electric sales covered*	Authority	Basis type <sup>6</sup>	Also have gas EERS?	Current EERS policy
Virginia	1.2%	87%	Legislative	Absolute	No	The 2020 Virginia Clean Economy Act requires Dominion Energy to achieve 5% energy savings by 2025 relative to a 2019 baseline. Appalachian Company must achieve 2% by 2025, relative to a 2019 baseline. Statewide, these goals translate to average incremental annual savings of 1.2% over four years.
Washington	0.8%	83%	Legislative	Absolute: all cost effective	Yes	Under the 2019 Clean Energy Transformation Act, electric utilities in Washington must file a clean energy implementation plan every four years and include specific targets for energy efficiency.
Wisconsin	0.5%	100%	Legislative	Absolute	Yes	In November 2022, the WI PSC set four-year savings goals for the 2023–2026 period. The electric net lifecycle savings target is 22,173 GWh for 2023–2026, translating roughly to ~0.5% of incremental annual sales of a net basis.

\* “Sales covered” includes total retail sales of utilities obligated to achieve energy savings under the EERS policy. It does not account for customer opt-outs or similar policies that may place additional limits on customers served by energy efficiency programs.

Data on percentage electric sales covered and average incremental electric savings targets per year are from ACEEE's 2022 State Scorecard.

**Table 2. Next generation policy provisions**

State	Mandatory emissions reduction target or decarbonization goal	Electrification	Minimum targets for underserved customers	Energy burden maximums or affordability provisions
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California	Quantified goals for energy efficiency programs to help meet statewide emissions reduction targets	Legislature has appropriated funding for electrification programs. Multiple state and local policies promote electrification.	PG&E, Southern California Edison, and San Diego Gas & Electric collectively devoted about 41% of expenditures to a no-cost weatherization program for income-qualified customers.	Discounted rates for income-qualified households
Colorado	Emissions reductions from gas DSM programs must be measured as part of statewide GHG reduction goals.	Gas utilities need to implement clean heat plans. Incentives for gas equipment largely being phased out	25% of expenditures for gas DSM programs must be directed toward income-qualified households.	The state's Percentage of Income Payment Program caps electric bills at 6% of income (for homes with electric heating) or at 3% each for gas and electricity (for homes with gas heating).
Connecticut	The 2022–2024 Triennial Plan counts decarbonization as one of its priorities, encouraging actions like weatherization and heat pump adoption.	Promotion of all-electric new construction	The Home Energy Solution-Income Eligible program reduces energy burdens for income-eligible homes and helps the state achieve its goal of weatherizing 80% of homes by 2030.	The 2022–2024 Triennial Plan counts energy affordability as one of its priorities, encouraging actions like braiding funding to support low-income home repairs.
District of Columbia	Cumulative emissions reduction targets for district-wide energy efficiency and sustainability programs	The DC Sustainable Energy Utility offers rebates for both upgrading home electric panels and replacing gas appliances with electric alternatives.	30% of expenditures will go toward energy efficiency and renewable energy projects in buildings that serve low-income individuals.	N/A

Hawaii	Statewide goal of net zero emissions by 2045, at the latest; Hawaii Energy measures GHG emissions reductions as part of its performance targets.	N/A. Hawaii already consumes very little gas.	Hawaiian Electric and Hawaii Energy jointly administer a performance incentive mechanism to deliver energy savings to low and moderate-income customers.	Accessibility and affordability are key focus areas for performance metrics.
Illinois	Statewide goal of 100% clean energy by 2050	Goal of deploying 1 million electric vehicles (EVs) by 2030; additional provisions for building electrification	At least 40% of EV charging installation must be in low-income or environmental justice communities.	Statewide Percentage of Income Payment Plan for income-eligible households
Maine	Aligns building emissions reductions with state-level goals; sets up a carbon dioxide emissions budget	Allocates Regional Greenhouse Gas Initiative money for fuel switching	At least 10% or \$2.6 million (whichever is greater) must go toward low-income residential efficiency.	The state runs a Percentage of Income Payment Plan.
Maryland	Statewide goal of net zero emissions by 2045	Climate Catalytic Capital Fund supports transportation electrification and other clean energy projects.	About 20% of utility efficiency budgets are allocated to the Limited Income Energy Efficiency Program operated by the Department of Housing and Community Development. Recent legislation ramps up to require an average of 1% incremental savings per year in 2026 for eligible customers.	N/A

Massachusetts	Binding GHG reduction targets for 2030 (75% below 1990 levels) and 2050 (85% below 1990 levels)	Goal of installing 500,000 heat pumps by 2030; incentives for gas equipment phased out	At least 10% of funds for electric efficiency programs and 20% of funds for gas efficiency programs must go toward low-income households.	All regulated utilities have low-income rates.
Michigan	Statewide goal of 100% carbon neutrality by 2050	Utilities may file beneficial electrification plans, but there are no formal statewide electrification goals.	Electric utilities must spend at least 25% of funds, and gas utilities must spend at least 35% of funds on low-income households.	N/A
Minnesota	Goal of reducing GHG emissions by 50% below 2005 levels by 2030	Fuel switching is part of the energy savings goal.	Starting in 2024, public utilities must spend 0.6% of their gross operating revenue on low-income programs.	No statewide goals, but one utility (Xcel Energy) is working to limit energy burdens in certain census tracts
Nevada	N/A	N/A	At least 5% of energy efficiency program expenditures must go toward low-income households.	The state's Energy Assistance Program gives benefits to income-eligible households based on their energy dollar usage and their energy burdens.
New Hampshire	N/A	N/A	The 2024–2026 NH Statewide Energy Efficiency Plan sets specific spending and savings targets for income-eligible programs.	N/A

New Jersey	State program administrators must report GHG emissions reductions and determine how they align with broader state climate goals. A July 2023 BPU board order also directed the utilities to initiate building decarbonization start-up programs in direct support of the governor’s Executive Order 316, signed in February 2023.	Utilities are recommended, but not required, to pursue electrification under a 2020 order; a 2023 order accepted recommendations to advance building decarbonization programs to meet electrification goals.	EO 316 set a target of December 31, 2030, to electrify 400,000 additional dwelling units and 20,000 additional commercial spaces and/or public facilities statewide, and to make electrification-ready an additional 10% of residential units serving households earning less than 80% of area median income through the completion of necessary electrical repairs and upgrades	The state's Universal Service Fund offers benefits to income-eligible households with total energy burdens greater than 4% (for homes with electric heating) or with electric and gas energy burdens greater than 2% each (for homes with gas heating).
New Mexico	N/A	N/A	Utilities must spend at least 5% on low-income energy efficiency programs.	N/A
New York	Goal of 100% zero emissions from the electricity sector by 2040	Goal of installing heat pumps in 130,000 buildings by 2025. Incentives for gas equipment being phased out	At least 35% (and ideally 40%) of benefits from clean energy programs must go toward disadvantaged communities.	The Energy Assistance Program aims to cap energy burdens at 6% or lower.
Oregon	N/A	Electric companies must file applications for transportation electrification programs.	13% of funds collected by an electric company must go toward low-income weatherization.	N/A

Pennsylvania	N/A	The Act 129 Phase IV Implementation Order includes stakeholder discussion about beneficial electrification but does not require it.	5.8% of a utility’s portfolio savings goal must come from low-income programs.	N/A
Rhode Island	The state aims to achieve net zero emissions by 2050, with an interim goal of 45% reduction below 1990 levels by 2030.	N/A	N/A	The Comprehensive Energy Conservation, Efficiency and Affordability Act of 2006 sets up an energy affordability fund.
Texas	N/A	N/A	Utilities must spend at least 10% of their energy efficiency budget on low-income programs.	N/A
Vermont	The Energy Efficiency Modernization Act directs energy efficiency programs to reduce emissions from thermal energy and transportation.	Statewide goals of reducing emissions from thermal energy are fuel neutral.	Efficiency Vermont plans to invest \$20 million between 2024–2026 to serve low-income households.	N/A
Virginia	Goal of zero carbon emissions by 2050	N/A	At least 15% of energy efficiency spending must go toward low-income, elderly, or disabled individuals, or veterans. Savings targets for such programs should be at least 1% of average annual energy retail sales.	The state's Percentage of Income Payment Program aims to limit energy burdens to 6% or less.



Washington	HB 1257 (2019) pledges to maximize emissions reductions from the buildings sector but does not specify amounts or target dates.	Mandatory EV charging infrastructure for new buildings that provide on-site parking	N/A	N/A
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*EERS policies with next generation elements along with complementary policies are included in this table.*

## EERS energy savings

To evaluate how states with EERS policies have performed to date, we collected data on energy savings goals and utility performance for the states and DC with EERS policies in effect in 2023 from state legislation and regulatory orders. Savings targets are from the 2022 ACEEE *State Energy Efficiency Scorecard* (Subramanian et al. 2022). Savings information was obtained from EIA Form 861 data (EIA 2024a).

EERSs continue to be one of the most effective policies to spur energy efficiency savings in states. For example, a regression analysis on savings from utility programs found that while full decoupling mechanisms or utility performance incentives have a statistically significant impact on state energy savings, EERS policies combined with dedicated energy efficiency funding have the largest impact (Sergici and Irwin 2019). In 2023, states with an EERS in effect achieved on average incremental electricity savings of 0.85% of retail sales, compared to average savings of 0.28% in states without an EERS (EIA 2024a, 2024b).

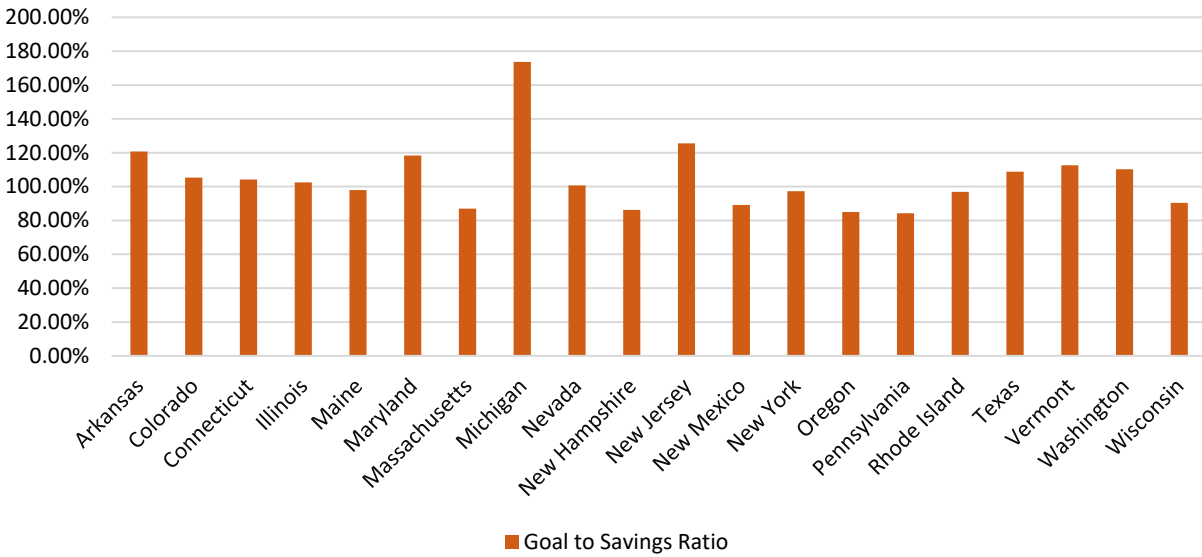
In 2023, 16 of the top 18 electricity-saving states had an EERS in place.<sup>7</sup> In 2023, states with an EERS accounted for 59% of overall electric sales in the United States and contributed to 82% of total utility savings. Utilities with these policies reported saving about 19.5 million MWh in 2023 (EIA 2024a, 2024b).

## EERS energy savings relative to goals

EERS policies establish energy savings goals. Our 2019 review (Gold, Gilleo, and Berg 2019), as well as earlier ACEEE reviews, compared actual savings relative to goals. In 2019, we found that on average actual savings exceeded targets—the utilities were able to over-deliver. Combined, they achieved 114% and 124% of aggregate savings targets across all states with an EERS in 2016 and 2017, respectively. For this study, we repeated this analysis using 2023 data; results by state are illustrated in figure 3. On average, states are achieving 105% of their targets when averaging individual state results. On a cumulative basis across all the states with data, actual savings are 101% of targets. Individual state results vary from 84%–174%. Local experts say that low savings are sometimes due to bad years, and in some states, targets are set for three-year periods, with savings steadily increasing over this period. In some states, 2023 is early in the period and savings are low. The high end of the range is Michigan, where there are substantial performance incentives for exceeding savings targets.

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<sup>7</sup> The two exceptions are Oklahoma and Indiana, the latter being a former EERS state that has continued to run many programs.



*Figure 3. Goal to savings ratio for states with electric savings targets, using 2023 data. In a few cases we could not obtain sufficient data to conduct the analysis.*

In two states (Hawaii and Minnesota), utility programs account for the majority of savings achieved, but the EERS also includes other savings such as from building codes, equipment efficiency standards, and market adoption of efficiency measures without utility involvement. Hawaii prepares an evaluation of savings from all of these measures every five years. The most recent evaluation is summarized in figure 4 and shows how they are meeting their standard and the relative contribution of different savings streams.

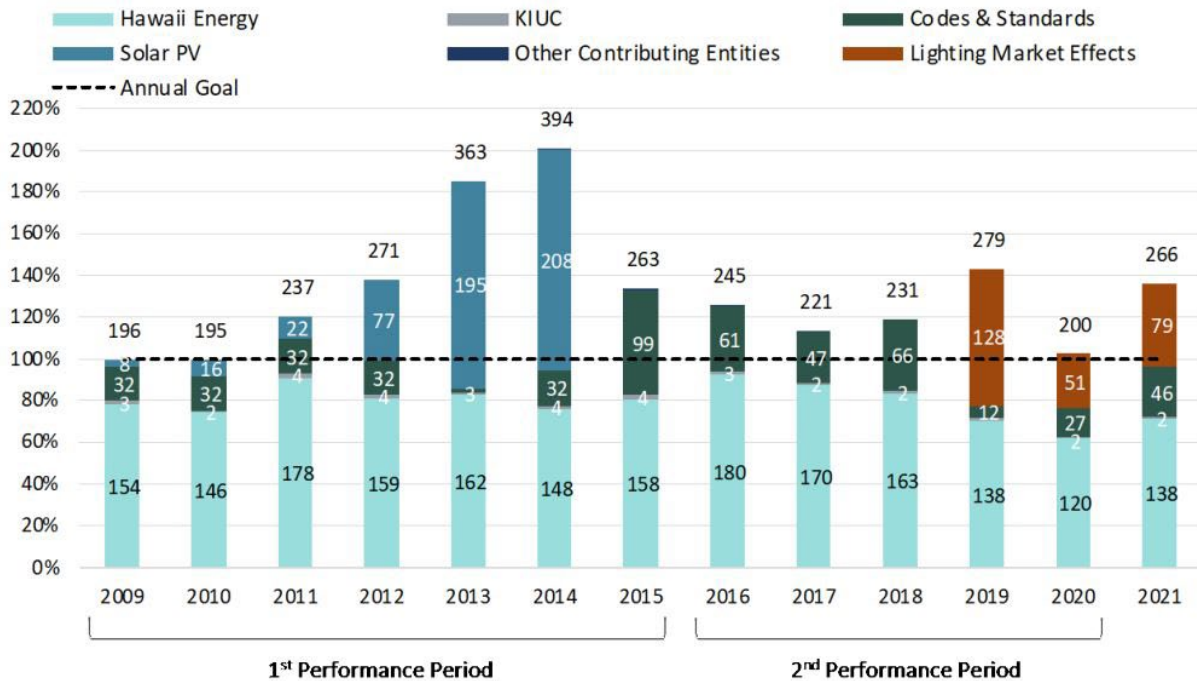


Figure 4. Annual incremental electricity savings relative to EERS target in Hawaii by year and savings stream. The changes in some measures, such as solar PV, reflect changes in legislation and policy. Hawaii Energy runs utility-funded programs. Source: Hawaii PUC 2023.

## EERS programs to serve low-income customers

Of the next generation elements, the only one with sufficient performance data is for low-income programs. For other next generation elements, performance data are too limited to permit analysis, which is due to the limited number of states with next generation elements or the lack of evaluation data from more recent policies.

Many EERS states encourage or require explicit programs to serve low-income customers, as these customers often live in inefficient homes and apartments but can least afford high energy bills. Of the 26 states plus DC, 21 have the next generation feature of specific targets for serving low-income customers, such as minimum levels of spending and/or targets on number of households served. In ACEEE's 2022 *State Energy Efficiency Scorecard*, we collected data on state low-income program spending per eligible low-income customer. Across all states, low-income program spending averaged about \$14 per eligible customer. Among the EERS states, this figure was \$26, nearly twice as high. Among the 21 EERS states with explicit low-income targets, the average spending per customer was \$27, only slightly higher. This is the case because a few of the states have low targets and spending (e.g., New Mexico, Nevada, and Texas) and a few states with high spending do not have explicit low-income targets (e.g., Rhode Island).

## Major factors driving policy change

The original 2019 ACEEE report on next-generation EERS found that there were four main factors driving EERS policy change in the five states they profiled. Those factors were decarbonization, cost, equity, and grid value (Gold, Gilleo, and Berg 2019). From our research, these factors continue to drive changes in the EERS policy landscape. Policy targets have the effect of incentivizing certain behaviors to achieve the prescribed requirements, which implicitly disincentivizes behaviors tied to other priorities. While EERS policies have historically been very successful at driving utilities to achieve higher incremental annual savings, traditional EERS policy targets have sometimes led them to favor low-cost, short-term efficiency savings, which can be at odds with new priorities that are now often driving utility energy policy and next generation EERS targets.

Since the 2019 EERS report, climate change has become a more pressing policy issue for many states. As of 2023, 24 states plus the District of Columbia have set GHG emissions reduction targets, and 32 states have published climate action plans. Nearly 70% of these states passed or updated their climate action plans between 2019 and 2023, with most plans having been released in 2021 and 2022 (C2ES 2023). As of March 2024, this number increased to 45 states, aided by funding from the U.S. Environmental Protection Agency (US EPA 2024a). This growing number of updates to climate action plans suggests growing concerns over climate change mitigation. Energy efficiency has the potential to halve nationwide GHG emissions by 2050, so aligning energy efficiency portfolios with decarbonization goals can help states reach their climate targets (Specian and Gold 2021).

Despite most states having some sort of emissions reduction target or climate action plan, not all EERS policies explicitly tie energy savings to decarbonization. Currently, only 16 of the 26 EERS states<sup>8</sup> plus DC link energy efficiency to statewide decarbonization goals. A notable example is LD 1559 in Maine, which sets a base annual carbon dioxide emissions budget and requires utilities to file triennial energy efficiency plans. Even though broad decarbonization goals may influence specific energy efficiency targets, most other EERS policies do not specify such goals.

In contrast, equity concerns have become more apparent in state energy efficiency policies. EERS policies may not explicitly account for equity provisions, but many states that have an EERS are working to advance equity through other programs and legislations. Within the past five years, states have adopted environmental justice goals, set minimum targets for underserved customers, and convened stakeholder advisory bodies to influence decision-making (Berg and Mah 2023). Many of these provisions relate to the practice of fairly distributing benefits to all community members (ACEEE 2024a). Distributional goals in state policy can be an important step for achieving equitable outcomes of energy efficiency programs, but goal setting alone is not enough to ensure equity.

It is becoming more common for EERS policies to require minimum spending or minimum energy savings targets for low-income customers, with 21 of the 27 EERS states including such a goal, plus two states (California and Maryland) where funding for low-income funding is directly allocated by the public utilities or service commission. Savings targets are less common, as they are more difficult to track than a specific dollar amount. However, savings targets are important supplements to spending targets, as investing a set amount of money in low-income programs may not guarantee distributional equity

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<sup>8</sup> While Connecticut and Washington state both prioritized emissions reductions from buildings, they are not included in this number due to a lack of specific targets.

benefits. Going forward, states should consider requiring utilities to account for multiple factors when setting a spending target for low-income customers. Some examples include socioeconomic characteristics of their service territories, percentage of income-qualified customers to total participants, and the total amount of the utility's portfolio investments (Reames, Stacey, and Zimmerman 2019). Incorporating these factors into state EERS policies can improve a state's ability to fulfill its equity goals.

## Next generation case studies

In this section, we profile five states that have adopted important next generation elements—Illinois, Massachusetts, Michigan, Minnesota, and New York. These case studies discuss both EERS and complementary policies, as there is often overlap between the two. We also more briefly discuss Maryland, which is now incorporating next generation elements into its EERS. The Massachusetts, Minnesota, and New York case studies build on and update case studies in our 2019 Next Generation EERS report (Gold, Gilleo, and Berg 2019), while the other case studies cover other states that have adopted next generation legislation in recent years. At the beginning of each case study, we summarize basic information on the relevant policies as well as next generation features that might be part of the EERS or complementary state policies.

### Illinois

Relevant policies	<ul style="list-style-type: none"> <li>• SB 1918 (2009)</li> <li>• Future Energy Jobs Act: SB 2814 (2017)</li> <li>• Illinois Power Agency Act: SB 1592 (2021)</li> <li>• Climate and Equitable Jobs Act: SB 2408 (2021)</li> </ul>
Mandatory energy savings	Electricity: 12.2% <sup>9</sup> or 15.7% <sup>10</sup> cumulative persisting annual savings for 2024. These values grow over time. <sup>11</sup> Such incremental annual savings cannot include replacement savings from measures installed in previous years that are expiring.
Performance incentive mechanism	Utilities covered by the EERS can have their return on investment increased or decreased based on the energy savings they achieve relative to their energy savings targets.
Mandatory emissions reduction targets or decarbonization goal (not part of EERS)	Statewide goal of 100% clean energy by 2050

<sup>9</sup> For electric utilities that serve between 500,000 and 3 million customers

<sup>10</sup> For electric utilities that serve over 3 million customers

<sup>11</sup> Ameren's grows by 0.9% of sales each year through 2025, then by 0.6%; ComEd's grows by 1.3% annually through 2025, then by 0.9% per year.

Beneficial electrification goals (next generation)	Goal of increasing statewide electric vehicle (EV) adoption to 1 million by 2030. There are also provisions in the electric efficiency statute allowing a portion of electric savings goals to be met with electrification of buildings (e.g., heat pumps), with site Btu savings expressed in MWh equivalents. At least 25% of such claimed electrification savings must be from low-income electrification. For 2022–2025, only 5% of electric savings can be from electrification, with that growing to 10% max for 2026–2029, and 15% thereafter.
Minimum targets for underserved customers (next generation)	Under the 2021 law, electric utilities that file beneficial electrification plans must invest at least 40% in deploying EV charging equipment to low-income and environmental justice communities.
Energy burden maximums or affordability provisions (not part of EERS)	The state runs a Percentage of Payment Income Plan to make energy bills more affordable for residents who meet low-income eligibility requirements. Though not statutory, the ICC has approved significantly discounted rates for low-income gas customers; the electric utilities have filed proposals to do the same or are expected to file soon.

Illinois established an EERS with the passage of the Illinois Power Agency Act in 2009. This law required incremental annual savings for both electric and gas utilities. The law also directed utilities to include energy efficiency measures for low-income<sup>12</sup> households that were proportionate to the low-income households' share of state-level annual utility revenues. Illinois then updated its EERS in 2017 with the Future Energy Jobs Act. The new law outlined cumulative persisting annual savings for electric utilities, setting different goals based on the number of customers in a utility's service territory. The cumulative persisting savings goal is unique to Illinois and only counts savings beyond what is needed to maintain savings from prior years. Under this metric, savings from long-lived measures count for many years, but savings from short-lived measures need to be replaced; however, this replacement does not get rewarded with performance incentives. The metric requires prior year savings to be maintained and only provides performance incentives for additional savings above and beyond the prior year.

Illinois's Climate and Equitable Jobs Act (CEJA) is the state's most ambitious energy efficiency legislation to date, simultaneously updating the state's EERS and committing Illinois to more ambitious and equitable energy goals. Passed in 2021, CEJA committed Illinois to achieving 100% clean electricity by 2050. CEJA modernized the state's EERS to allow beneficial electrification savings. In addition to updated energy savings goals, the law encouraged vehicle electrification, beneficial electrification for buildings, and decarbonization of electric generating units. CEJA launched multiple programs to build up Illinois's clean energy workforce, such as the Clean Jobs Workforce Network Program that created regional training hubs across the state, and the Returning Residents Clean Jobs Training Program for previously incarcerated individuals.

A commitment to energy equity is apparent throughout CEJA. The Illinois Clean Jobs Coalition was instrumental in shaping CEJA and supporting its passage. This diverse coalition of environmental

<sup>12</sup> Defined as below 150% of the federal poverty level

organizations, healthcare workers, advocates, and other stakeholders pushed for precise decarbonization targets, greater investment in communities of color, and expansion of Illinois's Solar for All program (Illinois Clean Jobs Coalition 2022). Many of CEJA's workforce programs prioritize equity-focused populations,<sup>13</sup> notably displaced energy workers who previously worked in the fossil fuel industry. CEJA also includes a Displaced Energy Workers Bill of Rights to ensure a fair job transition for former fossil fuel workers.

Since CEJA's passage, the state has been working to implement multiple policy goals. Ameren Illinois and ComEd submitted beneficial electrification plans less than a year after CEJA was signed into law (ICC 2024). In May 2023, the Illinois Department of Commerce & Economic Opportunity published a Clean Jobs Curriculum Framework, which contains learning goals and training objectives for various clean energy professions (Illinois Department of Commerce & Economic Opportunity 2023). While utilities are making progress with their energy efficiency plans, Illinois will likely need to scale CEJA's workforce programs before more policy goals can be implemented.

The Illinois legislature is considering additional changes to the state's programs, with possible enactment in early 2025.<sup>14</sup>

## Massachusetts

Relevant policies	<ul style="list-style-type: none"> <li>• Green Communities Act (2008)</li> <li>• An Act to Advance Clean Energy (2018)</li> <li>• An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy (2021)</li> </ul>
Mandatory energy savings	Requirement for utilities to acquire all cost-effective efficiency savings. Specific electric goals are net savings of 1.08–1.25% over the 2022–2024 period. Other goals relate to GHG emissions reductions and serving low-income customers, as noted below. Goals for 2025–2027 now pending DPU review
Performance incentive mechanisms	Utilities covered by the EERS can earn incentives based on the savings achieved, net benefits, and additional explicit goals. For 2022–2024, there are specific incentives for equity and electrification (MA EEAC 2024).
Mandatory emissions reduction targets or decarbonization goal (not part of EERS but used by utilities as part of program planning)	<p>State Decarbonization Binding Targets</p> <ul style="list-style-type: none"> <li>• 2030—at least 50% GHG reduction below 1990 levels</li> <li>• 2050—at least 85% GHG reduction to net zero</li> </ul> <p>(The state could be sued if it fails to meet these targets.)</p>

<sup>13</sup> This definition includes low-income households; Black, indigenous, and people of color (BIPOS) communities; women; LGBTQ+ individuals; people with disabilities; and dependents of displaced energy workers.

<sup>14</sup> The original introduced bill is here: <https://www.ilga.gov/legislation/103/SB/10300SB3637.htm>. We have been told that many changes have been made but are not yet public.



Beneficial electrification goals (next generation)	Targeting 500,000 heat pumps by 2030
Minimum targets for underserved customers (next generation)	At least 10% of expenditures for electric efficiency programs and at least 20% of expenditures for gas efficiency programs must go toward low-income households. Specific targets for the number of low- and moderate-income customers served are included in the three-year plans.
Energy burden maximums or affordability provisions (not part of EERS)	Programs provide 100% cost coverage for weatherization and heating systems, including electrification and associated barrier remediation for all income-eligible customers. Enhanced incentives are also available for moderate-income customers. Eversource, one of the major utilities in the state, has explicitly targeted households with high energy burdens for its low-income programs (Lin et al. 2020). The Massachusetts DPU has approved low-income discount rates for several utilities.

The 2008 Green Communities Act drives energy savings goal setting and program development in Massachusetts. It requires electric and gas utilities to pursue all cost-effective energy efficiency, eliminating energy waste whenever it is more cost effective than buying additional supply. The law also requires energy distribution companies and municipal aggregators to jointly prepare electric and gas energy efficiency plans every three years. These programs support the state's Global Warming Solutions Act (GWSA), which aims to reduce GHG emissions by 50% (relative to 1990 levels) by 2030 and 85% by 2050. The law calls for a collaborative planning process soliciting feedback from the Energy Efficiency Advisory Council (EEAC) and the public. Program administrators (PAs) must submit draft efficiency plans for review and comment every three years, followed by an updated official filing to the Department of Public Utilities (DPU) that addresses the EEAC's comments. The DPU determines final approval (Gold, Gilleo, and Berg 2019).

In August 2018, Gov. Charlie Baker signed H. 4857, An Act to Advance Clean Energy, ushering in a slate of ambitious updates to the state's renewable energy policy framework, along with significant changes that impact design and administration of energy efficiency programs. For energy savings programs, the bill expanded the list of eligible measures and technologies that efficiency plans may include, adding energy storage, renewable energy, and strategic electrification that results in cost-effective reductions in GHG emissions, regardless of whether it increases overall electricity consumption. Electric efficiency plans were broadened to energy efficiency plans to reflect a focus on electrification and reducing overall energy usage and emissions, including for delivered fuels (Gold, Gilleo, and Berg 2019).

In 2021, the state legislature enacted SB9, An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy (Massachusetts Legislature 2021). This law requires the state to make five-year roadmap plans to reduce GHG emissions leading up to 2050, starting with the year 2025. Each plan must quantify emissions reductions from eligible gas and electric energy efficiency programs. The state must also propose actions for mitigating negative impacts to low- and moderate-income households and environmental justice communities. The law directs funding for clean energy equity training for certified minority-owned and women-owned small business enterprises, individuals living in environmental justice communities, and current and former workers from the fossil fuel industry. The law also directs incentives to be phased out by 2024 for equipment using fossil fuels, with a limited exception for low-income households.

A new climate bill was enacted in November 2024 that limits work on gas pipelines, makes it easier to site and build renewable energy systems, and allows gas utilities to build networked geothermal energy systems to heat and cool homes. Under this new law, if gas utilities wish to expand their service or replace pipelines, the Department of Public Utilities (DPU) will now be required to evaluate whether expansion furthers the Commonwealth’s climate goals, whether it creates stranded assets with high costs for ratepayers, and whether an alternative to gas service could offer substantially similar service. (Klein 2024). The bill also includes a provision to start an intervenor compensation fund.

The DPU has also been active in establishing policies to implement these laws. For example, in 2022, it approved a negotiated plan for PA programs covering the 2022–2024 period (Massachusetts DPU 2022). This plan continues the state’s commitment to decarbonization. The plan includes multiple actions to expand building electrification, especially for customers who heat their homes with oil, propane, or electric resistance. It includes all-electric new construction pathways and Passive House certifications, as well as targeted electrification outreach to customers who have already received weatherization. The plan also commits PAs to work with multilingual community organizations and translate materials into Spanish, Portuguese, and Chinese. And in 2024, the Massachusetts Interagency Rates Working Group (IRWG) was formed to advance near- and long-term electric rate designs that align with state decarbonization goals (Massachusetts DEP 2024).

Massachusetts’ programs continue to evolve. A new three-year energy efficiency and decarbonization plan covering 2025–2027 has been negotiated by the state’s program administrators and many interested parties. The plan includes \$5 billion in spending, of which 35% is for equity-focused programs, including for renters. There are specific targets to weatherize approximately 174,900 homes, including over 66,100 low- and moderate-income households and just under 46,700 rental units; support the installation of heat pumps in over 115,100 households, including over 22,200 low- and moderate-income households and over 12,900 rental units; reduce GHG emissions by just over 1.0 million metric tons of CO<sub>2</sub> equivalent, and deliver 183 million lifetime MMBtus in energy savings and just under \$12.6 billion in total benefits to customers (Mass Save 2024b). Relative to the 2022–2024 plan, spending is up about \$1 billion (including an increase of about \$800 million for equity programs), GHG emissions reductions increased by over 150,000 million metric tons, and heat pump installations increased by about 50,000 households (Mass Save 2024a; MA EEAC 2021).

In addition, while not part of the EERS, the state has passed various other policies to advance energy efficiency and decarbonization, including strong building codes for new construction (Nadel and Janssen 2024), performance standards for existing buildings in Boston and Cambridge (Nadel and Hinge 2023), and a 10-community pilot requiring all-electric new construction and major renovations (Lisinski 2023). And the state is now developing a “Clean Heat Standard” to gradually eliminate emissions associated with fossil fuel combustion in buildings (Massachusetts DEP 2023). All of these policies have been enabled in part by the programs implemented under the EERS, such as programs promoting new construction at “passive house” levels, enabling some of these practices to be included in the state’s building code.

These various programs and policies are achieving significant results. Massachusetts utilities were ranked first and tied for second in the ACEEE *2023 Utility Energy-Efficiency Scorecard* (Specian et al. 2023). Much of new construction is covered by building codes that are moving toward “zero net energy” (Nadel and Janssen 2024); utility new construction programs that specifically targeted Passive House and other advanced features have aided this transition. And over 80,000 homes have received utility- and state-funded heat pump rebates (Nadel 2024). The statewide low-income LEAN program, operated in conjunction with local community organizations, has weatherized 23% of all one- to four-unit income-eligible households (ACEEE 2024b).

## Michigan

Relevant policies	<ul style="list-style-type: none"> <li>• 2008—Clean, Renewable, and Efficient Energy Act (PA 295)</li> <li>• 2016—PA 341 and PA 342 carried forward current 1% electric and 0.75% natural gas targets until 2025.</li> <li>• 2022—Michigan Healthy Climate Plan (PA 231–235)</li> <li>• 2023—SB 273, increasing the minimum energy savings requirement for both electric and gas utilities (from 1% to 1.5% of annual sales for electricity, and from 0.75% to 0.875% for gas) for each year starting in 2026</li> </ul>
Mandatory energy savings	<p>Electricity: 1% per year through 2025; increases to 1.5% per year in 2026 and beyond</p> <p>Gas: 0.75% per year through 2025; increases to 0.875% per year in 2026 and beyond</p>
Performance incentive mechanism	Law includes shareholder incentives for reaching and exceeding energy savings targets
Mandatory emissions reduction targets or decarbonization goal (not part of EERS)	Statewide goal of 100% carbon neutrality by 2050, not binding
Beneficial electrification goals (next generation)	2023 law allows utilities to file beneficial electrification plans to provide electrification programs to customers; however, no specific electrification goals are identified.
Minimum targets for underserved customers (next generation)	Electric utilities must spend at least 25% of their energy efficiency budgets on low-income programs; for gas utilities, the minimum is 35%.
Energy burden maximums or affordability provisions	No specific targets but considerable focus on equity issues

Michigan enacted an EERS in 2008 as part of the Clean, Renewable, and Efficient Energy Act (PA 295). This law set a 1% per year energy savings target for electric utilities and 0.75% per year for gas utilities. The law also included shareholder incentives for reaching and exceeding these targets. As a result, the major Michigan utilities ramped up efficiency programs, exceeding the minimum targets.

In 2022, the Michigan Healthy Climate Plan was adopted, establishing a nonbinding goal of 100% carbon neutrality by 2050, and a clean energy standard for electricity generation of 80% by 2035 and 100% by 2040. The package also includes notable investment in electric vehicles and a provision allowing the PSC to consider climate, environmental justice, and affordability for long-term energy planning.

In 2023, the legislature passed a package of bills to help implement the Michigan Healthy Climate Plan. SB 273 (PA 229) raised the energy saving standard for electric utilities to 1.5% in annual savings, with an incentive structure to encourage utilities to reach 2.17%. Similarly, it raises the standard for gas utilities

to 0.875% in annual savings, with an incentive structure to encourage utilities to reach 1.25%. In addition, it encourages (with an additional incentive) gas utilities to direct at least 67% of their program spending to measures that reduce heating load (air sealing, insulation, efficient windows or doors, ventilation systems, heating distribution systems, and heating system controls). It also returns municipal and cooperative utilities into the EERS standard (Wazowicz 2023).

Another provision allows utilities to promote efficient electrification, with “efficient electrification” defined as measures that reduce total energy consumption at the premises, reduce GHG emissions over the life of the measures, and for residential and commercial customers interconnected at secondary voltage, provides annual average energy cost savings. Starting in 2025, they can file an optional “efficient electrification measures plan” along with their required “energy waste reduction plan” (Michigan’s terminology for energy efficiency) as part of a new concept of a “customer energy optimization plan.”

This bill also increases low-income spending requirements to the values noted in the table above and requires utilities to reduce barriers to ensure more low-income customers can participate in the programs. The bill adds requirements that large utilities (those with more than 50,000 customers) must invest and develop a diverse energy efficiency workforce, including an emphasis on hiring from low-income, environmental justice, and energy transition-impacted communities.

The major provisions take effect in 2025 and 2026, so it is too early to assess the impact of these changes.

## Minnesota

Relevant policies	<ul style="list-style-type: none"> <li>• Next Generation Energy Act (2008)</li> <li>• Energy Conservation and Optimization Act (2021)</li> </ul>
Mandatory energy savings	2.5% of electric and natural gas retail sales from utility programs and a variety of other measures, such as building codes, equipment efficiency standards, and consumer investments without utility involvement
Performance incentive mechanism	Utility shareholders receive a small portion of program net benefits, with the utility share increasing as the ratio of program savings to EERS goals increases.
Mandatory emissions reduction targets or decarbonization goal (next generation)	Target of reducing emissions 50% by 2030 (from 2005 levels) comes from Minnesota’s Climate Action Framework (2022) and Minnesota statute (as amended in 2023)
Beneficial electrification goals (next generation)	Fuel-switching is included as part of the energy savings goal for gas utilities. Electric utilities may also promote electrification, but a metric is not specified in the legislation.
Minimum targets for underserved customers (next generation)	Starting in 2024, public utilities must spend 0.6% of their gross operating revenue on low-income programs.

Energy burden maximums or affordability provisions (next generation)

Xcel (a major utility) proposed geographic targeting of bill discounts to census tracts with a high density of low-income households with high energy burdens, seeking to limit energy bills to 4% of average income in the tract (CEE 2024). This was approved as a two-year pilot program.

Minnesota's long-standing Conservation Improvement Program (CIP) provides the state's energy efficiency policy framework. Since 1991, Minnesota's utilities have been required to spend a set percentage of gross operating revenue on energy efficiency: 0.5% for natural gas utilities, 1.5% for electric utilities, and 2% for a public electric utility that operates a nuclear plant (Xcel). In 2007, the Next Generation Energy Act (Minnesota Legislature 2007, § 216B.241) established the state's EERS to become the primary policy driver for energy efficiency, mandating specific utility energy savings goals of 1.5% of annual retail sales for electricity and natural gas. However, utilities could also request that this goal be adjusted to as low as 1% per year if warranted, based on experience, customer types, cost effectiveness, and other factors (Gold, Gilleo, and Berg 2019).

In 2013, HF 729 went further to clarify that the state energy policy goal of saving 1.5% of retail energy sales annually is a floor, not a ceiling (M.S. § 216B.2401). For electric utilities, at least 1% of energy savings must come from customer-side efficiency improvements; the remaining 0.5% may come from energy codes, appliance standards, and efficiency enhancements to each utility's generation, transmission, and distribution infrastructure (M.S. § 216B.2401). Minnesota Statute 216B.241 (Subdivision 7) also requires both natural gas and electric utilities to provide a minimum level of spending for low-income energy efficiency programs. Municipal and public gas utilities must spend at least 0.2% and 0.4%, respectively, of their recent three-year average gross operating revenue from residential customers on low-income programs. Electric utilities must spend at least 0.2% of their gross operating revenue from residential customers on low-income programs.

In 2021, a major update of the CIP program was enacted with passage of the Energy Conservation and Optimization (ECO) Act of 2021: HF 164 (Minnesota Legislature 2021). This law pledged Minnesota to achieve 2.5% of annual energy savings from annual retail electricity and gas sales. These savings can be achieved through utility energy efficiency programs, rate design, fuel-switching programs, advanced statewide energy codes, behavior change programs, and other methods. Thus, this law not only increases energy savings targets but also expands the range of programs that can be counted, including fuel-switching programs. Reducing utility costs, improving business competitiveness, creating more energy jobs, reducing dependence on foreign fuel, and combating climate change and pollution were all motivators for this legislation. If an energy conservation program would not be cost effective, then a public utility is not required to make such investments.

Another major change under this legislation is to ramp up low-income programs. "Low-income households" are defined as households that earn 60% or less of the state median household income. Initially, under this legislation, both gas and electric utilities had to spend at least 0.2% of their gross operating revenue on low-income customers. Starting in 2022, gas utilities had to spend 1% of their most recent three-year average gross operating revenue from residential customers for low-income programs, and electric utilities had to spend 0.4% of gross operating revenue on low-income programs. The electric utility share increased to 0.6% of gross operating revenue in 2024.

To meet this spending requirement, utilities can contribute to an energy and conservation account. Contributions to this account must be used for energy efficiency programs that target low-income

customers, including renters. When setting up a low-income energy efficiency program, the commissioner (head of the Department of Commerce) must consult multiple stakeholders, including nonprofits and representatives from community-based organizations. The law also establishes a stakeholder group to determine multifamily buildings' eligibility for low-income programs. Up to 15% of a utility's low-income spending can go toward weatherization readiness measures. Utilities can also fund weatherization readiness measures by contributing to the state's Healthy Asbestos Insulation Removal (AIR) account.

Implementation of the ECO legislation is still in its early stages, with plans filed in 2023 and implementation beginning in 2024. As a result of the planning and filing process, as well as efforts to coordinate utility programs with federal programs under the Inflation Reduction Act, interested parties worked together to get the legislature to refine several ECO details in 2023 and 2024. The definition of low income was increased to 80% to align with federal guidelines, and language on electrification plans was streamlined to not require hourly emissions modeling. While data on participation in 2024 are not yet available, according to our interviews, interest in electric heat pump incentives has been high.

## New York

Relevant policies	<ul style="list-style-type: none"> <li>• Climate Leadership and Community Protection Act (2019)</li> <li>• Various PSC orders</li> </ul>
Mandatory energy savings	185 trillion Btus by 2025 from all fuels; 3% electric savings over 2019–2025 period
Performance incentive mechanism	Varies by utility but typically includes share of savings, deeper savings, and outcome-based metrics (e.g., for beneficial electrification) (NYPSC 2023b)
Mandatory emissions reduction targets or decarbonization goal (not part of EERS)	By 2030, reduce GHG emissions by 40% below 1990 levels and produce 70% of electricity from renewable sources By 2040, reduce emissions from the power sector by 100%
Beneficial electrification goals (next generation)	Convert over 130,000 buildings to heating with heat pumps by 2025
Minimum targets for underserved customers (next generation)	Disadvantaged communities must receive 35% of the benefits of clean energy programs, with a goal that these communities receive 40% of the benefits.
Energy burden maximums or affordability provisions (next generation)	The NY PSC regulates the Energy Assistance Program for low-income discounts, targeted to a 6% energy burden (NYDPS 2023). The state also announced a 1,000-customer pilot to cap energy bills for households that participate in the Empower+ energy efficiency program (New York Governor's Office 2024).

New York's energy efficiency targets, called the Energy Efficiency Portfolio Standard (EEPS), were created by the Public Service Commission (PSC) in 2007 and authorized through 2015. They originally set

separate targets for kWh and therms, and individual targets for each IOU and for the New York State Energy Research and Development Authority (NYSERDA). In 2015, the PSC reauthorized energy efficiency programs as part of the Reforming Energy Vision (REV) process, establishing a new framework for energy efficiency programs of electric IOUs. The commission extended that framework to gas utilities later in 2015. In this framework, programs would transition over time to market- and value-based approaches, with utilities required to submit Energy Efficiency Transition Implementation Plans (ETIPs) that detailed how energy efficiency portfolios would achieve PSC-authorized energy savings targets. The ETIP process provided stability but not growth in funding from 2015 to 2018, until the commission approved expanded energy efficiency activities in several rate proceedings. The PSC did not change the structure of goals at the time (Gold, Gilleo, and Berg 2019).

In 2018, DPS and NYSERDA published the New Efficiency: New York (NENY) white paper, which established a more ambitious 2025 energy efficiency target for New York State and proposed a comprehensive initiative to meet that target. The proposed statewide target was 185 TBtus of site energy reductions relative to forecast energy consumption in 2025, including savings beyond customer-funded energy efficiency programs from the utilities and NYSERDA's Clean Energy Fund (CEF) portfolio. Driven by the state's desire to reduce emissions from all sources, the goal is set across all fuel sources (electricity, natural gas, heating oil, and propane) and market segments in the buildings and industrial sectors. Underneath the overall goal, the paper called for subtargets for electricity savings of 30,000 GWh statewide, equivalent to 3% of IOU sales in 2025. The paper also proposed dedicating at least 20% of any new incremental public investment in energy efficiency to the low- and moderate-income sector and setting a separate goal to support fuel-switching through heat pumps. Later in 2018, the PSC issued an order that built on and largely retained the key elements of the NENY white paper. It adopted increased efficiency targets for the IOU utilities, with overall goals structured in trillion Btus. The order lists additional savings goals alongside the overall target for electricity savings and heat pumps, as well as spending requirements for low- and moderate-income initiatives. The New York utilities, in consultation with NYSERDA, filed detailed electric, gas, and heat pump targets and budgets through 2025 (Gold, Gilleo, and Berg 2019).

In 2019, the legislature incorporated and built upon the existing NENY plans to set statewide emission reduction goals. The Climate Leadership and Community Protection Act (New York Senate 2019) pledges New York to increase energy efficiency levels by 23% above 2012 levels by 2030. The law sets a goal for disadvantaged communities to receive 40% of the overall benefits from clean energy investments. The law establishes multiple advisory panels and working groups on special topics that provided input into the interim review that is discussed below; this includes the Climate Justice Working Group that is still operating. To meet the state's GHG reduction goals, the state climate action council developed a scoping plan that lists mitigation measures, which encourages multiple measures to reduce emissions from buildings, including beneficial electrification, stronger building energy codes, stronger appliance standards, and disclosure of energy efficiency in home sales. In 2023, the New York legislature enacted a bill directing that, as of specific dates, new construction be all-electric (Urban Green 2023). This was aided by efforts to build the state's heat pump experience and contractor base under the EERS program.

In 2022, the NYPSC began an interim review of progress toward the 2025 goals (NYPSC 2023a). The interim review looked at program performance in different areas and began considering long-term goals. For electric programs not serving low- and moderate-income customers, the interim review found programs on track to achieve goals but raised the question if, going forward, some program types, such as lighting programs, should be deemphasized to provide more resources for other efforts. For gas programs not serving low- and moderate-income customers, the review found only limited progress in moving toward an emphasis on envelope measures but noted that envelope measures can be expensive

and raise budget issues. For low- and moderate-income programs, the review also found that, overall (for most but not all utilities), programs were not on track to achieve goals, noting budget and other issues. For heat pump programs, the review found that only 15% of participating homes removed their fossil fuel systems. Based on these findings, the PSC directed that, as of 2026, at least 85% of program budgets should be devoted to strategic measures, meaning building envelope and electrification-readiness measures, preferably with efficiency and electrification done together or after efficiency. As of 2026, the PSC will prohibit customer incentives for lighting, plug-in appliances, and natural gas-fired equipment and place some restrictions on home energy report programs and utility marketplaces (NYPSC 2023a).

Since the initial interim review decision, the PSC has established an overall budget for the energy efficiency and beneficial electrification programs (about \$1 billion per year for 2026–2030) and asked utilities to file programs in accordance with this budget and other guidance from the interim review. As of this writing, the NYPSC has not ruled on these plans.

Meanwhile, current programs continue to make significant progress. In 2023, 26,500 heat pump projects were installed, of which 68% were for whole-home systems. In 2024, utilities are incentivizing only whole-home systems for one- to four-unit dwellings, and some utilities are encouraging the decommissioning of fossil fuel systems. By the start of 2024, there were 1,120 participating contractors in the program. As of the end of 2023, the program had achieved 240% of its six-year energy savings target (Central Hudson Gas & Electric Corporation et al. 2024). Likewise, as of September 2023, nearly 210,000 low-income and 46,000 moderate-income households have received energy efficiency upgrades through EmPower+ and its program predecessors (US EPA 2024b).

## Maryland

While not a full case study, Maryland also provides some useful insights. Maryland’s EERS is implemented through the EmPOWER programs. As of May 2024, the EmPOWER programs have achieved 16,237,812 MWh of savings (Public Service Commission of Maryland 2024). The Maryland legislature changed prior EERS legislation to direct the Maryland Public Service Commission (PSC) to incorporate next generation elements in those programs, including both savings targets for low-income households and GHG reduction requirements. In 2011, the PSC directed low-income programs to be implemented by the state’s Department of Housing and Community Development (DHCD), with costs paid by utilities (US EPA undated). In 2022, the legislature directed that low-income programs ramp up to achieve on average 1% incremental savings each year by 2026. In December 2023, the PSC authorized the 2024–2026 energy efficiency programs, including low-income programs administered by DHCD. In this program plan, the DHCD low-income program budget increases from \$34 million in 2023 to \$167 million in 2026, and expected electricity savings increase from 14 million to 60 million kWh (Maryland DHCD 2023).

The legislature subsequently specified targets for GHG reductions by passing HB 864, and the utilities filed updated proposals incorporating those targets on August 15, 2024. The PSC is expected to decide on those proposals before the end of the year. The PSC also opened a proceeding on energy affordability (PC 59) and is in the process of convening a working group to make recommendations on new policies to lower energy burdens in the state. This docket will primarily consider complementary policies to the EERS.

One interesting data point on the potential impact of the next generation elements is that the cost effectiveness for GHG reductions through fuel-switching programs with efficient electrification appears to be far better than for traditional energy efficiency programs. This appears to be due in part to the



substantial emissions savings from switching from fuel oil. Delmarva’s proposed electrification plans are estimated to be seven times more cost effective per ton of GHG reduction than traditional programs. Table 3 shows these data.

Table 3. Delmarva residential HVAC program (2025–2026)

	Plan incentive budget	Gross wholesale lifecycle GHG savings (metric tons CO <sub>2</sub> equivalent)	\$ per ton
Energy efficiency	\$1,146,679	2,215	\$518
Electrification	\$2,354,635	31,968	\$75

*Data from Delmarva Power and Light Company 2025–2026 EmPOWER MD Program Filing, Table 2: Electrification Contribution to Residential HVAC Program (2025–2026), p. 11. ML 311702.*

## Performance incentive mechanisms: a complementary mechanism to encourage meeting EERS goals

Performance incentive mechanisms (PIMs) or performance-based regulation (PBR) frameworks are financial incentives or penalties that reward utilities and PAs for achieving or exceeding certain program goals, and in some cases penalize utilities that fall significantly short of goals. Goals can encompass many indicators of performance, such as energy savings targets, spending goals, and targets relating to equity, electrification, and decarbonization. As of 2022, 28 states have established PIMs for at least one major electric utility (Subramanian et al. 2022).

As with traditional and next generation EERSs, there are also traditional and next generation PIMs. Traditional energy efficiency PIMs tend to focus on energy savings or sharing the projected net benefits of programs (benefits over measured lifetime minus program costs). Next generation PIMs usually combine traditional PIMs with additional next generation metrics, as described in the next few paragraphs.

In recent years, as the focus on decarbonization and equity has increased, policymakers have begun to design incentives to encourage demand response and flexibility, electrification, and comprehensive retrofits. According to recent ACEEE and RMI research, a few states and jurisdictions, such as New York, Vermont, and Washington, DC, have PIMs that explicitly reward utilities for GHG reductions achieved through energy efficiency and electrification efforts (Gold, Wilson, and Berg 2022). These PIMs have been characterized as climate-forward efficiency PIMs after the climate-forward efficiency approach that encourages treating energy efficiency as an intentional driver of GHG reductions, leveraging energy efficiency as a tool to mitigate and adapt to climate change impacts, and investing in energy efficiency programs that prioritize decarbonization (Specian, Gold, and Mah 2022). Other states implicitly reward utilities for GHG reductions through PIMs that track progress toward fuel-neutral savings, time-based savings, program-specific savings, or net benefits that incorporate the benefits of avoided GHG (Gold and Wilson 2022). All of these metrics are incentivizing energy efficiency portfolios and measures that result in GHG reductions.

Similarly, more states are taking actions toward designing and implementing equitable energy efficiency programs and policies for low-income communities, communities of color, and other historically

disinvested or marginalized communities. Policymakers have been considering equity-related PIMs to incentivize and encourage utilities to achieve equitable outcomes. Examples of equity-related PIMs include energy efficiency spending and savings targets for low to moderate-income households and affordability metrics that aim to reduce the number of customers facing disconnections in service. Likewise, a few states have developed PIMs for electrification. Among our case study states, Massachusetts has several different performance incentives, of which two are tied specifically to program equity goals and electrification goals. In the 2025–2027 period, 50% of the potential PIM is focused on meeting equity goals (Mass Save 2024b). New York's performance incentives include several components, such as one for “beneficial electrification” (NYPSC 2023b). And in Michigan, performance incentives for utilities regarding their energy efficiency, called “Energy Waste Reduction,” (EWR), are negotiated for each utility as part of the approval of their multiyear EWR plan. Historically, these performance incentives have often included specific components related to performance regarding low-income programs, and the most recent statute (PA 229 of 2023) specifically authorizes that practice.

Hawaii was one of the first states to enact comprehensive PBR, a framework that aims to change utility business models by aligning utility profits with goals such as decarbonization, reliability, and resilience. In 2021, the Hawaii Public Utility Commission (HPUC) approved a wide array of PIMs, scorecards, and metrics as part of the larger PBR framework (Hawaii PUC 2024). The Low-to-Moderate Income Energy Efficiency PIM is an example of how PIMs can drive equitable outcomes. It promotes collaboration between Hawaiian Electric, the state’s IOU, and Hawaii Energy, the state’s energy efficiency utility with the aim of increasing energy savings for low- and moderate-income customers and participation in low- and moderate-income energy efficiency programs (Hawaii PUC 2020).

Other states are now considering PBR (e.g., Connecticut and Maine), and since PBR usually involves multiple performance metrics, some next generation metrics could be included in those states.

It should also be noted that a few states have PIMS for additional metrics, such as peak demand savings and savings from deep-saving retrofits. For example, New York includes both of these metrics in its PIMS (NYPSC 2023b).

## Discussion, conclusions, and recommendations

Presently, 26 states plus the District of Columbia have EERS policies in place. These states account for over 80% of utility energy efficiency program savings in 2023, and thus EERS policies are a critical part of utility energy efficiency program efforts. On average, in 2023, utilities achieved 99% of their EERS goals, with some utilities exceeding goals and some utilities falling a little short. Utilities exceeding goals were often aided by performance incentives that reward utilities for exceeding EERS minimums.

Of the 27 EERS states (including DC), we identified at least one next generation element in 23 of them. Many of these states include these elements in their EERS laws and regulations, but a few do so in complementary programs. By far the most common, in 21 states, are specific requirements for programs serving low-income customers. In addition, other next generation steps include metrics and goals for GHG emissions savings—16 states plus DC, but only a few states have mandatory goals and/or have them as part of their EERS policy—and enabling electrification through changes to program rules, as well as specific electrification targets (16 states, of which only a few are mandatory). For many of our case study states, these next generation elements are resulting in increasing low-income and electrification program activity, such as for low-income programs in all our case study states and electrification programs in Massachusetts and New York, as well as emerging efforts in the other case study states. Next generation policies are also contributing to complementary policies, such as new construction

requirements in Massachusetts and New York, electric rate redesign efforts in Massachusetts, and low-income rates in Illinois and Minnesota. All of these examples are discussed in our case studies earlier in this paper. More impacts are likely to become apparent in the next few years after new programs and policies triggered by recent legislation and commission orders take effect.

Based on these findings, we recommend the following:

1. The 24 states without EERS policies should consider adopting an EERS, either by action of their legislatures or utility commissions. We find that EERSs drive much higher savings than more general policies without savings targets.
2. The four states with EERS policies and presently without next generation elements should consider expanding these policies to include next generation elements, such as GHG and Btu savings metrics and low-income and electrification targets. Our research finds that low-income targets are having a significant impact on increasing services for low-income households, and initial results in case study states for these other metrics are promising.
3. The 23 states with some next generation aspects should consider additional next generation components. Specific items to include are:
  - savings targets tied to greenhouse gas (GHG) reductions, such as Maryland and Massachusetts have done, and/or to Btu energy savings, as Massachusetts and New York have done. Btu savings targets enable programs to tackle fuel oil and propane savings, both high-GHG fuels, and to also to promote fuel-switching that reduces energy use and emissions.
  - low-income savings and/or spending targets, as 21 EERS states have done. Targets should be substantial—six states require that at least 25% of program spending serve low-income households. Ideally, special efforts should be made to identify and target households with high energy burdens, as Eversource in Massachusetts is doing.
  - complementing expanded low-income energy efficiency programs with low-income rates that will reduce high household energy burdens. The new Xcel program that seeks to limit energy burdens to 4% is particularly notable. Illinois and Massachusetts are other states with new low-income rates that could serve as models.
  - enabling and encouraging utilities to electrify end uses where this will save energy and reduce emissions. Illinois, Michigan, and Minnesota have recently taken such steps, and Massachusetts and New York have gone so far as to set electrification targets that are helping to drive growth in heat pump sales.

Such efforts can be led by legislators, regulators, or other key parties, such as state energy offices and energy efficiency organizations.

4. States with next generation components should regularly review and refine those components, as, for example, New York did with its 2022–2023 interim review, Massachusetts is doing with its new three-year plan covering 2025–2027, and Minnesota and Illinois have been doing with new legislation. These reviews should be publicized, so other states can learn from them.

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