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Snapshot of Energy Efficiency Performance Incentives for Electric Utilities

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Introduction

The traditional utility business model is changing in response to aging grid infrastructure, developing technologies, and evolving policy priorities. New business models direct and optimize utility investments. They also aim to level the playing field between investment in traditional infrastructure on the one hand, and, on the other, new distributed energy resources and demand-side management programs including energy efficiency.

Energy efficiency is a low-cost, reliable demand-side resource that provides numerous benefits to the electric system and its customers. Beyond energy savings, efficiency creates local jobs, saves money for customers, reduces pollution, improves public health, and helps utilities meet system demand. As the primary provider of energy services, utilities can offer efficiency programs that deliver these benefits to their customers and their system, or they can support nonprofit or governmental third parties that offer those programs. However regulated utilities traditionally face disincentives to implementing and scaling up energy efficiency within their territories. Efficiency reduces electricity sales and revenues, resulting in financial losses compared to traditional supply-side infrastructure investments.

More specifically, utilities typically have three primary financial concerns regarding customer energy efficiency programs:

- Program cost recovery
- Decreased energy sales leading to reduced profits
- Lack of earnings opportunities for shareholders compared to other utility investments

These concerns may prompt utilities to resist funding and implementing large-scale energy efficiency programs that would substantially reduce energy sales.[*] However various approaches—both longstanding and new—can help reduce these economic disincentives and create additional positive incentives for energy efficiency. These policies are critical to advancing utility-sector efficiency programs and performance.[†]

Performance incentive mechanisms (PIMs) are one such policy that incentivizes energy efficiency. Our research finds that PIMs are among the most important factors contributing to higher savings and increasing utility energy savings year to year.[1] They can be structured to provide business opportunities that are competitive with what utilities can earn through investments in assets such as generation plants and infrastructure. The opportunity for competitive returns on investments in energy

* We focus on electric utilities in this brief, although performance incentive mechanisms and the other concepts discussed can also apply to natural gas utilities.

† We have previously referred to the policies needed to overcome those three concerns as the three-legged stool of energy efficiency policy. See *The Old Model Isn't Working: Creating the Energy Utility for the 21st Century*.

efficiency can also drive a utility culture shift that makes energy efficiency a core part of the business and leads executives to devote increased focus and additional organizational resources toward it.

In a previous national review of performance incentives, we found that there are four broad categories of utility energy efficiency performance incentives:[2]

- *Shared net benefits incentives*. Utilities can earn a percentage of the benefits from their successful energy efficiency programs.
- *Energy-savings-based incentives*. Utilities can earn a reward for meeting pre-established energy savings goals.
- *Multifactor incentives*. Utilities can earn rewards for meeting pre-established goals based on multiple metrics such as energy savings, demand savings, or energy savings for low-income communities.
- *Rate-of-return incentives*. Utilities can earn a rate of return on efficiency spending, comparable to what they receive for traditional investments, sometimes with requirements for energy savings performance.

Utilities and regulators are using innovative energy efficiency PIMs to realign utility profit-making incentives and to open up new revenue opportunities.[3] PIMs can offer a financial reward for achieving specified metrics, but they can also be structured to generate financial loss for missing targets. This creates both risk and opportunity and makes utilities and shareholders more invested in meeting targets.[1*] This can level the incentives to invest in energy efficiency and traditional investments and can drive an organizational shift toward a greater focus and allocation of resources toward efficiency. On the other hand, it is possible that utilities could devote resources to fighting mechanisms that present too much risk. PIMs can also be incorporated as part of cost recovery mechanisms that aim to treat efficiency expenditures more like capital expenditures (capex). When utilities want to quickly increase efficiency spending, capex treatment can help to minimize customer bill impacts by recovering costs over a longer period of time rather than recovering them in the year they are incurred through bill surcharges. Multifactor performance incentives that incorporate multiple metrics can also work to meet other policy objectives. Examples of these might include reductions in peak demand, or various types of low-income energy efficiency program spending and/or savings criteria.

This brief provides an update to our previous research on utility energy efficiency performance incentive mechanisms.[†] We first present a broad overview of the current national landscape of state approaches to efficiency performance incentives. We then describe leading and trending PIMs, focusing first on multifactor incentives in Massachusetts, Rhode Island, Hawaii, Michigan, and New York; and next on return on equity and innovative cost recovery mechanisms in Maryland, New Jersey, Utah, and Illinois. We conclude with a discussion of the impacts of these findings.

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[*] However, simply creating a rate of return for efficiency does not necessarily incentivize shareholders to implement it. Utilities must consider the scale of the investments and their related risk and return in comparison to large conventional resources to properly align shareholder value with desired outcomes. See *Regulatory Incentives and Disincentives for Utility Investments in Grid Modernization*.

[†] Our previous review is *Beyond Carrots for Utilities: A National Review of Performance Incentives for Energy Efficiency*. Other research on performance incentives includes the following: *Policies Matter: Creating a Foundation for an Energy-Efficient Utility of the Future* (ACEEE), *Utility Performance Incentive Mechanisms: A Handbook for Regulators* (Synapse Energy Economics), *Making the Business Case for Energy Efficiency: Case Studies of Supportive Utility Regulation* (ACEEE), and *Performance Incentives and Utility Regulation* (Regulatory Assistance Project).

Utility Performance Incentive Landscape

Figure 1 shows the national landscape for utility energy efficiency performance incentives.

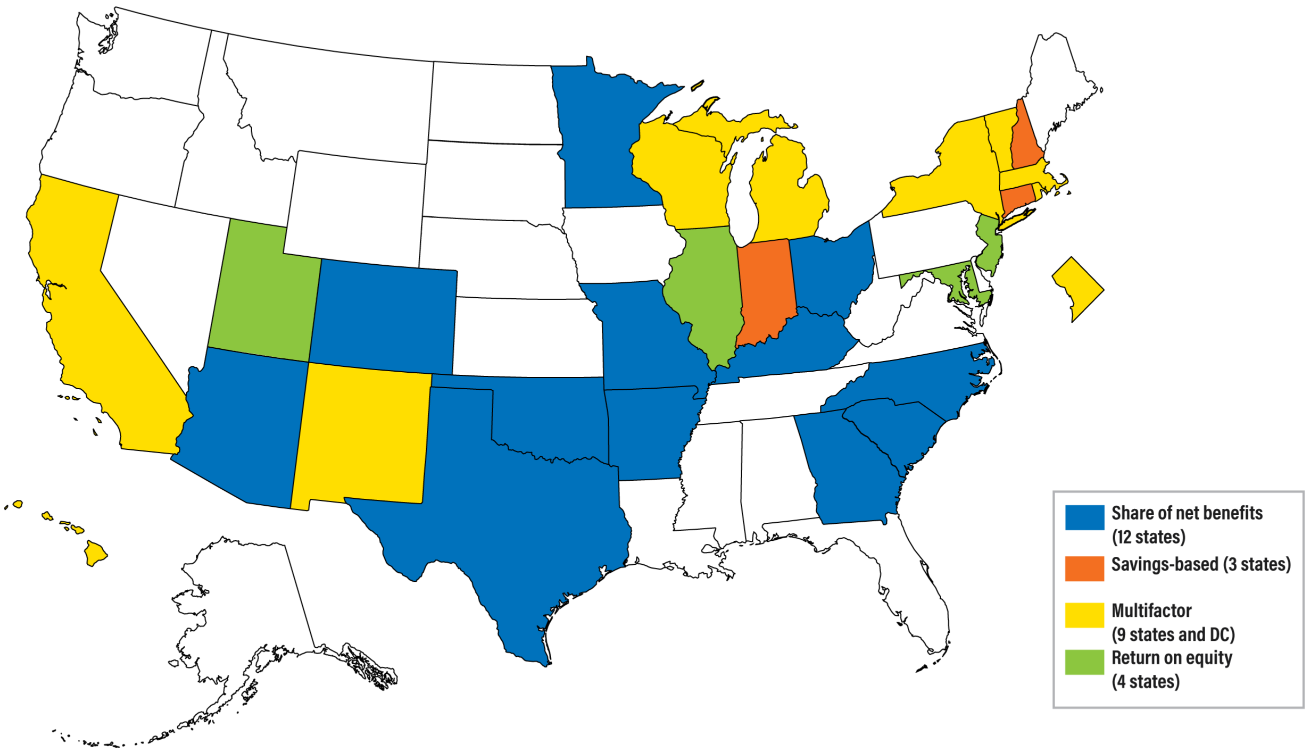

Figure 1. State energy efficiency performance incentives by mechanism type. *Source:* ACEEE state policy database based on 2017 data with additional updates.

Twenty-nine states currently implement incentives. Since our 2015 review, most states have not changed the mechanisms used in their performance incentives. The most prevalent mechanism is shared net benefits, with 12 states using this approach. Three states use an energy-savings-based incentive, and nine states use a multifactor mechanism. Four states have return on equity mechanisms. Nine of the top 10 states ranked by electric energy savings as a percentage of retail sales have performance incentive mechanisms in place.[4]

Leading and Trending Mechanisms

Multifactor Incentives

Multifactor mechanisms provide financial rewards to utilities that meet additional state policy goals like reducing peak demand (and system costs), creating savings for low-income customers, and others. These PIMs work in conjunction with state energy efficiency resource standards (EERSs), which set specific, long-term energy savings targets, and where there is also a trend toward setting goals for other metrics in addition to energy savings. The following sections describe the multifactor incentives in Massachusetts, Rhode Island, Hawaii, and Michigan.

Massachusetts and Rhode Island have become national leaders in energy efficiency due in part to multifactor mechanisms. Rhode Island's 2017 electric energy efficiency savings were 3.08% of retail sales; Massachusetts's were 2.57%.* While the presence of incentives likely contributed to these high savings, we advise considering their impact in the context of multiple policies and practices. High performance correlates with the use of incentives in combination with other conditions such as EERSs, revenue decoupling, and the presence of an active energy efficiency market and stakeholder community.† In ACEEE's *2018 State Energy Efficiency Scorecard*, these states earned the maximum total points across eight metrics in utility energy efficiency, performing well above other states. Table 1 summarizes the total available incentive in each of the states we highlight below.

Table 1. Available incentive levels by state

State	Incentive level
MA	Incentive pool is approximately 5% of electric spending.
RI	Target incentive is 5% of spending.
HI	Incentive is approximately 3.3% of contractor costs.
MI	Incentive is capped at 15% of spending or 25% of net benefits.
NY	Incentives are capped at 100 basis points.

The available incentive pools shown for these states vary based on basis points, and from 3 to 15% of spending. This helps to demonstrate that other factors and policies that align utility business models to incentivize energy efficiency are also critical to performance. For example, both Massachusetts and Rhode Island have smaller available incentives than Michigan, yet both have led the country in energy savings performance.

Massachusetts

In its 2016–18 plan, Massachusetts's incentive for electric and gas utilities was a predominantly energy-savings-based, multifactor incentive. A three-year statewide performance incentive pool was set at a design level of $100 million for electric and $18 million for gas, and then allocated among program administrators. Those dollar amounts were approximately 5% of the budgeted electric spending and 3% of the budgeted gas energy efficiency spending over the three-year plan period. The mechanism rewarded performance on two components: savings based on the dollar value of energy savings benefits (61.5% of pool), and value based on the dollar value of net benefits (38.5% of pool). The minimum performance threshold to earn a performance incentive was 75% of the EERS target; the maximum performance incentive was awarded at 125% of the EERS target. Massachusetts calculated both the threshold and the cap at the portfolio level for each IOU.[5] The Department of Public Utilities removed a third component that had been in place prior to 2013 for specific performance metrics because it was redundant and administratively burdensome.[6] These performance metrics previously made up 20% of the pool, and rewarded performance on relatively narrow objectives, such as quality installation and direct install bulb penetration.

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* Only Vermont, at 3.33%, saved more. The Vermont energy efficiency delivery and regulatory structure features an energy efficiency utility, Efficiency Vermont, which is not typical of most states. We examine Massachusetts and Rhode Island here for their comparability with most state policies, which focus on investor-owned utility business models.

† Decoupling is the separation of a utility's profits and revenues from its sales.

The Massachusetts Energy Efficiency Advisory Council approved the 2019–21 energy efficiency plan, which adds new components to the incentive mechanism.* These include incentives to encourage program administrators to pursue active demand benefits and incentives for service to renters.[7] Active demand encompasses direct load control, demand response, behind-the-meter storage, and thermal storage.[8] The new components and approach to the PIM fit within the evolution of Massachusetts' overall utility energy framework toward "energy optimization," described in the proposed new plan. One of the main drivers of both the plan and incentive structure is an Act to Advance Clean Energy, recent legislation that expands the definition of energy efficiency to a broader focus on system-level efficiency.[9] It will be important to analyze results as these new components are implemented.

There is also evidence that the state's performance incentives have resulted in a cultural shift at Massachusetts utilities, making focus on energy efficiency a core part of the business. According to previous ACEEE research findings, "The incentive structure in place has resulted in energy efficiency programs being viewed as a core business unit capable of contributing to the overall business objectives of [National Grid]," and that senior executives were enthusiastic about energy efficiency.[10] There seems to be a similar attitude at Eversource, where the director of energy efficiency is a vice president; this is often a director-level position at other utilities.

Rhode Island

Rhode Island's incentive structure for 2018 and 2019 is similar to the current Massachusetts mechanism, but is simpler in some respects. Because there is only one electric utility—Narraganset Electric, which is part of National Grid and which serves 99% of the state—there is no incentive pool shared among multiple utilities. The incentive comprises two components: energy savings (70%) and demand savings based on the highest peak days of summer (30%). The target incentive rate is set at 5% of spending. To receive any incentive, Narraganset Electric must meet 75% of the annual energy and demand savings goals. From 75 to 100% of goal, the incentive ramps up from 1.25% of the spending budget to 5%: the higher the percentage of target savings achieved, the greater the incentive award. From 100 to 125% of each goal, the incentive is 5% of the spending budget multiplied by the percentage achieved.[11]

Hawaii

In Hawaii, the performance incentive mechanism applies to Hawaii Energy, the state's third-party energy efficiency program administrator, not to Hawaiian Electric Company (HECO) or other utilities. Hawaii passed the Ratepayer Protection Act (SB 2939) in 2018, which requires the Public Utilities Commission (PUC) to institute performance-based rates (PBR) for HECO by 2020. Additionally, the PUC opened a docket to investigate PBR, with an initial focus on determining goals and desired outcomes, and a later focus on design and implementation.[12] These rate structures will align the utility and program administrator incentives with public policy goals.[13] Metrics will include service reliability, reduced rate volatility, rapid integration of renewable energy sources, and others. It is not yet clear whether performance-based regulation for HECO will drive investment in energy efficiency to support desired public policy outcomes.

The regulatory business model already included other key elements to encourage energy efficiency. The state has had full revenue decoupling and an EERS since 2010 and 2009, respectively. The PUC ordered decoupling for HECO in 2010.[14] The act that established the EERS did not specify whether the

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* The plan, including the new incentive mechanism, awaits approval by utility regulators. See ma-eeac.org/wordpress/wp-content/uploads/Exh.-1-Final-Plan-10-31-18-With-Appendices-no-bulk.pdf.

program administrator or the utility must comply; instead it specified only long-term savings targets, and that the PUC shall establish interim targets and revisit the EERS every five years beginning in 2013.[15] The program administrator is focused solely on producing energy savings, although the PUC also estimates market-driven energy savings occurring outside of the program administrator's achievements and incorporates those savings into the tracked EERS achievements.

The Hawaii PUC allocates the incentive award to Hawaii Energy among four performance indicators: resource acquisition (70% of award), customer equity (17%), market transformation (10%), and customer satisfaction (3%). The performance indicators contain multiple focus areas, and each has quantitative performance metrics. For example, resource acquisition includes focus areas of first-year energy reduction (15%), peak demand reduction (15%), and total resource benefit (40%). Each has a quantified target, measured in these cases in kWh, kW, and dollars, respectively.[16]

Recent results indicate that the PIM structure has been successful. The performance incentive mechanism and regulatory business model have been consistent since 2010, and Hawaii has been in the top 10 states for electricity savings as a percentage of retail sales each year from 2014 to 2017.[17] Hawaii has achieved these results with a low dollar incentive award relative to energy efficiency spending. For the 2017 plan year, the highest potential financial award was $975,000, or 3.3% of $29.6 million total estimated contractor costs. This is an increase from an average award of 2% of total program spending prior to 2014.[18]

Michigan

Michigan's EERS went into effect in 2009, requiring electric utilities to achieve 0.3% savings as a percentage of the prior year's retail sales. Targets increased annually until 2012, when the target was set at 1%. This target is in place through 2021. Electric utilities in Michigan do not have revenue decoupling in place.

To further incentivize energy efficiency achievement, Michigan has a multifactor performance incentive in place for its investor-owned utilities, DTE and Consumers Energy, which represent about 76% of electric sales in Michigan.[19] The mechanism includes savings-based metrics as well as program goals like expanding low-income programs, creating consistency in rebate amounts, promoting deep energy savings (as described below), and reducing peak demand.[20]

The incentive mechanism has changed slightly over time. Prior to 2012, achievement of 115% or more of the energy savings target with a Utility Cost Test (UCT) cost-effectiveness score of at least 1.25 qualified the utilities to earn the maximum incentive allowed. This was calculated on a sliding scale in relation to the level of achievement, capped at the smaller of either 15% of the utility's investment or 25% of net benefits. In 2013, the PIM began to include additional metrics; it remains a multifactor PIM today.

In 2016, legislation updating the performance incentive for the years 2017–21 established tiers of eligibility when utilities hit 1.25% and 1.5% annual (first-year) savings. It also increased the maximum incentive for which utilities could qualify—from 15 to 20% of spending if their annual savings exceed 1.5% of retail sales. The actual incentive amount is still determined using a multifactor approach. For those utilities that are eligible based on first-year savings, the specific parameters for earning the incentive use lifetime savings for the majority of the incentive in order to bolster the installation of longer-lasting measures. To facilitate this, the performance incentive includes the calculation of the Long-Life Equipment Savings Multiplier (LLESM). The LLESM is a 10% savings multiplier awarded to measures installed with a measure life of 10 years or more. The PIM also uses lifetime savings for low-income programs.

As an indicator of the success of this mechanism, Consumers Energy has consistently exceeded its energy savings targets by 23–43%. The utility's performance incentive financial awards have increased with its program spending, and have been above $11 million in recent years with total spending of over $75 million. Similarly, DTE has earned an incentive of 15% of spending in recent years, and earned incentives of over $13 million.[21]

New York

In April 2014, the New York Public Service Commission started its Reforming the Energy Vision (REV) proceeding to better align utility regulation with evolving policy goals to establish a cleaner, more reliable, and affordable energy system.[22] The commission issued its Track One and Track Two Orders in 2015 and 2016 to guide forthcoming rate case proceedings. Track One outlined broad policy and implementation frameworks, and Track Two addressed utility ratemaking items, including PIMs, or Earnings Adjustment Mechanisms (EAMs). Track Two stated that EAMs "should not be more than 100 basis points [of allowed return on equity] total from all new incentives."[23] Additionally, the State Energy Plan set a target of 185 Tbtu savings through 2025, although the Public Service Commission has not yet established specific incremental annual energy savings targets for each utility.[24]

New York's updated ratemaking policies were first included in the 2017 proceedings of Consolidated Edison Company of New York (Con Edison). For 2017 through 2019, Con Edison's rate plan includes a mix of EAMs to incentivize achievements across energy efficiency, system peak reduction, and broader programs for encouraging distributed energy resource integration, energy intensity across different service classes, and greenhouse gas emissions reductions. Incentive amounts are tied to performance on the EAM metrics. In addition, an increasing portion of Con Edison's energy efficiency and peak reduction program investments are treated as regulatory assets with a 10-year amortization period. In its first year under the new rate plan, Con Edison's maximum energy efficiency EAM target of 198 GWh was 60% greater than the prior year, and the utility was able to exceed that maximum target by more than 50%, a testament to the success of a combined EAM and regulatory asset construct.[25]

Other utilities also have energy efficiency EAMs in place, but there is not yet sufficient data to determine how they are impacting performance. New York's mechanisms are an interesting testing ground for both trends highlighted in this brief: multifactor and return on equity performance incentives.

Return on Equity (ROE): Performance and Nonperformance Based

In some states, such as New York, regulators are allowing a return on equity for demand-side investments in a manner similar to those used in traditional infrastructure investments.* In addition to leveling the playing field for demand-side investments, ROE mechanisms may smooth the impact of customer bill surcharges (sometimes called system benefits charges) or other cost recovery mechanisms that fund energy efficiency. Rather than recovering costs during the year in which they are incurred, ROE mechanisms allow utilities that are rapidly ramping up energy efficiency investment to spread those costs over the entire period that customers benefit from the investment, often making it more equitable. With traditional bill surcharges, customers pay the full cost of measures that provide benefits many years into the future; however customers who leave the service territory before a measure's benefits can be fully realized are, in effect, subsidizing future customers who move in after the investment has been made. The amortization period allowed by ROE mechanisms works to spread the

* In exchange for the ability to operate as monopolies outside of a competitive market, utilities are allowed to earn a rate of return on their assets (called the rate base), as defined by their regulatory entities.

bill impacts of efficiency across a longer period, ensuring that customers pay for efficiency measures while they are benefitting from them.

Here we present examples of states allowing a ROE for energy efficiency. Maryland, Utah, and New Jersey use ROE mechanisms without a performance requirement based on energy savings or other performance-based metrics, although in some cases there are indirect relationships between the two, such as in Maryland. We also highlight Illinois' mechanism, which is performance based. With performance-based ROE mechanisms, earnings are triggered by the achievement of energy savings or other targets, such as EERS requirements.

Maryland

Utilities in Maryland are subject to an EERS that mandates 2% incremental energy savings through the year 2023.[26] The utility business model encourages energy efficiency investment through two mechanisms: full revenue decoupling and the ability to rate base and capitalize their investments with a return on investment based on the weighted average cost of capital, which was instituted in 2007. Costs are amortized over a five-year period.[27] This period was based on a recommendation from a demand-side management collaborative report filed with the Maryland Public Service Commission.[28] While the rate-of-return calculation is not directly tied to energy savings thresholds, the utilities are statutorily obligated to meet energy savings performance requirements. Therefore this cost recovery mechanism is indirectly linked to energy savings performance.

Additionally, Maryland's public code allows the Public Service Commission to approve rate-making policies that include additional financial incentives for electric and gas energy efficiency, although none have been approved.[29]

New Jersey

The New Jersey Board of Public Utilities (BPU) administers energy efficiency programs for the State of New Jersey under its Office of Clean Energy and the New Jersey Clean Energy Program. Investor-owned utilities also offer certain energy efficiency programs. In 2018, the state directed the BPU to adopt new energy efficiency targets under an EERS.[30]

In 2015, the BPU authorized Public Service Electric and Gas (PSE&G) to implement a $95 million electric and gas energy efficiency program, including multifamily housing, direct install, and hospital sub-programs, as well as administrative costs such as marketing, quality assurance and control, and IT system enhancement costs.[31] Time limits to complete investments were specified by program. PSE&G was authorized to recover program costs through a Green Program Recovery Charge on all electric rate schedules using a proportional cost basis, and to amortize costs over a seven-year period (IT system costs were authorized for amortization over five years). Additionally, PSE&G's revenue requirement associated with the energy efficiency portfolio included a return on investment for the amortization of the regulatory asset set at the utility's weighted average cost of capital. Expenses are initially estimated, then trued up the following year during the annual review of the program recovery charge. This cost recovery and rate-of-return mechanism was also authorized for PSE&G's $85.1 million portfolio in 2017, which included the same programs that were included in the previous filing, as well as new smart thermostat and residential data analytics pilot programs.[32]

In October 2018, PSE&G proposed an energy efficiency portfolio including 22 programs for 2020 through 2025 at a cost of $2.5 billion over the six years. As in previous years, PSE&G proposed that it be authorized to earn a return on its net investment, "based on an authorized ROE and capital structure including tax effects," using the weighted average cost of capital.* [33] The utility proposed a 15-year amortization period based on the weighted average useful life of the measures in the portfolio, excluding IT investments. The mechanism is not tied to performance on energy savings or other targets.

Utah

In 2016, Utah passed SB 115, the Sustainable Transportation and Energy Plan Act. Under the Act, Rocky Mountain Power (RMP), the largest investor-owned utility in Utah, was authorized to capitalize demand-side management costs and amortize the costs over a period of 10 years, and to recover these costs through rates. This allows RMP to earn a return on its investments in energy efficiency in a manner comparable to its traditional infrastructure investments.[34] The mechanism is not tied to performance on energy savings or other targets. It is implemented automatically for RMP, but has not yet resulted in significant increases in energy efficiency performance. RMP reduced its spending by about $5.5 million from 2015 to 2017, but achieved increased savings of about 62,000 MWh.[35]

Illinois

In 2016, Illinois passed SB 2814, the Future Energy Jobs Bill. This bill raised energy efficiency targets for Commonwealth Edison (ComEd) and Ameren Illinois (Ameren), the two investor-owned utilities in the state. In 2017, ComEd served almost 4 million customers and Ameren, about 1.2 million.[36] The Act requires the two utilities to achieve "cumulative persisting annual savings" of 21.5% and 16%, respectively, by 2030. The Act defines cumulative persisting savings as "the total electric energy savings in a given year from measures installed in that year or in previous years, but no earlier than January 1, 2012, that are still operational and providing savings in that year because the measures have not yet reached the end of their useful lives."[37]

The targets include carve-outs for the utilization of voltage optimization; programs offered by third parties; savings from the public sector such as local government, municipal corporations, public housing and school districts; and savings from low-income communities. Additionally, utilities may count non-electric energy savings of no more than 10% toward their goals. Through 2026, utilities must also implement cost-effective demand-response programs to reduce peak demand by 0.1% over the prior year. The utilities filed multiyear energy efficiency plans in July 2017 covering the 2018–21 period.

To incentivize utilities to meet these increased targets, the Act includes performance incentives for utilities that meet or exceed their targets, and penalties for those that do not meet targets. Cumulative targets are broken into annual targets to determine performance. This option is offered as part of an energy efficiency formula rate for cost recovery, and both ComEd and Ameren have opted to recover their costs using this option.

The formula rate is set using projected energy efficiency costs for the following year, amortized over the weighted average measure life of the portfolio and reduced for accumulated deferred income taxes. The projected costs are reconciled with actual costs the following year. This structure follows a traditional revenue requirement rate structure, where the revenue requirement is equal to the rate of return multiplied by the rate base, plus operating expenses. In this case the rate base is the operational cost of administering efficiency programs reflected as a regulatory asset. The operational costs are the amortization related to the energy efficiency costs.[38] The Act does not place direct caps on energy

* The calculation of the utility's net investment is defined on page 3 of the proposal.

efficiency budgets, but sets maximum allowable increases to customer bills, which could limit utility spending.

As a part of the formula rate, the ROE is calculated as the average of the prior year's monthly average yields of 30-year US Treasury bonds, plus 580 basis points. As of January 1, 2018, ComEd and Ameren have been eligible to adjust the ROE for achievement of their energy efficiency targets. The ROE is adjusted in the following year's cost reconciliations based on third-party evaluation of the utility's energy efficiency portfolio. Table 2 shows the applicable ROE for goal achievement by utility.

Table 2. Return on equity for achievement of energy efficiency goals

Utility	% of goal achieved	ROE	% of goal achieved	ROE
	2018–25		2026–30	
ComEd	≤75%	Minus 200 basis points	≤ 66%	Minus 200 basis points
	More than 75%, less than 100%	Minus 8 basis points per % below goal	More than 66%, less than 100%	Minus 8 basis points per % below goal
	100% or more, less than 125%	Plus 8 basis points per % above goal	100% or more, less than 134%	Plus 8 basis points per % above goal
	≥125%	Plus 200 basis points	≥ 134%	Plus 200 basis points
Ameren	≤ 84.4%	Minus 8 basis points per % below goal	<100%	Minus 6 basis points per % below goal
	More than 84.4%, but less than 100%	No change in basis points	100%	No change in basis points
	≥100%	Plus 8 basis points per % above goal	>100%	Plus 6 basis points per % above goals

Basis point reductions and increases are capped at 200 in all cases presented above.

Large customers are exempted from energy efficiency programs. This includes ComEd customers whose highest 30 minutes of demand are above 10 MW, and Ameren customers whose highest 15 minutes of demand are above 10 MW. Utilities other than ComEd or Ameren (called alternative retail electric suppliers) in Illinois are not included in the Act, but could offer energy efficiency programs as part of the third-party supplier carve-out in the targets. If the utilities choose not to opt into the energy efficiency formula rate, they would recover energy efficiency costs through an automatic adjustment clause tariff filed outside of their general rate case.

For the period of 2018–21, the Illinois Commerce Commission approved an annual budget of $351.6 million for ComEd's energy efficiency portfolio.[39] This represents doubled funding; the utility's budget was $159.4 million for the May 2016 to May 2017 plan year.[40]

In 2016, ComEd's CEO indicated that the intent of the bill was to make a stronger business case for services like energy efficiency, specifically through the ability to earn a return on investment in those services.[41] The increase in utility energy efficiency spending indicates that the EERS and performance incentive structure is thus far functioning as intended.

Discussion

States, utilities, and regulators are increasingly innovating in order to achieve policy objectives to reduce energy consumption, decrease greenhouse gas emissions, and increase low-income access to energy efficiency programming. Performance incentives are one important tool for achieving desired outcomes in the energy sector that fall under a broader umbrella of PBR. Other PBR tools include decoupling revenues from electricity sales and the use of multiyear rate plans (MRPs), which fix the time between utility rate cases and help to reduce regulatory costs for utilities. Outside of PBR, utility business model reforms can take other shapes to achieve the same goals, for example by offering new utility value-added services that enable platforms for new technologies, including EV charging and other distributed energy resources.*

While not all states have taken steps to update their utility performance incentives, we find that some have implemented new incentives since 2014, and others have updated their mechanisms in order to adapt to the changing energy landscape. Table 3 summarizes policy design features of the performance incentive mechanisms highlighted in this brief.

Table 3. Summary of policy design features for highlighted states

State	ROE	Amortization period for costs	Savings performance based	Metrics beyond energy savings
Massachusetts			✓	Incentive based on dollar value of savings benefits and net benefits. Incentives for 2019–21 include demand savings and renter carve-outs.
Rhode Island			✓	Incentive also includes demand savings and is linked to spending levels.
Hawaii			✓	Incentive is for the third-party administrator and is also linked to customer equity, market transformation, and customer satisfaction.
Michigan			✓	Incentive also linked to lifetime savings, low-income savings, demand savings, and others.
New York	✓	10 years[a]	✓	Incentives and their metrics vary by utility.
Maryland	✓	5 years	Indirect[b]	
New Jersey	✓	7 years		
Utah	✓	10 years		
Illinois	✓	Weighted average measure life	✓	

[a] Only Con Edison currently has ROE treatment, and this covers only a portion of its efficiency spending for the current rate period. [b] Utilities are statutorily required to meet energy efficiency savings goals.

A notable trend we highlight in this report is the use of multifactor PIMs. These types of PIMs, such as those in Massachusetts, Rhode Island, Hawaii, Michigan, and New York may better connect financial

* For more information, see Cross-Call et al. rmi.org/insight/navigating-utility-business-model-reform.

value with desired policy outcomes. However some outcomes (such as jobs created, low-income program access, or others) can be more difficult to measure and can create administrative complexity.

Another notable development is the recent adoption of incentive mechanisms that allow utilities to earn a rate of return on energy efficiency expenditures and to amortize energy efficiency expenses for cost recovery. Illinois, Maryland, New Jersey, and Utah are examples of such policies. The rationale for that type of approach is that it makes energy efficiency investments, and the level of focus given to energy efficiency by the utility and its executives, more comparable to traditional rate-of-return treatment for supply-side investments. It can also smooth the bill impacts for customers when there are large changes in efficiency spending. However this approach also treats expenses as capital items, and thus creates a capital asset that can grow over time, creating financial risk.[42]

ROE incentives without performance metrics reward spending rather than actual energy efficiency results. However rewards based on spending can reduce pressure on energy efficiency program evaluation, measurement, and verification, and this model aligns with traditional utility incentives for other programs, which are not always awarded on a performance basis. Most states with utility energy efficiency incentives base them on some type of performance criteria (most commonly, achieved energy savings) because of these concerns about the need to reward efficiency investment based on actual results. ACEEE has generally supported utility incentive mechanisms based on energy efficiency performance rather than on spending only because it helps to encourage desired outcomes and brings energy efficiency regulation toward a performance basis. Performance-based regulation has value in multiple aspects of utility regulation as well.

The example of Illinois demonstrates that it is possible to combine a rate-of-return approach with certain performance criteria as a required qualification for approval of the earnings, and even to vary the rate of return depending on the savings achieved. This would be analogous to the traditional regulatory requirement that a power plant be "used and useful" before being allowed into the rate base. One desirable feature of the US approach to utility regulation is that each state can establish its own regulatory framework for retail utilities operating within its boundaries. As a result, states are free to experiment with different approaches. It is important to monitor and learn from states testing a rate-of-return approach, such as New York's multifactor PIM that includes ROE, and to analyze the effect this has on energy efficiency savings results.

More broadly, a focus on the utility business model and on the need for appropriate financial incentives is critical to the widespread deployment of energy efficiency in the utility sector. This includes addressing the disincentives to energy efficiency deployment by decoupling revenue from electricity sales, effectively recovering program costs, and enacting financial performance incentive mechanisms. The rise of utility proceedings that are examining the role of the utility in deploying and optimizing renewable and distributed energy resources including energy efficiency, offers an opportunity to expand the set of reform options that can support energy efficiency investment. As utilities and regulators explore the use of energy efficiency and other nonwires solutions to transmission and distribution investments, the business model is very important and can influence the success of nonwires proposals, which can be less costly than traditional investments. These changes in utility regulation highlight the need to continue analyzing how changes to the utility business model impact energy efficiency performance.

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