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# Memorandum

TO: DON KREIS, OFFICE OF THE CONSUMER ADVOCATE  
FROM: TIM WOOLF AND COURTNEY LANE, SYNAPSE ENERGY ECONOMICS  
DATE: DECEMBER 16, 2022  
RE: COMMENTS IN RESPONSE TO COMMISSION ENERGY EFFICIENCY RECORD REQUESTS (IR 22-042)

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On November 4, 2022, the State of New Hampshire Public Utilities Commission (Commission) issued record requests as part of its Investigation of Energy Efficiency Planning, Programming, and Evaluation (Docket IR 22-042). The Commission seeks responses to questions related to four topic areas (I) Granite State Test (GST), Total Resource Cost (TRC) Test, discount rates, (II) performance incentives, (III) market barriers, and (IV) low-income program reporting. This memo provides our recommended responses to these questions.

## Topic I: Granite State Test, Total Resource Cost Test, and Discount Rates

### a) Approaches to assessing cost-effectiveness programs

According to the National Energy Screening Project (NESP), most states that assess the cost-effectiveness of ratepayer funded energy efficiency programs use the Total Resource Cost (TRC) test or a modified TRC test as the primary cost-effectiveness test. The second most common primary tests are the Societal Cost Test (SCT), the Utility Cost Test (UCT), and the Jurisdiction-Specific Test (JST) as adopted in New Hampshire as the Granite State Test (GST).<sup>1</sup>

There are also three states actively re-evaluating their cost-effectiveness framework using the National Standard Practice Manual for Benefit-Cost Analysis of Distributed Energy Resources (NSPM for DERs).<sup>2</sup> Washington and Minnesota are currently engaged in a series of workshops to develop a JST and Maryland is about to begin a similar process.

For states applying the TRC, it is common to find that these tests have been modified over time to reflect changes to policy. For example, a recent survey found that ten of the states using either a TRC test or the UCT account for avoided environmental externalities, thereby broadening the standard

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<sup>1</sup> National Energy Screening Project (NESP). Database of State Efficiency Screening Practices. Accessed on 11/22/22. Available at: <https://www.nationalenergyscreeningproject.org/state-database-dsp/database-of-state-efficiency-screening-practices/>.

<sup>2</sup> NESP, *National Standard Practice Manual for Benefit-Cost Analysis of Distributed Energy Resources*. 2020. (NSPM 2020) Available at: [https://www.nationalenergyscreeningproject.org/wp-content/uploads/2020/08/NSPM-DERs\\_08-04-2020\\_Final.pdf](https://www.nationalenergyscreeningproject.org/wp-content/uploads/2020/08/NSPM-DERs_08-04-2020_Final.pdf).

definition of these tests.<sup>3</sup> Most notably, Wisconsin, Massachusetts, Illinois, Washington, and Wyoming have modified their TRC tests to include a quantified value of greenhouse gas externality costs.<sup>4</sup>

It is also common for cost-effectiveness tests to include other non-utility system impacts. A survey by the American Council for an Energy-Efficient Economy (ACEEE) found that of 19 states surveyed, 13 included avoided environmental compliance costs, 13 included societal environmental benefits, 9 included participant health benefits, and 3 included societal health benefits.<sup>5</sup>

Lastly, many states account for non-energy impacts (NEIs) such as water, operation and maintenance costs, comfort and productivity improvements, local economic development, and reduced risk. A recent survey found that 12 states account for NEIs using either a monetized value or a percent adder as a proxy.<sup>6</sup>

Most states use multiple tests for determining the cost-effectiveness of efficiency programs. It is common practice for a state to identify a “primary” test, which is used for making cost-effectiveness decisions on most, or all, efficiency programs. The other tests are considered “secondary tests,” which are used in rare situations when additional information is needed to decide whether an efficiency program is in the public interest. For example, a secondary test might be applied if an energy efficiency program is marginally cost-effective (or not cost-effective) under the primary test. As noted in the NSPM:

While a jurisdiction’s primary test should be used to inform whether a utility should fund or otherwise support DERs, it does not have to be utilized in a vacuum. In some instances, secondary tests can help enhance regulators’ and stakeholders’ overall understanding of DER impacts by answering other questions regarding utility DER investments... However, secondary tests should be used cautiously to ensure that they do not make the BCA decision-making process burdensome or undermine the purpose of the primary test.<sup>7</sup>

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<sup>3</sup> Efficiency Vermont. 2021. *Analysis of State Approaches to Cost-Effectiveness Testing*. Pg. 10. Available at: [https://www.efficiencyvermont.com/Media/Default/docs/white-papers/Analaysis\\_of\\_State\\_Approaches\\_to\\_Cost-Effectiveness\\_Testing.pdf](https://www.efficiencyvermont.com/Media/Default/docs/white-papers/Analaysis_of_State_Approaches_to_Cost-Effectiveness_Testing.pdf)

<sup>4</sup> *Id.*, at pg. 9.

<sup>5</sup> American Council for an Energy-Efficient Economy. 2018. *Cost-Effectiveness Tests: Overview of State Approaches to Account for Health and Environmental Benefits of Energy Efficiency*. Pg. 4, Available at: <https://www.aceee.org/sites/default/files/he-ce-tests-121318.pdf>

<sup>6</sup> Efficiency Vermont. 2021. at pgs. 17-18.

<sup>7</sup> NSPM 2020, page vii.



## **b) Discount Rates**

### ***i. Do the participants view the discount rate used in the GST and TRCT as a capital discount rate or a social discount rate?***

The discount rates used in the Triennial Energy Efficiency plans are based on the US Prime Interest Rate. The Prime interest rate is chosen because this is meant to represent a relatively “low-risk” source of capital. As such, it is closer to a capital discount rate than a social discount rate.

### ***ii. Is there a specific rationale for using a single discount rate to represent the marginal cost of capital and society's preference for time?***

In general, the marginal cost of capital and society’s preference for time will result in different discount rates, where the former is typically much larger than the latter. Therefore, using a single discount rate to reflect both the cost of capital and society’s time preference would be challenging and potentially infeasible.

### ***iii. Between utility ratepayers, utility companies, and potential investors, whose discount rate is most appropriate to use given the sources of funding?***

The NSPM provides useful guidance on how to choose an appropriate discount rate for benefit-cost analysis (BCA) of distributed energy resources funded by utility customers, including energy efficiency programs.<sup>8</sup> It explains that the choice of discount rate should be based on the “regulatory perspective.” The regulatory perspective represents the perspective of commissions and other policymakers and should account for a variety of interests, including utility customers, utilities and their investors, state policy goals, and the public interest in general.

The NSPM further explains that the choice of discount rate for any BCA should be based on the objective of the BCA. Unregulated businesses frequently use BCAs for making decisions regarding investment options. In these cases, the objective of the BCA is typically to maximize the business’s profits, and thus a discount rate based on the weighted average cost of capital of that unregulated business is best suited for this objective. Government agencies frequently use BCAs for making decisions regarding investments with public funds to meet societal needs. In these cases, the objective of the BCA is to meet societal policies and goals, and thus a societal discount rate is best suited for this objective.

Regulated utilities implement energy efficiency programs to achieve a variety of objectives, such as reducing utility system costs, reducing utility bills, maintaining customer equity, protecting low- and moderate-income customers, reducing environmental impacts, promoting economic development, and generally supporting the overall goals of low-cost, reliable, clean energy services for all. The discount rate used for BCAs of energy efficiency programs should help support all these objectives.

From this perspective and with these objectives in mind, a discount rate based on the utility’s marginal cost of capital is not appropriate. Such a discount rate would reflect the interests of only utility

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<sup>8</sup> NSPM 2020, Appendix G.



investors, who typically have a much shorter time preference than customers, regulators, and other policymakers. Instead, a lower discount rate should be used to reflect the energy policy goals of the state. Such a discount rate would be akin to, perhaps equal to, a societal discount rate.

Further, the choice of discount rate has important implications for intergenerational equity, which refers to equity between today’s utility customers and those in future years. A low discount rate will generally result in greater intergenerational equity because it will discount the benefits to future customers less than a higher rate.

Currently the discount rate used for energy efficiency in New Hampshire is pegged to the federal prime interest rate set by the US Treasury. The prime interest rate is used because it is a benchmark for a low-risk cost of capital. A low-risk cost of capital is appropriate for energy efficiency programs because the program funding does not require utility capital investments and the energy efficiency programs are a relatively low-risk investment. For energy efficiency planning purposes, the New Hampshire utilities use a “real” discount rate, which nets out the effect of inflation. The real discount rate is calculated using the following method:

- The nominal discount rate = the prime interest rate set by the US government.
- The inflation rate = inflation based on the consumer price index.
- The real discount rate =  $[(1 + \text{Nominal Discount Rate}) / (1 + \text{Inflation Rate})] - 1$

The resulting real discount rates could be described as a hybrid of a cost of capital and a societal discount rate. While it is pegged to a cost of capital rate, the prime interest rate, it is lower than the utility weighted average cost of capital and is closer to a societal discount rate.

Table 1 presents several energy efficiency discount rates based on this method. Each column shows the nominal and real discount rates calculated at different points in time. As indicated, changes in the prime interest rate and the inflation rate can cause significant swings in the real discount rate, particularly in the past year with rising interest and inflation rates.

**Table 1. NH Energy Efficiency Discount Rates Calculated at Different Times**

	2020 Efficiency Plan	2021 Efficiency Plan	Using data as of June 1, 2022	Using data as of November 30, 2022
Nominal discount rate (%)	5.50	3.25	4.00	7.00
Inflation rate (%)	1.94	1.81	6.94	7.07
Real discount rate (%)	3.5	1.41	-2.75	-0.07

This outcome indicates a challenge with the current practice of determining discount rates in New Hampshire. The real discount rate can change significantly with swings in the prime rate and inflation, and the outcome might be different from the time preference from the regulatory perspective. For example, regulators might be reluctant to plan energy efficiency programs using a negative discount



rate. Also, allowing for swings in the real discount rate from one energy efficiency plan to the next can create uncertainties, volatilities, and inefficiencies in energy efficiency planning and implementation.

Further, the discount rate is applied to many years into the future, but the current prime interest rate and inflation rate will change over that timeframe. For example, if by 2025 the prime rate were to drop down to 3 percent and the inflation rate were to drop down to 2 percent resulting in a real discount rate of 1 percent in that year, it would not make sense to continue to discount costs and benefits after 2025 at a real discount rate of 3.5 (using data from 2020) or -2.75 (using data from June 2022).

For these reasons, we recommend that the Commission adopt a different approach for determining a discount rate for energy efficiency programs. The New Hampshire energy efficiency discount rate should be determined based on the following principles:

- The discount rate should reflect the regulatory perspective, which accounts for customers' interests, the utility's interests, and the public interest in general.
- The discount rate should be consistent with the goal of the energy efficiency cost-effectiveness analysis, which is to identify efficiency resources that will achieve the overall goal of providing low-cost, reliable, clean energy services.
- The method for determining a discount rate should seek to reduce volatility in the discount rates over time.
- The discount rate should be determined in real terms, to facilitate planning and eliminate potential volatility due to changes in the inflation rate
- The discount rate should account for intergenerational equity.

Based on these principles, we recommend that the New Hampshire utilities use a discount rate of 2 percent real for all energy efficiency program planning purposes. We further recommend that this discount rate be used for all energy efficiency cost-effectiveness analysis in future years, unless and until significant changes in energy efficiency goals suggest that a different discount rate would be appropriate.

This recommendation for a 2 percent real discount rate is not based on any specific formula or cost of capital. Instead, it is meant to represent a reasonable time preference for energy efficiency programs based on the regulatory perspective and the overall goal of providing low-cost, reliable, clean energy services. A 2 percent real discount rate is roughly consistent with discount rates used in the 2020 and 2021 energy efficiency plans and is on the high end of the range for societal discount rates.<sup>9</sup> Using this same discount rate each year will reduce volatility in the cost-effectiveness results.

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<sup>9</sup> NSPM 2020, Appendix G, Table G-1.



## Topic II: Performance Incentives

### a) Response to Commission Questions

#### ***iv. What was the original purpose of the performance incentive?***

The original purpose of the performance incentive (PI) was to better align the utilities' business model with the delivery of energy efficiency savings. The PI was first recommended by the New Hampshire Energy Efficiency Working Group to support utility-sponsored programs that would not be provided by the market or programs that will help the transition to non-subsidized energy efficiency programs.<sup>10</sup> The utilities were entitled to a shareholder incentive based on the achievement of cost-effectiveness and energy savings relative to what was planned.<sup>11</sup>

#### ***v. Does the current PI structure achieve the purpose provided in response to question II-a-i above?***

Yes, the current PI structure achieves this original purpose and more. The current PI structure still provides an incentive to the utility to implement and achieve cost-effective energy efficiency savings. The current PI structure has evolved since it was first implemented and is now tied to the achievement of defined savings and cost effectiveness targets and rewards the utilities for meeting or exceeding these targets.

#### ***vi. Has the purpose of PI changed? Please address this purpose with respect to changes in Lost Base Revenue and Decoupling mechanisms.***

The purpose of the PI continues to be to encourage the utilities to implement cost-effective energy efficiency programs and meet or exceed performance targets. The importance of the PI does not change in respect to employing either the Lost Revenue Adjustment (LRAM) mechanism or the decoupling mechanism since these replace revenue lost to energy efficiency as distinct from compensating shareholders or achieving benefits from energy efficiency. Research has shown that both a shareholder incentive mechanism and a lost revenue or decoupling mechanism are needed to align the utility business model with the achievement of energy efficiency savings targets.<sup>12</sup>

Without regulatory intervention, the traditional utility business model creates an economic disincentive for utilities to implement and promote energy efficiency. Under a traditional cost-of-service business model, utilities have a financial incentive to increase investments in capital assets and increase the volume of energy sales. Specifically, utilities have an incentive to maximize their capital expenditures in order to increase the rate base and thereby increase profits, as long as a utility's allowed rate of return is greater than the cost of borrowing. Utilities also have an incentive to increase electricity and natural gas sales between rate cases. Once a utility's rates are approved, they are fixed until the next rate case.

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<sup>10</sup> New Hampshire Public Utilities Commission Order No. 23,574. November 1, 2020. Pg. 20.

<sup>11</sup> *Id.*, at pg. 6.

<sup>12</sup> York, D., and M. Kushler. 2011. *The Old Model Isn't Working: Creating the Energy Utility for the 21st Century*. Washington, DC: American Council for an Energy-Efficient Economy (ACEEE). <http://aceee.org/white-paper/the-old-model-isnt-working>.



This creates what is often referred to as a “throughput incentive,” where the utility’s revenue and profit are highly dependent on the amount of energy it sells. Energy efficiency negatively impacts this business model by creating energy and peak demand savings that reduce sales and lessen the need for load-growth related capital investments.

While LBR and decoupling address the “throughput incentive” by removing the link between utility sales and profits, they do not create an incentive for the utility to maximize the net benefits of energy efficiency. As indicated above, utilities have a mechanism in place to earn on supply-side capital investments. Without providing utilities with a similar ability to earn on energy efficiency, they will continue to have bias towards supply-side investments and focus their attention on those resources.

The importance and effectiveness of performance incentives mechanisms (PIMs) supporting energy efficiency initiatives have been widely documented. At least 35 states and Washington, D.C. have PIMs in place to support energy efficiency and demand response.<sup>13</sup> Studies by ACEEE have shown a strong correlation between states with the highest performing energy efficiency programs and the existence of PIMs. Specifically, states with PIMs in place have invested 50 percent more in energy efficiency programs on a per capita basis than states with no incentive policy.<sup>14</sup> This also extends to the achievement of energy savings. On average, states with PIMs are achieving more than twice the energy savings than states without these incentives in place. Based on a review by ACEEE, the average net incremental electricity savings as a percent of retail sales for states with PIMs was 0.97 percent in 2016, while those without incentive policies averaged only 0.43 percent.<sup>15</sup>

***vii. Is there a simpler and/or more effective way to achieve this purpose through the PI structure?***

Based on our review of the current PI structure, we find it to be a reasonable approach.

***viii. Are the current PI thresholds and rates effective at maximizing energy savings?***

We do not have comments at this time.

***ix. Are the current PI thresholds too high or too low?***

The current 75 percent threshold for annual kWh savings, lifetime kWh savings, and net benefits is appropriate and is in alignment with the thresholds used in other jurisdictions in New England such as Massachusetts and Connecticut.<sup>16</sup> However, we find that the minimum threshold of 65 percent for summer peak demand and winter peak demand savings should be increased to 75 percent. As indicated

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<sup>13</sup> Cleveland, M., Dunning, L., and Heibel, J. 2019. *State Policies for Utility Investment in Energy Efficiency*. National Conference of State Legislatures. Pgs. 20-29.

<sup>14</sup> Nowak, S., B. Baatz, A. Gilleo, M. Kushler, M. Molina, and D. York. 2015. *Beyond Carrots for Utilities: A National Review of Performance Incentives for Energy Efficiency*. ACEEE. Retrieved from <https://www.aceee.org/research-report/u1504>.

<sup>15</sup> ACEEE. 2019. *A Models Comparison in Pennsylvania*. Submitted to the Pennsylvania Public Utilities Commission. Retrieved from <https://www.aceee.org/topic-brief/models-comparison-pa>

<sup>16</sup> Joint responses to Commission inquiries by the NH Utilities (IR 22-042), November 30, 2022, Attachment RR 1-002A and RR 1-002B.



in OCA's testimony in Docket No. DE 17-136, New Hampshire has fallen behind the efforts of Rhode Island, Vermont, and Massachusetts in reducing peak demand, which shifts more regional transmission costs to the state's ratepayers.<sup>17</sup> Increasing the PI threshold for winter and summer peak demand will better incent the utilities to place greater emphasis on the achievement and help to shift these costs away from New Hampshire. In addition, planned passive summer and winter peak demand savings will flow from the annual kWh planned savings. Therefore, it is not appropriate to have a different threshold for kWh and peak demand savings.

## Topic III: Market Barriers

### a) Background and Overview

The Commission seeks a definition for "Market Barrier" consistent with RSA §374-F:3(X), which states that "utility sponsored energy efficiency programs should target cost-effective opportunities that may otherwise be lost due to market barriers."<sup>18</sup> Within its record request, the Commission notes there is no adopted formal definition and that the 1999 Energy Efficiency Working Group was unable to reach a consensus on what constituted a market barrier.<sup>19</sup>

Market barriers refer to real-world obstacles that hinder electricity and natural gas customers from adopting energy efficiency actions and measures on their own. In a perfectly functioning market economy, all customers would adopt efficiency measures that resulted in long-term financial gains and product availability would directly follow product demand. However, the demand for and supply of energy efficient goods and services is imperfect and therefore fails to produce the ideal, efficient outcome. There is consensus among economists that energy efficiency market barriers are pervasive and provide a justification for utility and government intervention.<sup>20</sup> For these reasons, ratepayer funded energy efficiency programs were and continue to be implemented across the country to address market barriers to customer adoption.

The most common market barriers to energy efficiency are summarized below:

- Transaction costs and lack of capital: Customers, businesses, and industries often lack the up-front capital to invest in an energy efficiency product. This is particularly true for low- and moderate-income customers and small business customers. There is also the issue of transaction costs, where an investment of time and money may be required to obtain information, make an informed purchase, and install energy efficiency measures. This is a

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<sup>17</sup> Direct Prefiled Testimony of Jeffrey Loiter on Behalf of the New Hampshire Office of the Consumer Advocate (Docket No. DE 17-136), November 2, 2018, pg. 33-34.

<sup>18</sup> New Hampshire Revised Statutes Annotated §374-F:3(X).

<sup>19</sup> IR 22-042. November 4, 2022. Pg. 3.

<sup>20</sup> Eto, J. and W. Golove. 1996. Market Barriers to Energy Efficiency: A Critical Reappraisal of the Rationale for Public Policies to Promote Energy Efficiency. Berkeley, Calif.: Lawrence Berkeley National Laboratory. Pg 18.



particular problem when construction, renovation, and equipment failure require fast decision-making and product procurement.

- Imperfect information: Energy consumers do not often consider energy efficiency measures as an alternative to purchasing electricity and natural gas. Customers, businesses, industries, and contractors are often not aware of the full range of energy efficiency options, or they lack information on the economic, productivity, and other non-energy benefits of those efficiency measures. Further, for many customers, energy costs represent a small portion of the total costs of maintaining a home, running a business, or operating a factory, so little or no attention is paid to opportunities to reduce these costs.
- Limited product availability: Many energy efficiency measures are produced and distributed on a limited scale and are not readily available to customers, builders, contractors, or industries.
- Split incentives: The financial interests of those in a position to implement energy efficiency measures are often not aligned with the interests of those who would benefit from such measures. For example, landlords make capital purchases and maintain buildings, while tenants frequently pay the energy bills. Similarly, at the time of new construction the builder has an incentive to minimize short-term costs, while it is the new owner who would benefit from lower electricity bills over the long term.
- Purchasing procedures: Businesses may be focused on minimizing short-term costs over minimizing life-cycle costs, including energy costs. In addition, businesses may have competing priorities from capital and operating budgets.
- Uncertainty and risk avoidance: Customers may be skeptical of potential energy efficiency savings, may have doubts about whether an unfamiliar energy efficiency measure will work properly, or may find the more efficient technology to be less attractive or effective than the existing less-efficient technology.

One goal of ratepayer funded energy efficiency programs is to transform the market so that these barriers no longer exist. When the market for a specific energy efficiency product or service is transformed, utility incentives and intervention can be reduced or eliminated. Then as more efficient technologies come on the market (e.g., LEDs replacing CFLs and heat pumps replacing furnaces), the cycle begins again. It is worth noting that whether a market has been transformed is not solely a function of how long a utility program has been in place but is determined based on independent evaluations. These evaluations typically include an assessment of market saturation, retailer knowledge and product stocking, and free ridership levels, or the percentage of customers that would have made the investment or taken the action in the absence of a utility program.

The existence of a market barrier not only depends on where the program is in terms of this market transformation cycle, it can vary based on the type of customer targeted. For example, the barrier of split incentives is more common for customers in rental properties than customers that own a home.



## b) Recommended Definition

As discussed above, there are a wide variety of market barriers to energy efficiency and the existence of these barriers can vary based on the level of market transformation and the type of customer being targeted. We therefore caution against an overly prescriptive definition of “Market Barrier.” The definition should be broad enough that it can be applied across a variety of customer sectors, energy efficiency technologies, and services, and various stages of market transformation. For these reasons we recommend the Commission adopt the following definition:

Market barriers to energy efficiency programs are any conditions, systems, costs, or practices that inhibit customers from adopting energy efficiency measures that are cost-effective or otherwise in their interest. Examples include, but are not limited to, lack of capital, transaction costs, performance uncertainties, lack of product availability, lack of information, lack of access to financing, and misplaced or split incentives.

We find this definition to be sufficient to provide regulators, utilities, and interested parties with an understanding of a market barrier while not being overly prescriptive.

In response to Data Request RR 1-005 from the Commission, Eversource distinguishes between *customer* barriers and market barriers associated with a specific *technology*.<sup>21</sup> We agree that both types of barriers exist but note that both types of barriers provide justification for energy efficiency programs. Elimination of a technology barrier is not sufficient to achieve energy efficiency savings if customer barriers remain, and *vice versa*.

## c) Practices of Other State Utility Commissions

When the applicable provision of the New Hampshire restructuring legislation, RSA 374-F:3(X), was adopted in 1996, the impact of restructuring on the energy efficiency market was unknown. While the General Court envisioned that a restructured market could be designed in a manner to reduce market barriers to investments in energy efficiency, this has not materialized in New Hampshire or other restructured states. Market barriers continue to represent a real deterrent to investment in energy efficiency in both vertically integrated and restructured markets.

Since the implementation of restructuring, decades of experience have shown that ratepayer-funded energy efficiency is still critically important. The competitive market alone does not create the same level of investment in energy efficiency as ratepayer-funded energy efficiency programs delivered by a utility or other program administrator due to the existence of the market barriers summarized above.

Restructured states in the Northeast and across the country acknowledge the existence and impact of market barriers on energy efficiency through their continued support of ratepayer-funded energy

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<sup>21</sup> Eversource Energy, Response to Data Request RR 1-005 from the Commission, November 30, 2022, page 2.

efficiency programs delivered by utilities or third-party program administrators. **Table 2** below lists states with restructured electricity markets and ratepayer-funded energy efficiency programs.

**Table 2. Restructured electric markets with ratepayer-funded energy efficiency programs**

State	2022 ACEEE Ranking	Net Savings as a % of 2021 Electric Sales	Net Savings as a % of 2021 Gas Sales
California	1	2.22%	1.22%
Connecticut	9	0.99%	0.55%
District of Columbia	6	0.65%	0.34%
Illinois	16	1.69%	0.46%
Maine	5	1.22%	0.20%
Maryland	7	1.82%	0.25%
Massachusetts	2	1.83%	1.08%
New Hampshire	19	1.20%	0.36%
New York	3	1.41%	0.68%
Pennsylvania	21	0.62%	0.06%
Rhode Island	7	1.78%	0.68%
Texas	29	0.21%	0.00%

Source: American Council for an Energy-Efficient Economy (ACEEE). December 2022. 2022 State Energy Efficiency Scorecard. Available at: <https://www.aceee.org/research-report/u2206>.

Even states that do not have restructured electricity markets recognize that (a) market barriers can prevent customers from adopting cost-effective energy efficiency measures, and (b) utility energy efficiency programs are necessary to overcome these barriers. All states in the US offer some form of utility energy efficiency programs for customers, and market barriers are the reason why.

## Topic IV: Reporting on Low-Income Programming

***i. Have the participants considered other programmatic designs that are less reliant on the Home Energy Assistance program, and which might provide a more direct financial benefit to low-income ratepayers and/or have greater overall cost-effectiveness?***

We find the current programmatic design of the Home Energy Assistance (HEA) program to be in line with other low-income programs throughout New England. For example, Massachusetts and Rhode Island partner with Community Action Programs (CAPs) to offer income eligible services and cover 100 percent of the cost to low-income customers.<sup>22</sup>

<sup>22</sup> See Massachusetts Three Year Plan 2022-2024, available at: <https://ma-eeac.org/wp-content/uploads/Exhibit-1-Three-Year-Plan-2022-2024-11-1-21-w-App-1.pdf> and National Grid Rhode Island Annual Energy Efficiency Plan for 2022, available at [https://ripuc.ri.gov/eventsactions/docket/5189-NGrid-Energy%20Efficiency%20Plan%202022%20\(PUC%2010-1-21\).pdf](https://ripuc.ri.gov/eventsactions/docket/5189-NGrid-Energy%20Efficiency%20Plan%202022%20(PUC%2010-1-21).pdf).



We also agree with the response of Eversource to Commission Data Request No. RR 1-007 regarding the financial barriers faced by low-income customers and the need for enhanced incentives. As indicated by Eversource, it is common for low-income programs to have alternative cost-effectiveness rules.<sup>23</sup> For example, Minnesota does not require low-income programs to be cost-effective given their unique purpose and spending requirements.<sup>24</sup> In the same vein, it is common for states to incorporate greater non-energy benefits in cost-effectiveness for low-income participants to account for the often poor condition of low-income housing stock and the lower baseline of the customers health, safety, and comfort. For these reasons, it is important to view the effectiveness of New Hampshire's low-income energy efficiency programs through a broader lens than cost-effectiveness alone.

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<sup>23</sup> Eversource Energy, Response to Data Request RR 1-007 from the Commission, November 30, 2022.

<sup>24</sup> <https://database.aceee.org/state/minnesota>

