

Energy Efficiency and the Clean Power Plan

The more customers who participate in energy efficiency programs, the more energy efficiency can serve as a fair and low-cost option for complying with EPA's Clean Power Plan.

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Energy efficiency is widely recognized as an abundant and low-cost option for states to comply with the requirements of EPA's Clean Power Plan. Figure 1 shows that energy efficiency costs less than electric generation, no matter the energy source, and has other economic benefits. Whether states choose a mass-based approach (staying within the carbon dioxide emission reduction target in tons) or a rate-based approach (staying within the carbon dioxide emission reduction target in the form of a ratio of the pounds of carbon dioxide emitted per megawatt hour generated) to Clean Power Plan compliance, energy efficiency should be the primary strategy for compliance. Efficiency also offers benefits beyond greenhouse gas emission reductions, such as reduced electricity bills, a more reliable electric system, energy independence, and local economic development.

Despite many years of experience with customer-funded energy efficiency programs, there remains a great opportunity for expanded use of cost-effective energy efficiency measures throughout the United States. There are many reasons why this low-cost resource has not been fully utilized to date.

Electricity customers face a range of barriers that inhibit them from adopting cost-effective energy efficiency measures on their own. In particular, several types of electricity customers are hard to reach, and therefore are less likely to experience the direct benefits that efficiency program participation has to offer.

These hard-to reach customers include low-income households, renters, multi-family housing, small businesses, and government buildings. This factsheet provides strategies that states, public utility commissions, and program administrators can use to overcome these barriers and increase energy efficiency adoption by traditionally hard-to-reach customers.

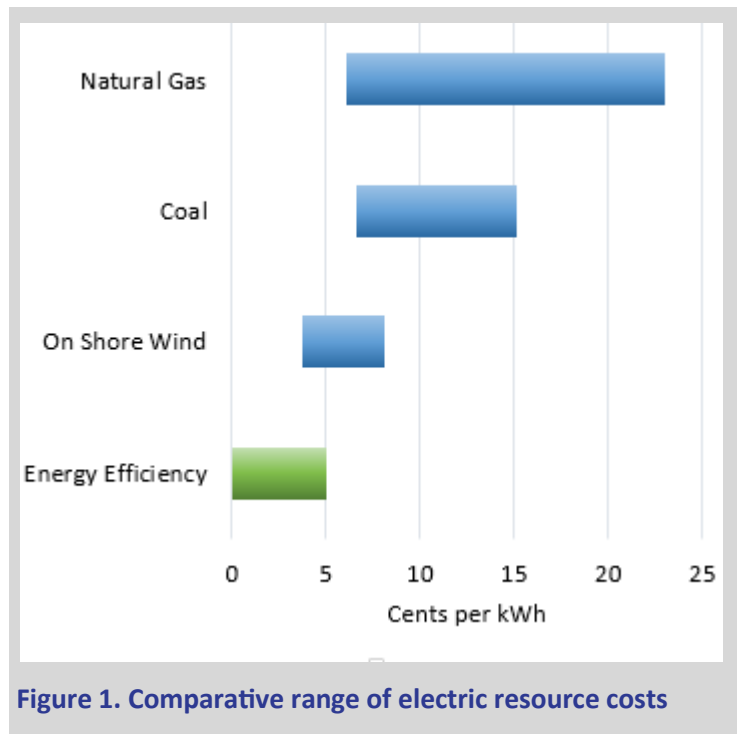


Figure 1. Comparative range of electric resource costs

Is Efficiency Fair to All Customers?

Not all electric customers have equal access to customer-funded efficiency programs. These programs do seek to overcome the many barriers that electricity customers face, including the cost of energy efficiency measures, but existing support only goes so far. In fact, efficiency program budgets are often limited in response to concerns about electricity rate impacts and customer fairness.

Regulators and other stakeholders frequently raise concerns about striking a fair balance between those customers who participate in customer-funded efficiency programs and experience greater benefits and non-participants. By expanding participation to include more customers—including those hardest to reach—energy efficiency programs extend the benefits of energy efficiency.

Making Efficiency Fair to All Customers

Energy efficiency programs enhance fairness by helping more customers reap the benefits of these programs.

Efficiency programs are fair if:

1. Over time, building codes and appliance standards bring efficiency to every home and business.
2. A variety of energy-efficient products and services are widely available to customers. By making more measures available, there is a greater chance of including participants with diverse needs.
3. All customers are aware of efficiency services that are available and the extent to which they can reduce their electricity consumption and utility bills.
4. All customers that seek energy efficiency options are served.
5. The majority of customers participate in energy efficiency programs. To achieve majority customer participation, states will need to increase funding and outreach.
6. The needs of efficiency program participants are understood to include not only racial-ethnic diversity, but also geographical and economic diversity.
7. Hard-to-reach customers—such as low-income, multi-family, small business, and municipal customers—are well-served. This may mean funding new and different kinds of outreach and education programs.
8. Tax bills are reduced by lowering energy costs in government buildings. Implementing energy efficiency in state and municipal buildings translates into savings for all taxpayers.
9. Efficiency barriers for all types of electricity customers are overcome or eliminated.

The table on the following page shows a variety of strategies available to mitigate concerns about customer

fairness and energy efficiency. These strategies for improving fairness in efficiency programs are based upon the following key concepts.

Low- and no-cost measures. States can adopt building energy codes; appliance standards; and building benchmarking, rating, and disclosure practices to promote energy efficiency across broad sectors of the economy at very low cost in general, and often at no cost to electric customers.

Diverse participation. Energy efficiency programs can ensure that a broad and diverse array of customers, including hard-to-reach customers, can enjoy reduced bills and other benefits of energy efficiency.

More participation. Energy efficiency initiatives can serve more customers in general, so that all or most electric customers will experience reduced bills.

Market transformation. Market transformation initiatives—intervening in a market to create a lasting change in manufacturing, distribution, and purchasing behavior as well as building construction processes—can be used to achieve widespread improvement across efficiency products and markets, thereby relying less upon customer-funded efficiency programs and reducing the burden to non-participants.

Public funding. Additional funding sources can be utilized to achieve efficiency savings for a greater number of participants.

The handbook accompanying this factsheet, *Fair, Abundant and Low-Cost: A Handbook for Using Energy Efficiency in Clean Power Plan Compliance*, can help states enhance energy efficiency fairness in advance of, or along with, Clean Power Plan compliance. The handbook discusses each strategy in detail, including how it promotes fairness, its potential to save more energy, the actions states must take to put the strategy in place, and examples of states, public utility commissions, and program administrators that have already implemented these strategies.

10 Ways to Increase Customer Participation in Energy Efficiency

State Policies and Initiatives

States can implement policies and initiatives to achieve energy efficiency savings across all households, businesses, and industries.

1. Adopt building codes and appliance standards

Adopt and enforce building codes and appliance standards to ensure that all new buildings and new products are as efficient as possible.

2. Let customers know how their energy use compares

Implement building benchmarking, rating, and disclosure practices to reveal efficiency levels and allow building owners, managers, and buyers to respond accordingly.

3. Enable governments to lead by example

Implement state and local government efficiency programs to reduce taxpayer energy bills and to push efficiency markets by “leading by example.”

Ratepayer-Funded Energy Efficiency Program Policies

Public utility commissions can implement energy efficiency program policies that drive program administrators to reach all customers.

4. Expand program reach

Adopt policies and initiatives that require program administrators to implement all cost-effective efficiency, improve cost effectiveness screening, and expand evaluation efforts to include program participation.

5. Use targets, carrots, and sticks

Provide program administrators with proper incentives to motivate them to serve hard-to-reach customers and maximize customer participation in general.

6. Collaborate

Establish collaboratives to allow low-income, business, and consumer advocates to provide input into program marketing, design, and implementation.

Ratepayer-Funded Energy Efficiency Program Designs

Commissions can influence program administrators to adopt programs and program designs that maximize participation by all customers, especially those that are hard to reach.

7. Bring efficiency to all customers

Include a variety of programs to ensure that options are available to all customers, including those who are hard to reach.

8. Maximize participation

Design efficiency programs to ensure that options are available to all customers, including those who are hard to reach.

9. Transform the efficiency market

Design efficiency programs that emphasize opportunities to transform efficiency products and markets.

Ratepayer-Funded Energy Efficiency Program Funding

Commissions can allow program administrators to use new funding sources to pay for a portion of their energy efficiency programs.

10. Leverage new funding

Utilize funds generated by Clean Power Plan compliance to implement future energy efficiency.

Table 1. Strategies for implementing fair energy efficiency

Energy Efficiency for Low-Cost Clean Power Plan Compliance

Most energy efficiency programs are funded through a small charge added to each kilowatt-hour of energy used by customers. These funds enable program administrators to offer incentives to customers that install efficiency measures. The Clean Power Plan can provide additional funding to support energy efficiency services for additional customers, including hard-to-reach customers. Figure 2 shows the four approaches states can use to generate additional funds for energy efficiency through Clean Power Plan compliance.

States interested in providing additional temporary funds for energy efficiency can opt into the Clean Power Plan's Clean Energy Incentive Program (CEIP). States and EPA each award program administrators a credit (or its equivalent in allowances) for every megawatt-hour saved through low-income energy efficiency programs in 2020 and 2021. Starting in 2022, program administrators can sell these allowances to power plants that need them for compliance. The revenue from credit sales can be used to implement additional energy efficiency efforts in a subsequent year. Utility regulators could require program administrators to earmark these funds to programs serving low-income or other hard-to-reach customers.

States interested in providing an additional ongoing funding stream for energy efficiency can take one of three approaches. These approaches generate funds from each year of savings that can be used to support program efforts in a future year or years.

1. Under mass-based compliance, states can allocate all or a portion of the proceeds from an auction of

allowances given to program administrators.

2. Or, states can allocate all or a portion of their allowances to program administrators to sell to coal or gas power plants.
3. Under rate-based compliance, program administrators can earn credits equal to the previous year's megawatt-hour savings and sell them to power plants.

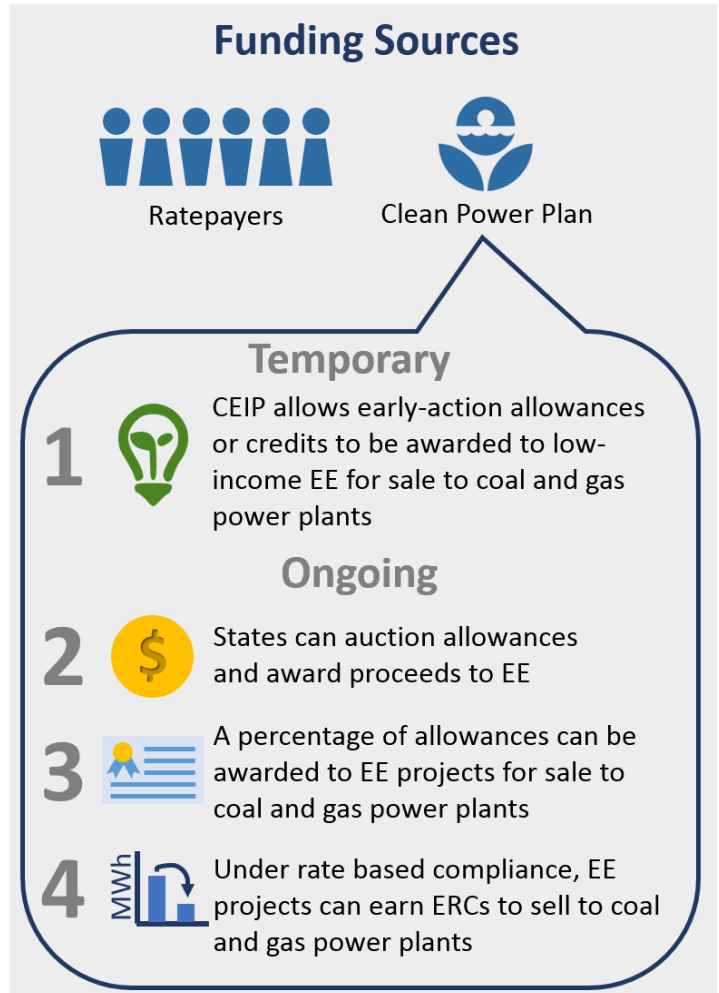


Figure 2. Potential future Clean Power Plan funding for energy efficiency

ABOUT SYNAPSE

Synapse Energy Economics, Inc. is a research and consulting firm specializing in energy, economic, and environmental topics. Since the Clean Power Plan was proposed in June 2014, Synapse staff have been actively analyzing and modeling the impacts of the rule. This work includes analyzing state-specific compliance options and providing planning support and resources to non-governmental organizations and state agencies.

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