UTILITIES AND ENERGY EFFICIENCY
A Look at State-Level Best Practices

While some utilities across the country have moved forward with programs to reduce demand-side energy use through outreach, marketing, rebates, and other incentives, many utilities still lag behind. There are a number of policies that can be implemented on the state or local level to remove existing market barriers that limit utility engagement with energy efficiency and create an incentive to act in a cost-efficient way that can save energy for consumers, create jobs, and reduce global warming.

There are three many types of electric utilities in the United States:

1. ***Investor-owned utilities (IOUs)*** – for-profit companies owned by their shareholders. These utilities may have service territories in one or more states.

2. ***Public power utilities*** - not-for-profit utilities owned by cities, counties, and tribes. City-owned utilities are referred to as *municipal utilities*, or "*munis.*"

3. ***Wholesale generators –*** including *investor-owned merchant companies, muni Joint Action Agencies, Co-ops* (non-profit entities owned by their members), and *Federal utilities*. Federal utilities include the Bonneville Power Administration (BPA), the Tennessee Valley Authority (TVA), and the Western Area Power Administration (WAPA). All three of these are wholesale-only utilities that provide electricity to other utilities for distribution to customers.

IOUs rates are traditionally set based on an estimation of costs of providing service over some period of time divided by an assumed amount of unit sales over that period. If actual sales fall below the project amount, the utility will thus earn less return, creating an incentive for utilities to sell more. In order to remove this disincentive, some states tried to address the lost revenues by providing compensation for what was lost due to energy efficiency programs. **Decoupling**, which disassociates the profits from the sale of electricity, is another way to address lost revenues.

Program cost recovery mechanisms, such as **Public Benefit Charges (PBC)** – where ratepayers are charged an additional fee which is used to finance energy efficiency programs – have been used in a variety of states to finance energy efficiency programs. To ensure that the money is being spent effectively, public benefit charges should be paired with policies that set targets for energy efficiency, such as **Energy Efficiency Resource Standards (EERS)**. **Performance incentives**, which allow utilities to earn a rate-of-return on its energy efficiency programs, can also address lost revenues and ensure that energy is being saved.

How much can we reduce energy consumption and expenditures? According to the American Council for an Energy Efficient Economy, on the national level, a policy that includes an RPS of 15% and an EERS of 15% by 2025 would reduce CO^2 emissions by 588 million metric tons, save 507 billion kWh in electricity, net 142,068 jobs annually, and save consumers $590.7 billion cumulatively.

Utilities can meet demand-side targets by implementing the following programs:

- **Rebates, reduced-cost energy audits, or direct install programs** that lower the cost for consumers to retrofit their home or install improvements.
- **On-bill financing programs** that provide consumers with loans that allow them to pay back the cost of a whole-home retrofit through the monthly energy savings it produces.
- **Consumer outreach campaigns** that educate consumers on behavioral changes that can reduce energy use.

Individually, these programs might succeed in small reductions in electricity use, but traditionally have poor participation rates. When used together, through a one-stop-shop approach, we can start to experience deeper participation and savings.

Three states currently lead the way with demand-side efficiency policies and programs, including:[1]

Vermont - Vermont continues to be a leader in Utility and Public Benefits Programs and Policies. Efficiency Vermont, which began operations in 2000, is the state's provider of electric energy efficiency services, funded by an energy efficiency charge to ratepayers. In 2006, state spending on electric efficiency programs was about $15.8 million, which is equivalent to 2.4% of utility revenues, more than any other state and nearly 5 times the national average. State efficiency programs saved about 1% of the state's electric needs in 2006 and in 2007 saved about 1.7%. In addition to spending and savings data, Vermont has set aggressive energy efficiency targets and established utility performance incentives for the state's energy efficiency utility (Efficiency Vermont) to encourage targets to be met. It also recently approved a decoupling plan for Green Mountain Power, one of the state's investor-owned electric utilities.

California - California's utility-sector energy efficiency programs date back to the 1970s and have significantly expanded over the past three decades. The state's investor-owned utilities and publicly-owned utilities administer energy efficiency programs. In 2006, utilities spent about $357 million on utility-sector efficiency programs, equivalent to about 1% of utility revenues. Electricity savings from these programs totaled about 0.7% of the state's electric needs in 2006. Also, decoupling has been in place for many years in California and is an integral policy for California's energy efficiency initiative.

Connecticut - In 2005, that state legislature passed the "Energy Independence Act," requiring 1% of its electricity demand to be met from energy efficiency by 2007, rising 1% per year to 4% in 2010. In 2006, Connecticut utilities spent the equivalent of 1.5% of its utility revenues on efficiency programs and met 1% of the state's electric needs from efficiency, which is five times higher than the national average. The state also has performance incentives in place to encourage and reward utilities for successfully reaching established performance targets. In 2007, the Connecticut legislature further increased efficiency efforts in the state, requiring the state's utilities to acquire "all available energy efficiency and demand reduction resources that are cost-effective, reliable, and feasible." Initial proposals by the state's utilities call for tripling energy efficiency spending over a five-year period to meet this mandate, and reducing sales below current levels by 2017.

[1] Case studies from the American Council for an Energy-Efficient Economy.