ee at work where electric efficiency and efficient regulation meet.

tilities view energy efficiency (EE) programs as vital components of their resource portfolio. Despite this, aggressive implementation of EE has lagged in the past in most states, often due to regulatory policies that put it on an unequal playing field with investments in supply-side resources. But adoption of

regulatory policies that effectively balance utility incentives and EE investments is on the upswing across the country, and this is clearly reflected in significantly larger budgets for EE programs nationwide.

The Challenges

A 2007 National Action Plan for Energy Efficiency report, "Aligning Utility Incentives with Investment in Energy Efficiency," listed three key financial criteria that support utility pursuit of EE:

 direct cost recovery, giving the utility a reasonable opportunity to recover its direct expenditures on program administration, implementation, and incentives to customers;

■ fixed-cost, or lost-margin, recovery (e.g., decoupling), allowing the utility to recover the drop in revenue that results from a program's success in lowering electricity sales; and

■ performance incentives, providing a way to level the playing field between supply- and demand-side investments by allowing utilities to earn a return on EE investments as they do with those in generation, transmission, and distribution.

Since then, states have made significant progress in removing obstacles in these areas. As reported by the Institute for Electric Efficiency in January, several states have enacted some type of fixed-cost recovery mechanism, and almost half now either have considered or are considering performance incentives for utility EE investments. The main challenges now are in reaching agreement on measuring and verifying savings due to EE programs.

The Takeaways

Eighteen states offer some type of fixed-cost recovery mechanism; over half have decoupling. In late 2007, for example, Connecticut mandated revenue decoupling proposals as part of each utility rate case. Massachusetts did so in 2008. Maryland approved a decoupling plan in 2007, and a similar plan was adopted by the District of Columbia in 2009. Oregon and Wisconsin also have new decoupling pilots.

Seven of those 18 states have lost-revenue recovery. In 2009, for instance, North and South Carolina approved a proposed lost-revenue recovery mechanism for Progress Energy Carolinas. Though the final order has not been made, North Carolina's commission approved a similar lost-revenue mechanism for Duke Energy, as well as the utility's virtual power plant proposal, Save-a-Watt. This program, already approved in Ohio, incorporates direct-cost recovery, fixed-cost recovery, and a performance incentive into one mechanism based on a percentage of the costs avoided

INCENTIVES AND INVESTMENTS

By Lisa V. Wood, executive director of the Institute for Electric Efficiency. by the utility company's EE programs. This year,South Carolina also approved Save-a-Watt .

Another eight states have fixed-cost recovery proposals pending regulatory approval.

Twenty-one states allow utilities to earn performance incentives on their EE programs: Eleven allow utilities to

earn a percentage of program costs for achieving savings targets; five let utilities earn a share of achieved savings; three allow utilities to earn a percentage of the net-present-value of the cost-to-serve avoided by their programs, and two allow an enhanced rate of return for achieving savings targets.

Wisconsin utilities can propose performance incentives as part of a general rate case. For example, Wisconsin Power & Light may earn the same rate-of-return on its investments in EE as it earns on other capital investments if savings targets are met.

Puget Sound Energy has a performance incentive that allows it to earn up to an additional 50 percent of program costs for achieved savings. Similar models operate in Vermont and Kentucky.

In Oklahoma, shared-savings mechanisms were approved for Public Service Oklahoma in 2008 and Oklahoma Gas & Electric in 2009. The programs are structured differently for each utility, but both allow for two different returns of up to 25 percent or 15 percent, depending on the type of program.

Savings Measurement Still a Thorn

As states align utility incentives with investments in efficiency, U.S. budgets for electric EE programs have increased significantly, from \$3.2 billion in 2008 to \$4.4 billion in 2009. Energy-savings impacts have increased substantially, too from about 69 billion kilowatt-hours (KWH) saved in 2007 to 96 billion KWH saved in 2008.

But the evaluation, measurement, and verification (EM&V) of EE program energy savings remains a contentious issue; particularly so in some states. This creates challenges for utilities and investors, because performance incentives are tied to verified savings. Indeed, as a result of difficult hearings on the subject in some states, Wall Street analysts have begun to discount utility EE earnings.

This is worrisome, especially as investments in EE are increasing. Much of the recent progress aligning incentives and substantially increasing EE budgets could unravel if uncertainty around the EM&V process is not resolved. A major challenge for 2010 is to address this issue by developing national EM&V guidelines.



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