

Seeing Green: Identifying and Anticipating Regulatory Issues and Risks in the Evolving Energy Efficiency Environment

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As states, utilities and consumers seek solutions to reduce both the demand for energy and its corresponding impact on the environment and energy bills, they are increasingly turning to energy efficiency and demand response programs to achieve these goals. With a majority of states now overseeing the administration of nearly \$4 billion worth of energy efficiency programs annually and some imposing penalties on utilities for failing to achieve state-mandated goals, utilities are confronting a variety of new legal issues and risks within a rapidly evolving field.

This article provides an overview of energy efficiency programs in the United States and a discussion of the regulatory issues utilities are encountering as they develop and seek regulatory approval of energy efficiency plans.

The U.S. Energy Efficiency Landscape

Within the span of a few short years, the U.S. has seen a boom in energy efficiency programs and accompanying regulation. According to the Consortium for Energy Efficiency's (CEE) 2008 Annual Industry Report, more than 35 states manage ratepayer-funded energy efficiency budgets.¹ Budgets for electric energy efficiency programs, for example, increased nearly 20 percent from 2007 to 2008 (from \$3.1 billion to \$3.7 billion), with some of the most dramatic gains seen in New Mexico (from \$312,000 to \$9 million), Ohio (\$3 million to \$62 million) and Illinois (\$8.5 million to \$41 million).² Since CEE began collecting complete data in 2006, state budgets have increased 42 percent.³

Although state energy efficiency budgets can include dollars for both electric and gas programs, electric programs have dominated, accounting for approximately 85 percent of state energy efficiency budgets.⁴ These electric programs are made up of individual energy efficiency and demand response measures that reduce consumption and demand. For example, residential sector programs might include discounted compact fluorescent light bulbs (an energy efficiency measure) and an air conditioning cycling program that cycles off the participant's air conditioner during periods of peak demand in exchange for a fixed incentive (a demand response measure). Commercial and industrial sector programs, on the other hand, may offer energy efficiency measures that provide incentives targeted at improved lighting technologies or efficiency motors. Some states also mandate programs targeted at low-income customers or the public sector. In Illinois, for example, a utility must coordinate with certain state agencies "to present a portfolio of energy efficiency measures targeted to households at or below 150% of the poverty level at a level proportionate to those households' share of total annual utility revenues in Illinois."⁵ In 2008, state budgets on average allocated 30 percent to residential programs, 48 percent to commercial and industrial programs, and 13 percent to low-income programs.⁶

State legislatures and regulators have played a significant role in facilitating this recent increase in energy efficiency programs, with legislation driving the substantial growth in energy efficiency budgets and programs, and dictating the mix of programs to be offered across customer segments. To ensure success, these new regulations often tie expanding budgets to specific energy reduction goals and may include penalties for a failure to achieve those goals. Key features of energy efficiency legislation have included:

- (i) annual energy savings goals;
- (ii) cost recovery and tariff design;
- (iii) a methodology for determining cost effectiveness of the programs;

- (iv) specific portfolio requirements, such as low-income or public-sector programs;
- (v) provisions concerning the evaluation, measurement and verification of the programs and their savings;
- (vi) incentives or penalties related to whether the energy savings goal is achieved in a given year; and
- (vii) required filings with and approvals by state public utility commission (PUC), including subsequent review of costs incurred and savings achieved.⁷

As described in the next section, these features raise a number of regulatory issues and risks.

Regulatory Issues and Risks in Implementing Energy Efficiency Programs

This section is based on the recent representation of an electric utility in obtaining PUC approval of its statutorily-mandated energy efficiency plan, and identifies the key issues utilities should expect to face in proposing and implementing energy efficiency programs. To the extent legislation has not yet been enacted, these issues are offered as considerations during the legislative drafting process to ensure that any energy efficiency law is comprehensive in scope and clear in its requirements.

In our particular case, newly enacted legislation in the state required electric utilities to implement energy efficiency programs for their residential and business customers to meet annual energy reduction goals. Because the legislation required that the utility submit an energy efficiency plan for approval of the PUC, we coordinated with utility personnel and the utility's national energy efficiency experts in the development of the plan and accompanying testimony, and assisted with all phases of the litigation before the PUC, including discovery, briefing, hearing preparation, the hearing itself, and post-hearing briefing. Although the unique regulatory requirements of each jurisdiction (or lack thereof) will inform and shape the set of regulatory issues confronting a particular utility, below is a summary of common issues likely to be encountered in drafting and implementing an energy efficiency plan.

Satisfying a Total Resource Cost Test

In developing an energy efficiency plan, various jurisdictions require that the individual measures or plan as a whole be "cost-effective." This typically means that the measure or plan satisfies a statutorily-defined total resource cost (TRC) test that compares the benefits realized from a given measure or plan to the costs incurred under such measure or plan. Analyses may be conducted at different stages of plan development to ensure the plan passes the TRC test at each stage. Some states, however, may exempt certain low-income or public sector programs from such analysis to ensure their inclusion despite not passing the TRC test.

Providing for Flexibility in Plan Implementation

If the utility will be implementing an energy efficiency plan that has been approved by a PUC, attention should be paid to the degree of flexibility requested by and granted to the utility in program administration and operation, including the ability to modify program design and budgets and to add or discontinue programs in order to achieve the statutory goals.

Coordinating with State Agencies

If the regulatory framework requires that one or more state agencies administer certain programs or a percentage of programs (e.g., low-income or public sector), the utility and state agency must

coordinate on budget allocation, programs, cost-effectiveness under the TRC test and energy savings.

Managing Energy Savings

Because utilities often develop programs to meet annual savings goals within budget constraints, plans should consider contingencies to address excess energy savings (and excess spending, if any) in a given year and, in particular, whether such excess can be carried over and applied to the goals and budget for the following year.

Ensuring Cost Recovery (Tariff Design)

Like energy savings, any plan and related tariff(s) should take into account annual spending limitations and should consider contingencies in the event spending exceeds the limit set by statute or regulation. For example, legislation may impose limits on rate increases related to the implementation of the programs, which in turn may limit the amount of spending on energy efficiency and demand response programs in a given year.

Evaluating Plan Implementation and Energy Savings

Evaluation, measurement and verification (EM&V) is one of the most contested issues in obtaining approval of and implementing energy efficiency plans because of its focus on measuring energy savings. Examples of EM&V issues include the following:

- *Defining the types of evaluations and their frequency.* Considerations include what types of evaluations are to be conducted (e.g., “impact evaluations” that estimate the actual savings realized as a result of the programs, or “process evaluations” that examine the programs’ operations and identify improvements), who will be conducting the evaluations (e.g., an independent evaluator or the PUC), how the evaluator will be retained (e.g., by the utility or PUC), and how often the evaluations will be conducted.
- *Measuring savings.* Determining how energy savings are measured is a critical component of the planning and EM&V processes, and is not necessarily addressed in legislation, despite the assessment of penalties for failure to meet energy savings goals in some states. There are several key issues to consider in determining how the energy savings attributable to a given energy efficiency measure should be calculated.

First, because energy efficiency measures are installed throughout a given plan year, many states permit annualization of savings where the evaluator can attribute an entire year of savings to an installed measure no matter when that measure was installed during the year.

Second, states may “deem” (adopt) upfront measure savings values for certain non-weather sensitive measures where the savings are well established and readily available.

Third, in calculating net-to-gross ratios (the ratio of the net energy savings of a program to the gross savings), states typically take into account, in some way, the following factors: “free riders,” those program participants who received an incentive, but who would have installed the measure even in the absence of the program—they are subtracted from gross savings; and “spillover,” those persons who were influenced to install measures but did not take advantage of the available incentive—they are added to gross savings.

- *Establishing evaluation protocols and hiring an independent evaluator.* Factors include what processes will be used to establish evaluation criteria and to hire an evaluator, including the participants in and funding of such processes.
- *Setting an evaluation budget.* If not set by statute, the percentage of the overall budget to be set aside for evaluation must be determined.

PUC Review of Energy Savings and Costs Incurred

Depending on the state, the utility may be subject to one or more annual proceedings before the PUC. Such reviews can include the prudence of the costs incurred by the utility during the plan year, and whether the utility achieved the energy savings goal for that year. To determine energy savings, the PUC may rely on existing findings or hire its own evaluator to make such a determination. In the event that the utility fails to achieve the energy savings goal for a given year and a penalty applies, the PUC may also levy the appropriate penalty.

Conclusion

As described in the preceding paragraphs, the planning and approval process for energy efficiency programs lays the foundation for their effective implementation and administration. Although the main focus for the utility during the planning phase is the development of a portfolio of energy efficiency programs that is designed to meet energy savings goals, it is crucial that the utility also anticipate the various plan implementation and administration issues within its unique regulatory framework (e.g., flexibility, cost recovery and EM&V) because of their potential to adversely affect the measurement of energy savings. Ultimately, this forward-looking approach can provide some upfront certainty for the utility and other interested parties if the issues are raised before, and ruled upon by, the PUC.

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¹ Consortium for Energy Efficiency, 2008 U.S. Annual Industry Report, *U.S. Combined Budgets*, http://www.cee1.org/ee-pe/2008/us_combo.php (last visited Jan. 22, 2009).

² Consortium for Energy Efficiency, 2008 U.S. Annual Industry Report, *U.S. Electric Budgets*, http://www.cee1.org/ee-pe/2008/us_electric.php (last visited Jan. 22, 2009).

³ See *supra* note 1.

⁴ See *supra* note 2.

⁵ 220 ILCS 5/12-103(f)(4).

⁶ See *supra* note 2.

⁷ Illinois' energy efficiency and demand response legislation provides examples of virtually all of these features. See generally 220 ILCS 5/12-103.

⁸ *This article has been prepared by Sidley Austin LLP for information purposes only and does not constitute legal advice. This information is not intended to create, and the receipt of it does not constitute, a lawyer-client relationship. Readers should not act upon this without seeking advice from professional advisers.*