Can We Get There From Here? Identifying Key Factors in Meeting Aggressive New State Energy Efficiency Savings Goals

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Abstract

Utility sector energy efficiency programs are entering a new era. A convergence of strong economic and policy concerns has resulted in many states announcing large and unprecedented goals for energy savings from their utility-sector energy efficiency programs. Some of these goals are two to three times savings levels currently being achieved in states with long records of successful, well-funded programs.

This research project focused on two important practical questions: (1) What does current experience suggest about what magnitude of savings goal is reasonable?; and (2) If much more aggressive energy savings goals are established, what factors will likely be important in enabling states/utilities to achieve those goals? The research drew upon various methodologies, including direct surveys and data collection from leading states; review of recent industry literature; soliciting information from a panel of prominent experts within the industry; and review of our own extensive files and databases on utility sector energy efficiency policies and programs.

Introduction

Utility sector[1] energy efficiency programs of some type have been present in the U.S. since the late 1970s. The focus and magnitude of those efforts has fluctuated over that time period, but overall, a number of reviews have judged these utility-sector energy efficiency efforts to be generally quite cost-effective (e.g., Cowart, 2001; Kushler, York & Witte, 2004; U.S. DOE & U.S. EPA, 2006).

Despite the ample evidence of cost-effectiveness of these programs as demonstrated by rigorous program evaluations, in most jurisdictions, energy efficiency has been regarded as a fairly minor component of overall utility resource portfolios - - more of a symbolic placeholder than a core component of the utility system.

However, this picture has been undergoing dramatic transformation over the last few years. Growing awareness and concern over the economic and environmental costs associated with the construction and operation of fossil-fuel electricity generation plants has led to increasing recognition of the value of energy efficiency programs in deferring or replacing those investments. The role of energy efficiency has evolved from being largely a token gesture or a "public benefits" set-aside, to being a top-priority utility system resource. Indeed, several states have established state policies that mandate that energy efficiency is "first" in the "loading order" of utility resources, and/or that their states should capture all cost-effective energy efficiency. A related recent policy development is the establishment of specific, aggressive new energy savings goals for utility-sector energy efficiency programs. In just the last two years, Minnesota has passed

[1] As used in this paper, "utility-sector" is intended to encompass all energy efficiency programs that are paid for through utility customer rates or other charges on utility bills. This would include programs administered by utilities as well as programs where the utilities merely collect the revenue and transfer it to other energy efficiency program administrators (e.g., government agencies or other third parties).

legislation requiring energy efficiency savings equivalent to 1.5% of total sales each year; Illinois and Ohio have passed legislation requiring a ramp-up to 2% per year in the next decade; New York and Maryland are discussing policies that would require over 2% per year by 2015; and Vermont is heading toward a commitment of over 2% per year in the next few years. A number of other states are discussing goals in the 1% to 2% range, and an accord was signed by seven Midwestern governors that calls for 2% system savings within each signatory's state. To put these developments in context, in our last comprehensive review (Kushler, York & Witte, 2004), the very few top performing states in the nation were only achieving savings in the area of 0.8% per year.

The apparent gap between past experience and the new policy requirements has led to questions about whether these goals are reasonable and if so, how they might be accomplished. The research we describe in this paper was performed to address those questions. Our research had two basic objectives: (1) to identify the historical top-performing states in terms of utility-sector energy efficiency programs and explore factors that may have contributed to their high level of performance; and (2) to identify factors that may enable significant increases in those top levels of performance to meet the aggressive goals being established in many states. In our research we examined data on energy efficiency programs in leading states and surveyed leading industry experts.

Methodology

We used a variety of methodologies to gather data for this project, including: direct surveys and data collection from leading states; collection and analysis of federal Energy Information Administration (EIA) data on the utility industry; review of recent industry literature; and soliciting information from a panel of prominent experts within the industry.[2] We also drew upon our own extensive files and databases on utility-sector energy efficiency policies and programs.

Our first objective was to identify what could be considered the "top tier" of states in terms of historical and current utility-sector energy efficiency accomplishments. To accomplish that objective, we relied upon two methods: (1) we asked a panel of energy efficiency program experts recruited by ACEEE for this project to identify their "top ten" states in terms of utility-sector energy efficiency; and (2) we gathered data on actual reported energy efficiency program spending and savings in each state. We initially intended to examine both electric and natural gas programs, but limited data availability on natural gas energy efficiency programs caused us to focus our analysis on electric energy efficiency programs only.

Results

To identify a set of leading states we asked our panel of national experts for their listing of the "top ten" states in terms of their electric utility-sector energy efficiency programs. The expert ratings are presented in the first four columns of Table 1, ordered by the median rank they received from the experts. The table also shows the number of our expert raters that included each state in their "top ten". Overall, the results demonstrate a fairly high degree of consistency among the experts, with nearly all raters including the top 7 or 8 states on their lists, and only 14 states being listed at all.

Concurrently with our experts' nominations of top tier states, we also gathered data on actual reported energy savings results across all states. For that variable, we used a metric consisting of annual electric energy efficiency program savings (in MWh), divided by total electric retail sales (in MWh). We also computed several other indicators of relative energy efficiency program effort and achievement,

[2] For this project we recruited a panel of nine prominent national experts with extensive experience in the field of utility-sector energy efficiency programs and policies. This included individuals with experience in research and program evaluation as well as program design and administration.

including total energy efficiency program spending as a percent of total utility revenues and total energy efficiency program spending per capita for each state. These results are also presented in Table 1.

In looking at the results presented in Table 1, we found that the experts' rankings of the top states do not necessarily conform directly to any of the three primary quantitative indicators of energy efficiency activity (i.e., spending as a percent of revenues; spending per capita; savings as a percent of total sales). We performed simple regressions of these variables and found no significant correlation (see Kushler et al. 2009 for details of this analysis).

The most likely explanation for this relative lack of correlation between state ranking and the specific spending/savings data is that factors beyond just numerical output influenced our experts' perceptions of what constitutes a "leading state." Indeed, we did not provide the experts with any background data or information on programs; we simply asked them to name the top ten states based on their perceptions and experiences. Despite this lack of correlation, it is clearly true that the experts selected most of the top performing states in the nation in terms of these quantitative indicators. For example, the states in Table 1 include the top eight states in the nation in terms of energy efficiency savings as a percentage of electricity sales, and 12 of the top 16 states.[3] The only top 16 states not included in the experts' lists are very small states (New Hampshire, Idaho, Hawaii, and Maine) with very small energy efficiency programs in absolute terms. Conversely, only two of the experts' selected states were not in the top 16 on that energy savings indicator. These were New Jersey (19th) and Texas (roughly tied for 21st), which are very large states with some unique policy approaches that help make them noteworthy. We decided to go with the list of 14 states nominated by our expert panel as a good representation of "leading states" in terms of their utility-sector energy efficiency programs.

A key finding relative to the rapid development of aggressive energy savings goals, is that with one very recent exception (Vermont), none of these "top states" are really yet near the level of energy efficiency savings (i.e., 1.5% to 2.0% or more) that will eventually be required under recent policies established in several states. However, we can report that the trend in the magnitude of savings is up, and that a number of states now exceed the 0.8% savings level that had been the ceiling in our 2004 research.

Relationship of Energy Efficiency Spending with Energy Efficiency Performance

Figures 1 and 2 illustrate the relationship of energy efficiency spending as a percent of revenues (Figure 1), and energy efficiency spending per capita (Figure 2), with energy savings as a percent of total utility retail sales, across these 14 leading states.

As the figures illustrate, there is a reasonably strong correlation between the relative level of energy efficiency spending (both as a percent of utility revenues and per capita) and energy savings results, among these 14 "top states". The relationship is obviously not a perfect one. There are some states that spend proportionately a little less and save proportionately a little more (and vice versa). One important conclusion to draw from these results is that to achieve high savings levels will require relatively high levels of funding for energy efficiency programs.

[3] See the recent ACEEE report: *The 2008 State Energy Efficiency Scorecard* (Eldridge, et. al., 2008) for complete data on all 50 states.

Table 1. Electric Energy Efficiency Program Savings and Spending Data for Leading States

State	Median Rank by Expert Panel	Number of times selected	Rank with tie-breakers used	Average rate to retail customers 2007 data from EIA	EE Spending: Total (includes utility and non-utility public benefit programs)		Total EE spending as % total revenues for all utilities (IOUs and POUs)*		EE spending per capita		EE annual savings -- statewide total -- EIA plus non-utility data (or other data source)		EE annual savings -- statewide as % of total state kWh sales (IOUS and POUs)*	
				Cents/kWh	$million		%		$/capita		GWh		%	
					2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
California	1	9	1	12.3	357	646 (est)	1.1	1.9	9.85	17.64	1,912	2,275	0.7	0.9
Massachusetts	3	9	2	14.6	125	120	1.5	1.4	19.43	18.49	455	490	0.8	0.9
Connecticut	3	7	3	16.0	71	98	1.5	2.1	20.31	28.05	328	355	1.2	1.3
Vermont	4	9	4	12.2	16	24	2.4	3.5	25.46	37.78	63	105	1.1	1.8
Wisconsin	6	8	5	8.4	78	81	1.4	1.4	13.94	14.32	451	468	0.6	0.7
New York	6	8	6	14.7	224	242	1.0	1.1	11.61	12.40	824	NA	0.6	NA
Oregon	7	9	7	7.3	63	69	2.0	2.2	17.15	18.54	370	437	0.8	0.9
Minnesota	7	6	8	7.1	82	91	1.8	1.9	15.96	17.53	412	464	0.6	0.7
New Jersey	9	7	9	12.4	83	96	0.9	1.0	9.60	10.96	228	242	0.3	0.3
Washington	9	6	10	6.6	113	127	2.2	2.4	17.77	19.67	631	635	0.7	0.7
Texas	11	5	11	9.7	58	80	0.2	0.2	2.47	3.36	397	458	0.1	0.1
Iowa	11	3	12	6.3	55	56	1.8	1.8	18.60	18.82	315	322	0.7	0.7
Rhode Island		2	13	13.5	17	17	1.6	1.6	16.18	16.23	96	65	1.2	0.8
Nevada		1	14	9.4	24	29	0.7	0.8	9.63	11.40	216	206	0.6	0.6
Median					74	86	1.5	1.7	16.07	17.58	384	437	0.7	0.7
Mean					98	127	1.4	1.7	14.85	17.51	478	502	0.7	0.8

Note: Energy efficiency spending and savings estimates are based on the best available data from applicable state agencies in each state.
**"IOUs" are "investor-owned utilities" and "POUs" are "publicly owned utilities"*

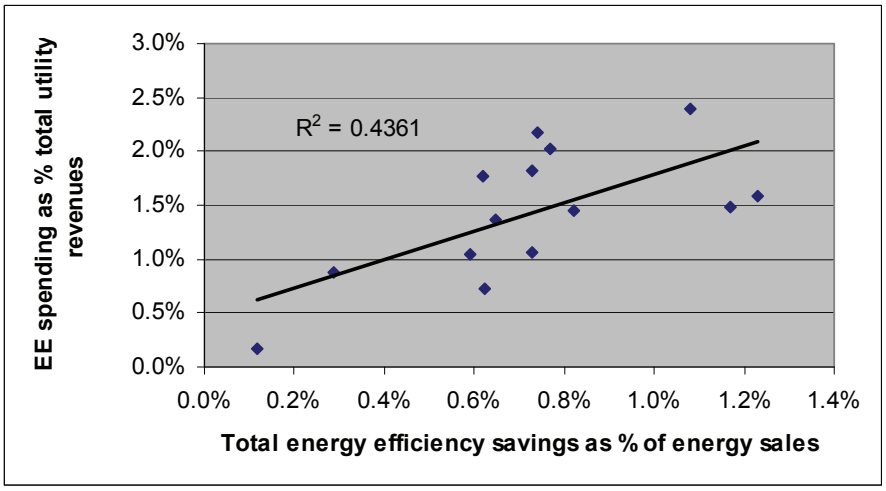

Figure 1: Energy Efficiency Spending as a Percentage of Revenues versus Energy Savings as a Percentage of Energy Sales

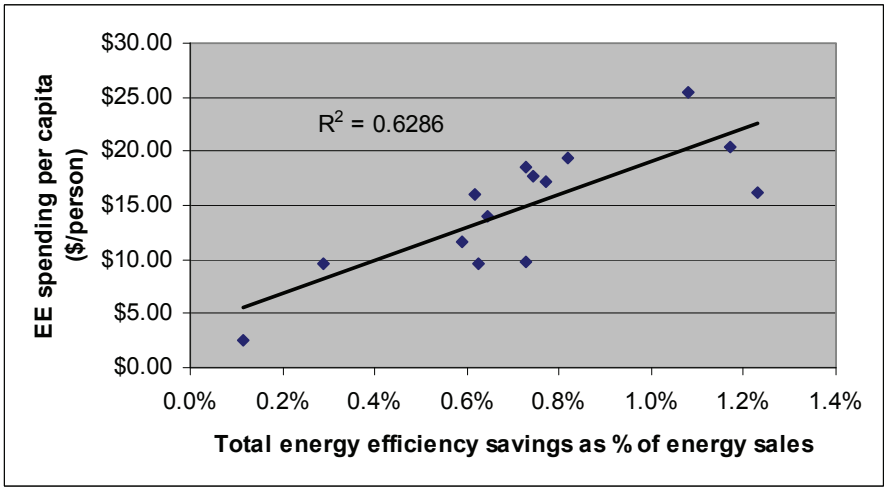

Figure 2: Energy Efficiency Spending per Capita versus Energy Efficiency Savings as a Percentage of Energy Sales

Energy Efficiency Savings by Sector and Program/End-Use

At the broadest level, we found that energy efficiency spending was relatively evenly split between the residential and commercial and industrial (C&I) (median across the states of 44% residential and 56% C&I), but that savings were relatively skewed toward the non-residential sector (median of 63% C&I). This would seem to conform to the widely held perception that the C&I sector tends to have more cost-effective energy efficiency opportunities.

We also examined the amount of electric savings being achieved by the type of program or end-use. For this issue we were only able to obtain data at a sufficient level of detail from a limited number of states. Nevertheless, some noteworthy patterns did emerge. In particular, we found that overall energy efficiency savings are heavily dominated by the "lighting" end-use. This is true for both the residential and C&I sectors, although much more so for the residential sector. (Across our example states, lighting accounts for between 63% and 92% of all reported residential savings, and. 55% to 69% of all reported C&I savings.)

Refrigeration and HVAC are the other notable residential end-use savings contributors, while industrial process efficiency, compressed air, motors and refrigeration are the other major contributors in the C&I sector. Overall, however, these findings reinforce a commonly-heard lament in the industry that energy efficiency portfolios must increase their focus and achievements in non-lighting areas. This will become a critically important factor in the residential sector as the new federal lighting standards come into effect in 2012.

Effect of Electricity Prices

The price of electricity in a given state is often posited as a variable that may help explain the relative prominence of utility-sector energy efficiency programs. The hypothesis is that as consumers face higher electricity prices, they would presumably increase interest, and participation, in energy efficiency programs. To test this hypothesis we analyzed the relationship of electricity prices (using an average statewide retail price derived from Energy Information Administration data) to utility-sector energy efficiency spending and savings. We found little or no relationship between average electricity rate and the level of utility sector energy efficiency program spending in a state (R^2= .06), and just a slight positive relationship (R^2= .11) between average electricity rate and energy efficiency savings as a % of electricity sales (see Figure 3).

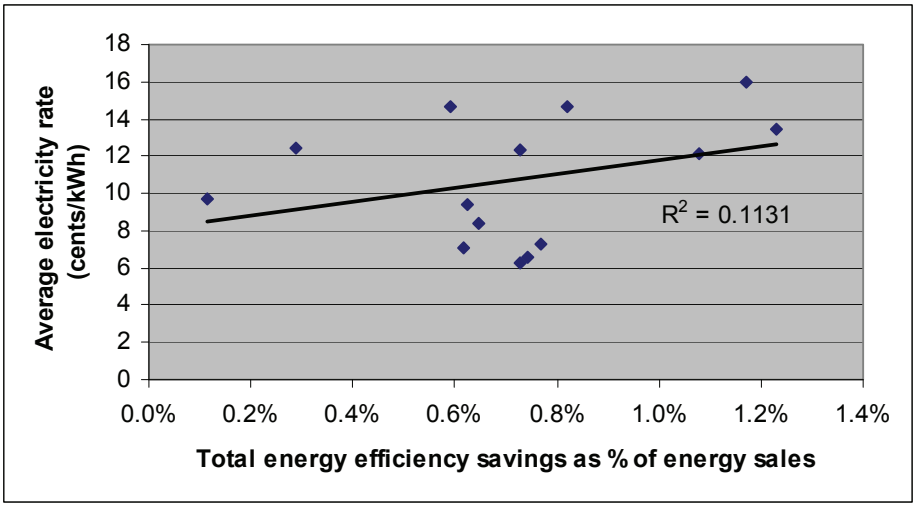

Figure 3: Average Electricity Rates versus Energy Efficiency Savings as a Percentage of Energy Sales

The direction of relationship is intuitively logical (i.e., higher prices would be expected to help facilitate greater energy efficiency). But the magnitude of the relationship is slight, and dwarfed by the relationship between energy efficiency savings and the level of energy efficiency program spending per capita (R^2 = .63) presented earlier in Figure 2.

One observation is that there are clearly "low-cost" states (i.e., states with relatively low existing electric rates) that have achieved strong energy efficiency savings. In this group of leading states, similarly strong energy savings (in the range of 0.6% to 0.8% of sales) were produced in states with electricity rates that varied by more than a factor of two. While some low-cost states have achieved relatively high program savings, it also is true that the very highest savings levels thus far have been in a couple states with very high electric rates.

Expert Ratings of Key Factors Associated with Strong Energy Efficiency Performance

As another approach to seeking to identify important elements or conditions that may contribute to strong success with utility-sector energy efficiency programs, we asked our panel of industry experts to rate each of 16 key factors we identified, which based on our experience, could plausibly be expected to affect energy efficiency performance. We also asked our experts to consider two dimensions of this issue: (1) what has been the importance of each factor up until now; and (2) what is the likely importance of each factor in achieving future higher energy efficiency goals? These 16 factors and our experts' responses are shown in Table 2.

Important Factors Up Until Now. The most important factors related to energy efficiency program performance are those that reflect strong state policy requirements. The leading factor, given the top rating by a majority of our experts, was "the relative size of the energy efficiency program budget". Closely following were the factors: "Having a strong state legislative requirement for energy efficiency" and "Having a regulatory commission very supportive of energy efficiency".

The importance of having higher quality programs appeared in the next cluster, along with two factors relating to utility management motivation: "The personal commitment of utility top management", and "Having utility shareholder incentives for energy efficiency results". Interestingly, the importance of "having some penalty for poor performance" was rated much lower than having utility shareholder incentives (4.0 vs. 6.8).

The structural environment within which the energy efficiency programs operate did not appear to be very important. The "Particular characteristics of state/service territory (e.g., demographics, economy, climate)"; whether a state is "restructured" or not, and "who administers the energy efficiency programs," were all relatively low rated (ranging from 4.4 to 5.1). Even "the price of electricity (gas)" received only a moderate rating (5.6).

One other interesting observation is that "the perceived cost of carbon" was the lowest ranked factor (3.4) in the rating of importance up until now, but the projected future importance is quite different, as discussed in the next section.

Likely Importance in Achieving Future Aggressive Energy Efficiency Goals. In general, the three key factors focusing on strong policy requirements (i.e., size of budget, having a strong legislative requirement, and very supportive regulatory commission) remained at the head of a list, although "The personal commitment of utility top management" did jump up into that top tier.

Moreover, the whole issue of utility motivation appears to be generally regarded as an increasingly important factor moving forward, as the ratings of both "Having utility shareholder incentives…" and "Having decoupling in place" each jumped substantially in the 'future importance' ratings. Given that increasingly large energy savings requirements would have increasingly large adverse financial impacts on utilities under traditional regulation, it's quite logical that these factors would be taking on a growing importance.

Another interesting result in the table relates to the old conundrum of whether having had energy efficiency programs in place for a long time is an advantage or a disadvantage in terms of facing aggressive new energy savings requirements. Does the advantage of experience and infrastructure outweigh the possible disadvantage of having harvested all the "low hanging fruit"? In the view of our experts, it appears that experience wins, as they rated "Increased experience and capability due to history of prior energy efficiency programs" a 7.7, more than twice the importance rating of "Diminished remaining potential due to history of prior energy efficiency programs" (3.8).

Table 2. Experts' Ratings of Key Energy Efficiency Factors

Experts were asked "How important are each of the following factors in enabling a state to achieve large utility energy efficiency program savings results? [Please rate each factor on a 1-10 scale, with '10' being extremely crucial]."

Factor	Importance Up Until Now (Mean Rating of Raters)	Number of Raters Giving Highest Rating Level to This Variable	Likely Importance In Achieving Future Higher Goals (Mean Rating of Raters)	Number of Raters Giving Highest Rating Level to This Variable
The relative size of the EE program budget	8.8	Five	9.4	Four
Having a strong state legislative requirement for EE	8.3	Three	9.4	Six
Having a regulatory commission very supportive of EE	8.0	Three	8.5	Four
Having EE programs that are higher quality than typical industry practice	7.1	One	8.0	Three
Having utility shareholder incentives for EE results	6.8	One	8.3	Three
The personal commitment of utility top management	6.8	Four	8.9	Five
Increased experience and capability due to history of prior EE programs	6.4	One	7.7	One
How high the price of electricity (gas) is	5.6	None	6.8	None
Having decoupling in place	5.4	One	7.8	Three
Who administers the EE programs (utility vs. non utility)	5.1	None	5.1	None
Existing state building codes/ efficiency standards, which affect "baseline" conditions	4.9	None	5.9	None
Particular characteristics of state/service territory (e.g., demographics, economy, climate)	4.5	None	5.3	None
Whether a state is "restructured" or not	4.4	One	4.4	One
Having some penalty for poor utility EE performance	4.0	None	5.0	None
Diminished remaining potential due to history of prior EE programs	3.8	None	4.1	None
The perceived cost of carbon emissions	3.4	None	7.9	None

Finally, the factor with the single biggest jump in importance when looking to the future was "The perceived cost of carbon emissions", which more than doubled (3.4 to 7.9) in the rating of likely future importance. This clearly suggests a strong recognition of the important role that energy efficiency will play as a strategy for meeting greenhouse gas reduction targets.

State Policies Related to Utility-Sector Energy Efficiency

Another area of examination included in this study was to consider the degree and type of policy support for utility-sector energy efficiency in each of our 14 selected "leading states". We gathered information from the states concerning their status with respect to five key aspects of state energy efficiency policy:

Type of Cost Recovery for Energy Efficiency Programs. We found that every one of these leading states has a well-established and substantial funding mechanism for providing the revenues necessary to operate the energy efficiency programs. We also found a wide variety of funding mechanisms in place across these leading programs, from statewide "system benefit charges" to specific rate components developed on an individual utility basis (specific tariff riders for programs or as part of regular utility rate setting and cost recovery), and found no reason to conclude that the type of funding mechanism per se is a causal factor in determining savings results.

Shareholder Incentives. Nine of the 14 states in our "top states" group utilize an approach whereby the utilities are the primary administrators of the utility-sector energy efficiency programs. Of those nine top states, seven feature some type of "shareholder incentive" tied to utility energy efficiency performance.

The other five states (VT, WI, NY, OR, NJ) in our top states group had their utility-sector energy efficiency programs primarily administered by a state agency or an independent non-profit organization, so technically the issue of utility shareholder incentives for good energy efficiency performance did not apply. However, two of the states with non-utility administration (VT and NJ) have specific economic incentives tied to energy efficiency savings performance by the entities responsible for delivering the programs. Two of the other states (WI and NY) have a mostly state-wide public benefits program administered by state agencies, but also have some separate utility-administered efficiency programs. Wisconsin, is considering the addition of utility shareholder incentives in conjunction with utility-administered programs. Finally, some investor-owned utilities in New York have begun to offer programs and there is a shareholder incentive in place for these programs.

Decoupling. At the time of the energy savings achievements that we have used to characterize our top states (i.e., 2006 and 2007), of the14 top states only California had decoupling in place for electric utilities, with Vermont having just adopted it for 2007 for its largest utility. (A few states in the group have implemented decoupling for natural gas utilities.) Clearly, decoupling had not historically been a major factor in the energy efficiency success of leading states.

However, consistent with the ratings of our expert panel regarding key factors that will be important in the future, there is a rapidly growing interest among leading states in the policy of electric decoupling. At least three key states (Connecticut, Massachusetts and New York) have decided that electric decoupling will be implemented utility-by-utility in their next rate cases, and one state (Wisconsin) has already approved a settlement agreement containing decoupling for one utility. Several other states are in various stages of investigating or proceeding toward implementation of electric decoupling (including Minnesota and New Jersey).

In our assessment, the policy of electric decoupling will become increasingly important as states set energy savings goals that are large enough that total utility sales growth will be flat (or even declining) over time. Historically, electric utilities have tended to resist decoupling because they perceived that they could likely "win on the upside" by having total sales exceed forecasted sales levels. As large new energy efficiency requirements change that perception, decoupling will be much more likely to be embraced as a policy to mitigate the adverse economic consequences of customer energy efficiency on utilities.

Administrative Approach. There is a good mix of administrative approaches across these top 14 states. Nine states feature predominantly utility administration (CA, MA, CT, NM, WA, TX, IA, RI, NV); three states have administration by an independent non-profit organization selected by the state (VT, OR, WI); and two states feature administration by a state agency (NY, NJ).[4] The fact that there is such a variety of administrative approaches across these "top states" reinforces the conclusion in our prior research: that there is no single "best" approach to the administration of utility-sector energy efficiency programs. Rather, there are strong successes using each type of administration, and a decision on administration is best made after considering the unique characteristics of a particular state, including the characteristics of potential program administrators and related program implementation infrastructure (e.g., see Kushler, York & Witte, 2004). We see no reason to change that conclusion, based on the results of this current research.

Moreover, as states explore ways to aggressively increase their total energy efficiency production, they are increasingly looking at "combined" approaches whereby more than one administrative channel is involved in energy efficiency program delivery (for example., California has added utility energy efficiency procurement to their existing "public benefit charge" supported programs and New York is supplementing their NYSERDA programs with utility-operated energy efficiency efforts.)

Energy Efficiency Resource Standard (EERS) Requirement. It is noteworthy that in the opinion of our expert panel, "having a strong state legislative requirement" for energy efficiency was the second highest rated factor "up until now" and tied for the highest factor (with size of the energy efficiency budget) for future importance. Over the past few years, the trend in the industry has been to shift from setting *spending* requirements to setting *energy savings* requirements (most often expressed as a percentage of total utility sales), which has given rise to the terminology "Energy Efficiency Resource Standard" or "Energy Efficiency Portfolios Standard" (analogous to a "Renewable Portfolio Standard"). In a 2008 review, ACEEE had identified a total of at least 18 states with some form of an EERS/EEPS (http://aceee.org/energy/state/policies/EERS_Summary_5-7-08.pdf).

Among our 14 top states in this project, at least eight could be classified as having an EERS type of approach. Some of these have been established legislatively (e.g, CT, MN, TX, NV), while others have been established administratively, including through regulatory orders (e.g., CA, VT, NY). The EERS approach is a relatively new development in the industry, so it cannot be considered a major factor in the historical energy efficiency success of these states. However, it seems clear that establishing strong energy savings requirements will be a leading policy tool used to secure large utility-sector energy efficiency accomplishments in the future.

Conclusions

In recognition of the significant challenges facing states and utilities in complying with the aggressive Energy Efficiency Resource Standard (EERS) policies that are being increasingly adopted by state policymakers and regulators, this project sought to identify and explore key factors associated with

[4] Both New York and Wisconsin have public benefits energy efficiency programs administered by state agencies that serve most customers in each state. However, each state also has some parallel utility-administered energy efficiency programs.

success in achieving high levels of energy efficiency savings. We solicited input from acknowledged experts in the utility-sector energy efficiency field; we identified a core list of 14 "top states" in terms of utility-sector energy efficiency achievements; we analyzed reports and data from those states and from the U.S. Energy Information Administration; and we interviewed key representatives from each of those top 14 states. The following highlights some of our observations.

- A number of states are achieving very significant levels of utility-sector energy efficiency savings, and these savings levels show increases over what was being achieved earlier in this decade.

- However, with one exception (Vermont), no states are yet reporting energy efficiency savings at the higher levels being called for in a number of recent state policy decisions (i.e., in the range of 1.5% to 2.0% per year or more).

- A number of key factors are associated with high levels of utility-sector energy efficiency achievements, including having relatively high levels of funding for energy efficiency programs and having strong legislative and regulatory requirements and support for energy efficiency.

- In meeting future, higher, energy efficiency savings requirements, key additional factors identified include: having appropriate incentives for utilities to pursue energy efficiency (including both shareholder incentives and decoupling) and securing the commitment of top utility management; having high quality energy efficiency programs; and appropriately recognizing the cost of carbon emissions

- Other issues such as who administers the energy efficiency programs (utilities or state government or independent 3rd parties), or whether a state is "restructured", or particular demographics or climate, are not regarded as particularly important factors in whether or not a state can achieve high levels of energy efficiency achievements.

- To date, utility-sector energy efficiency savings achievements have been heavily dominated by savings in the "lighting" area, and there is a widely-acknowledged need to increase savings in other end-uses and program areas. The focus is on going deeper and broader when addressing end-use energy efficiency.

- There is no single 'magic bullet' strategy for achieving the aggressive new energy efficiency goals that are being established in a number of jurisdictions, but the industry has an extensive base of experience in leading states to draw upon to help meet this challenge.

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