Restructuring DSM: Moving Beyond the Utility Monopoly on DSM Resource Acquisition

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ABSTRACT

A number of states and regions are considering replacing or supplementing the monopoly, vertically-integrated utility as the principal provider of publicly-financed energy efficiency services. The motives for this change include new program objectives such as market transformation and privatization, and concerns about the abuse of market power by DSM providers in the future competitive market. Alternatives approaches in place or being considered include retention of DSM responsibilities by distribution utilities, creation of new entities (both public and non-profit), and the transfer of administrative responsibilities for DSM through a competitive bid to potentially unregulated private companies. This paper summarizes the alternative administrative approaches that are under consideration or have been adopted in different states in light of the multiple goals policy makers are trying to achieve including administrative efficiency, program effectiveness, regulatory divestiture, and political support. Particular attention is paid to the shift from utility provision of DSM services to an "independent administrator" in California.

Introduction

Over the past two decades, energy efficiency programs have generally been implemented in most states through a single, consistent model: regulated monopoly utilities administer, implement, and evaluate programs using utility staff or contractors while regulatory commissions provide oversight. Recently, the advent of electric industry restructuring and retail competition has led a number of states to question that approach and to begin to experiment with alternative approaches to the provision of energy efficiency services.

This experimentation is supported by a broad political consensus that there continues to be substantial value provided from public investment in energy efficiency in a restructured environment. It has also become clear that public benefit investments such as energy efficiency can be supported through the adoption of a nonbypassable charge on all consumers. (These charges are variously referred to as a Public Goods Charge (PGC), System Benefits Charge (SBC), or other similar labels) Many states have already adopted or are now in the process of adopting nonbypassable charges to support these public goods investments. (Three other investment areas are typically included in the public benefits charge: low income services, renewable resources, and public goods RD&D.) Finally, there is also growing support for the adoption of market transformation as the principal policy objective for energy efficiency investments.

This paper addresses the question that arises for a state that is restructuring its utility industry once it has resolved the issues of whether to continue public investment in energy efficiency and what the objective of that investment should be; namely, what is the administrative structure that can make best use of the available funds to achieve the specified policy objectives? In order to resolve this issue, states need to establish a management framework -- from oversight, through administration,

implementation, and evaluation -- and identify the entities that will carry out each of the tasks in the framework.

There is as yet no clearly preferable approach or set of options that can be universally recommended. Moreover, as of this writing, few (if any) states have fully identified and put in place a stable administrative structure. Some states are in the middle of this process; most are just beginning to consider their options. Because there is no resolution of this issue as yet, rather than offer a putative solution, this paper provides a summary of the experiences in a few selected states and a discussion of the principal issues and options.

Analytical Framework

A discussion of the issues addressed in this paper benefits from the use of a consistent and simple analytical framework. In particular, it is useful to distinguish among the four principal functions in the management chain: 1) oversight; 2) administration; 3) implementation; and 4) evaluation.

These functions can be generally defined as follows:

1) Oversight consists of providing broad policy guidance and dispute resolution and of ensuring consistency with public objectives. Oversight generally includes regulatory review of other management activities, financial and management audits, and consideration and resolution of broad policy issues. Because of the need for public accountability, the oversight function is generally (if not always) vested in a public agency.

2) Administration generally consists of program planning, design, and management, accounting and financial management, support for oversight activities, and coordination and oversight of implementation and evaluation activities.

3) Implementation generally consists of program- and project-specific activities including the installation of energy efficiency equipment and the delivery of energy efficiency services.

4) Evaluation generally consists of measurement, evaluation, and verification activities either delivered prospectively to support program planning and design, or retrospectively to provide feedback on specific programs, projects, or technologies.

In distinguishing among these functions, it is critical to note that there are no bright lines separating one from another, but instead there is a continuum of activities. As a result, it is relatively easy to broadly differentiate among the four, as is the intent here. However, the development of definitions that can provide functional distinctions among these activities for administrative or legal purposes is substantially more difficult.

Under the historical regulated utility model, oversight functions are provided by a regulatory commission, while utility staff or contractors provide administration, implementation, and evaluation services. In recent years, there have been some efforts to split out the implementation function, through the use of utility-specific bidding programs in which independent energy service companies compete for program funds and implementation responsibility, and collaborative regional and national

programs in which multiple utilities provide support for program implementation by an independent third party.

The advent of restructuring has led a number of states to reconsider the historical model and to explore alternative approaches. In general, these alternatives involve one of two types of changes. The first type of change builds on, expands, and formalizes the recent efforts to break out implementation and evaluation from administration and vest some or all of these activities in different entities, such as energy service companies, non-profit corporations, and other state agencies. The second type of change involves replacing the entity that is currently providing oversight or administration with either an alternate existing or a newly-formed entity. Oversight continues to be performed exclusively by public (generally state-level) agencies, but some states are considering shifting that function from one entity to another. More commonly there is widespread consideration of the use of non-utility entities to fulfill one or more of the other three functions.

The following section provides an overview of some of these initial efforts.

Summary of Activities in Selected States and Regions

California. Assembly Bill 1890 (AB1890), passed by the California legislature in August 1996 and signed into law by Governor Wilson shortly thereafter, set the state on the electric industry restructuring fast track. AB 1890 included creation of a nonbypassable charge to collect not less than $228 million per year for four years in funding for electric "cost-effective energy efficiency and conservation activities."[1] (AB1890) Regulatory authority over these funds was given to the California Public Utilities Commission (CPUC). AB1890 addressed on electric energy efficiency funding; there is additional funding of approximately $45 million for natural gas energy efficiency programs for which a nonbypassable charge is also contemplated.

The CPUC initiated a proceeding, solicited comments from parties, and in February 1997 issued a broad decision providing guidance on the administrative structure through which these funds would be spent. (CPUC 1997) In this decision, the PUC enunciated a principal goal for energy efficiency services – "to ... privatize the provision of cost-effective energy efficiency services" – and an administrative structure intended to facilitate achievement of that goal. There are two novel components to the administrative structure: 1.) an independent board composed of regulatory and public representatives and subject to PUC jurisdiction and oversight, and 2.) one or more independent administrators of energy efficiency programs, hired through an competitive bid process.

The independent board, now renamed the California Board for Energy Efficiency (CBEE), is composed of nine members. Seven members are appointed as public representatives and two members represent regulatory agencies. The principal duties of the CBEE include developing and overseeing the RFP and contracts for administration, and development of program rules, definitions, and guidelines. While providing substantial weight to its recommendations, the CBEE is advisory to the CPUC, which retains ultimate authority.

The CPUC did not choose to shift program administration responsibility from the utilities to an independent administrator because of inadequate performance by the utilities or an unwillingness by the utilities to continue in this role.[2] Instead the CPUC chose to make this transition primarily because

[1] The minimum funding level is reduced to $188 million in 2001. While AB1890 only addresses electric energy efficieny, the CPUC plans to institute a similar non bypassable *gas* surcharge to fund gas energy efficiency programs.

[2] These issues were perhaps first raised in (Eto, et. al. 1996)

it believed that the regulatory oversight necessary to support administration in a regulatory context was incompatible with the newly-adopted objective of privatization of energy efficiency services.[3] In essence, the CPUC principal objection was not with utility administration per se, but with the regulatory-based administrative framework. The CPUC's solution to this problem was to shift to a contract-based administrative framework under which administrators would provide services according to the terms of a competitively-awarded contract. Since there was no underlying objection to the utilities, the CPUC did not prohibit the utilities from being administrators, but instead required them to compete for that role through a competitive bidding process along with all other entities.

Over the past twelve months considerable progress has been made towards implementing the CPUC's vision. The CBEE has prepared and presented to the CPUC a Request for Proposals (RFP) for hiring the independent administrators, a set of revised policy rules and guidelines, and a bid process. (CBEE 1998) Incorporated in these recommendations is a recommended administrative structure that includes three administrators – one each for residential programs, nonresidential programs, and new construction programs. The CBEE has also recommended that the CPUC allow use of "analysis agents" that are independent of the administrators and that report directly to the CBEE to conduct market assessment, measurement, and verification activities.

New York. In May 1996, the New York Public Service Commission (NYPSC) determined that public purpose programs, including energy efficiency, may continue to be necessary in a restructured electric industry and that a systems benefits charge (SBC) was an appropriate means to fund such programs. (NYPSC 1996) The level of funding was established in the individual restructuring proceedings for each utility and would be maintained for a minimum of three years. (NYPSC – 1998)

Negotiated settlements for a number of the state's utilities included the transfer of responsibility for program administration to a third-party administrator. The NYPSC supported this shift and expressed an expectation that the other utilities would also elect to use a third-party administrator. The reasons offered in support of this shift were to: 1) increase effectiveness from statewide administration, 2) achieve economies of scale from reduction of duplicative tasks; and 3) ensure that the funds are administered in a competitively-neutral manner.

The NYPSC did not see a need to competitively bid the role of administration, and instead identified the New York Energy Research and Development Authority (NYSERDA) as the appropriate entity to serve as the third-party administrator. In support of this decision, the NYPSC noted that NYSERDA was "an established organization...experienced in delivering public benefit energy efficiency ... programs on a statewide basis." To implement this decision, the NYPSC directed utilities to enter into such contracts or agreements with NYSERDA as are necessary to fulfill its obligations. Finally, the NYPSC provided for a transition period over which funding would be transferred to NYSERDA to allow utilities to discharge existing program commitments.

Under the NYPSC plan, there would be competition in the area of program implementation, where "contracts for implementation of the majority of SBC programs can be carried out on the basis of competitive solicitations for which all qualified parties will be eligible to compete, including the utilities and their affiliates."

Finally, the NYPSC directed NYSERDA to "obtain the services of an independent program evaluator." This evaluator would provide input to an periodic written report to the NYPSC on

[3] The CPUC was also concerned with structural conflicts of interest for the utilities. However, they acknowledge that these conflicts can be addressed through regulatory mechanisms such as shareholder incentives. (CPUC 1997)

"program and market performance, and recommendations on [the level and continued need for SBC funding]."

Wisconsin. An "Enunciation of Policy and Principles" on Public Benefits programs released by the Public Service Commission of Wisconsin (PSCW) reaffirmed the state's commitment to the preservation of public benefits initiatives in the transition to a restructured electric and natural gas industry. (PSCW 1997) In this statement the PCSW also established market transformation as the primary goal of the Public Benefits effort and supported the use of a nonbypassable charge to collect the funding.

In considering the administrative structure for public benefits programs, the PSCW noted that "the basic fiduciary and oversight authority in the Public Benefits efforts should continue to lie with state agencies." (PSCW 1997) But the Commission argued that the oversight responsibility for the energy efficiency programs should be vested in a state agency other than the PSCW, such as the Department of Administration (DOA) or the Department of Commerce. The reason for this proposed shift is that these other agencies are more appropriate for the functions of policy development and program delivery than the PSC with its more limited role of regulatory oversight. While the Legislature has yet to make a final decision, it now seems likely that the oversight role will be vested in the DOA, an executive agency which includes the programs of the now-dismantled state energy office.

The PSCW also proposed that a separate entity be charged with the responsibility for administration of programs. The oversight agency would select and contract with the administrators who would in turn be responsible for either performing the work directly or subcontracting with implementers through competitive RFP processes. The state's utilities are not expected to be considered for the role of administrator, but will likely to able to bid to provide implementation services. A leading candidate for administrator is the Energy Center of Wisconsin, a non-profit organization with considerable experience in program management.

The PSCW's proposal includes the evaluation function as part of the responsibility of the program administrators. However, there continues to be strong support in the state for the creation of an independent evaluation agency.

Pacific Northwest (Idaho, Montana, Oregon, and Washington). With the author's apologies and full recognition that each of the four Northwest states are in fact members in full of the Union, the Pacific Northwest is addressed in this paper from a regional perspective because of the unique and interesting approach to energy efficiency program administration.

The electric industry of the four Northwest States have been closely intertwined since the 1930s as a result of the federal investment in and management of the region's hydropower resources. More recently, in 1980 the Northwest Power Act created the Northwest Power Planning Council, mandated least-cost regional energy planning, and put a priority on energy efficiency as a preferred resource.

This history of regional collaboration enabled the four Northwest states to create a new entity focused on market transformation programs. Formed in 1996, the Northwest Energy Efficiency Alliance (NEEA) has committed funding of $65 million over three years ('97 - '99). At present, NEEA is responsible for the subset of efficiency programs which are classified as market transformation. Through February 1998, NEEA has approved full funding for 28 projects addressing a wide range of sectors, markets, and technologies.

For NEEA's programs, the oversight function is provided by an 18-member board consisting of representatives of utilities (both public and private), public agencies, and public interest organizations.

The function of program administration is provided through NEEA's staff. Program implementation is provided almost entirely by independent energy service providers that are selected through an open RFP process. Program evaluation is provided by contractors under the management of NEEA staff.

Vermont. The general electric industry restructuring bill (S.62), in which Vermont's legislature is considering energy efficiency program administration, has passed the state Senate and is currently before the House. The current draft of the bill provides strong support for continued public investment in energy efficiency funded through a nonbypassable energy efficiency charge. The legislation assigns program oversight to the Vermont Department of Public Service (VDPS) and administration to an "efficiency utility." The VDPS will be responsible for selecting and certifying the efficiency utility, establishing efficiency resource goals, and provide general regulatory oversight of program delivery.

The efficiency utility is a "corporation" selected and certified by the VDPS through a competitive process for a term of no more than five years. The legislation allows for the possibility that one of the distribution utilities could act as the efficiency utility, although it is clear that programs are intended to be provided on a statewide basis. The efficiency utility would be responsible for both administration and implementation, although the use of competitive solicitations for specific program services is clearly allowed. No specific mention is made of program evaluation; presumably, evaluation will be a function of the efficiency utility.

Summary and Conclusions

As described in Section II, there are four functions that need to be performed in order to provide energy efficiency services; oversight, administration, implementation, and evaluation. In order to provide energy efficiency services each state must identify the institution or institutions that will fill each role. While in the abstract there is a nearly infinite set of possible organizational solutions that one could consider and recommend as ideal, in practice there is a limited set of issues and options that states are considering. The following section deals with these issues and options in turn for each option. Table 1 provides an overview of the administrative framework in each state.

Table 1: Overview of Administrative Framework by State

	Oversight	**Administration**	**Implementation**	**Evaluation**
California	CPUC w/ advisory board (CBEE)	Independent administrators selected through RFP	Competitive procurement; private service providers	Independent administrators and CBEE "analysis agents"
New York	NYPSC	NYSERDA	Competitive procurement; private service providers	Independent evaluator
Wisconsin	Department of Administration?	Energy Center of Wisconsin?	Competitive procurement;	Possible independent

			private service providers	evaluator
Pacific NW	18-member NEEA board	NEEA staff	Service providers selected through RFP process	NEEA contractors
Vermont	Vermont Dept. of Public Service	"Efficiency utility" selected by competitive process	Mix of "efficiency utility" and service providers	"Efficiency utility?"

Oversight. Oversight almost certainly needs to be provided by a public agency because of the need for public accountability. The principal question facing states is whether to continue with the existing oversight agency, to shift the responsibility to another existing agency, or to create a new entity. The bureaucratic inertia inherent in an established organizational structure will tend to lead states to stick with an existing agency, where possible. However, there are also a number of reasons why it might be preferable to shift oversight responsibility to a new agency.

Efficiency investments have been typically viewed as resource procurement activities of regulated utilities intended to offset the use of less desirable resources. In this context, oversight was seen naturally as the province of the regulatory agency charged generally with oversight of the investments of regulated utilities. However, efficiency investments in some states are becoming less closely linked to the regulated utility both because of the shift from resource procurement to the more expansive objective of market transformation and because of the reduced role of the regulated utility in resource portfolio management. These changes lessen the relevance of regulatory expertise and increase the value of oversight by an agency with broader and more targeted expertise in energy efficiency.

Similarly, a shift in responsibility for administration from regulated utilities either to a state agency or to a private entity under a contractual relationship reduces the relevance of the regulatory expertise that is critical when overseeing administration by regulated utilities. More specifically, if administration is to be the responsibility of a state agency, the oversight function should be integrated with the administrative function and vested in the same agency in order to increase administrative efficiency and avoid bureaucratic conflicts.

Transferring oversight responsibility to a new state agency carries a downside risk as well. Energy production and delivery and energy efficiency are essentially substitute goods. Any division of oversight responsibility for the energy industry across state agencies without close policy coordination will likely result in less effective programs.

In Wisconsin, the change in perception regarding the role of efficiency programs in a more competitive industry have led the PSC to recommend a transfer in oversight responsibility, most likely to the Dept. of Administration. In California, New York, and Vermont, and Maine the regulatory agencies have in the past exercised broad policy and programmatic oversight and therefore maintaining oversight responsibility with the existing agency seemed preferable. The Pacific Northwest states have become comfortable with the concept of regional collaboration so that the creation of a regional oversight body was feasible and a natural match with the broader market perspective of market transformation programs.

The right decision in other states will depend on the role of the oversight agency up to now and the size and objective of programs in a restructured industry relative to the past. Generally there will be a resistance to change due to bureaucratic and political obstacles. This will be amplified in states where the oversight agency has exercised broad and active authority and there is relatively little change in the scale of programs or their objectives. However, in states where there is a substantial change in the perceived role of programs and an appropriate alternate agency is available, then a transfer of the oversight responsibility may be both possible and beneficial.

Administration. As noted earlier, the role of administration has typically been the province of the regulated utilities.[4] However, the advent of restructuring requires that there is an effective separation between administration of efficiency investments and competitive markets so that societal efficiency investments are not used to provide a competitive advantage to a particular competitor. There are essentially three ways to achieve this separation. The first is to require financial and administrative separation within the regulated utility. Alternatively, one can take the administrative role away from the utility and vest it either in another private company or in a public agency.

The viability of effective separation within the utility will depend on how independent the distribution function is from any competitive generation function that remains with the utility; the greater the independence (complete divestiture of generation being the extreme), the easier it is to ensure that the administrative role is not being used to competitive advantage. In any case, if the administrative role continues to reside with the utility, the oversight agency will need to exercise careful regulatory oversight to avoid misuse of funds for competitive advantage.

Transfer of the administrative role to a private company other than the distribution utility does not eliminate the need to ensure that efficiency investments not be used to provide an unfair advantage in the competitive market for generation services. It could, in fact, be argued that use of a non-utility private company as administrator carries a higher potential for abuse, given the lack of regulatory oversight. Non-utility private administrators will need to be scrutinized to ensure they aren't biased toward any particular energy service – either generation or efficiency services – providers.

In addition, there are a host of other issues that arise when a government agency attempts to contract with a private company, other than a regulated utility, to provide the broad and relatively ambiguous service of efficiency program administration. How will the contract be structured? How will the administrator be compensated? How will the administrator be chosen? How will disputes be resolved? There is a well-established framework for addressing these issues in the regulatory context, but no such framework exists in a contractual context. California and Vermont are both moving toward hiring an administrator on a contractual basis, but neither has completed the process.

The third option, transfer of the administrative role to a public agency, avoids the two principal issues associated with the first two options, i.e. the potential for creating a bias in a competitive generation services market and the difficulty of creating a effective contractual mechanism for program administration. However, this option raises new concerns. Many public agencies are hampered by cumbersome bureaucracies that would reduce their ability to field an effective program. And the current political climate may not permit this expanded government activity, in any case.

In general transfer of administration to a public agency is a more viable option if an appropriate agency exists and the transfer of this function is politically feasible. An appropriate agency would

[4] This discussion builds on issues first raised in (Eto et.al. 1996).

have relevant experience, capabilities, staff and typically be large enough to take on this new function without being overwhelmed.

It would, of course, be possible to create an entirely new agency for this purpose of administering efficiency programs. Creation of a new agency is a promising approach, because it could be designed to fulfill this specific purpose. However, creation of a new public agency usually faces political obstacles and will require substantially more time to get up and running. On the other hand, the Northwest states were able to get NEEA functioning quickly because of the history of regional collaboration and the relatively limited scope of programs covered.

States are experimenting with a variety of approaches for filling the role of administrator. The oversight agencies in the three states discussed above have all chosen to shift administration away from regulated utilities. In California the justification provided was the incongruence between a regulatory oversight framework and the objective of privatization of energy efficiency services. In New York, regulators cited the benefits of statewide programs and economies of scale from reduction of duplicative tasks. In both New York and California, regulators cited concerns that public program funds might be used to private advantage in a competitive market. In Wisconsin, there was general consensus on the value of a statewide administrator; the principal motivation may well have been the lack of interest on the part of the utilities.

None of these states has yet made the transition to an independent administrator. In New York, the transition should be facilitated by the decision to designate an existing agency with relevant experience and capabilities as the new administrator. Wisconsin appears likely to adopt a similar approach. California and Vermont have instead chosen to select and contract for a new administrator through a competitive bid process. In California this process has already required a substantial effort, has encountered a number of serious obstacles, and is still far from complete. Vermont's approach has yet to pass the scrutiny of the full legislature. Whether this approach will ultimately prove successful and worth the effort may not be evident for some time to come.

Implementation. Consistent with the move to competition in the industry generally, there seems to be a broad consensus that a much greater share of implementation activities should be provided by private energy service providers (e.g. energy service companies, or ESCOs). This approach carries a number of benefits. It promotes the development of the energy services market by supporting the development of service providers. A vibrant energy services market can facilitate further efficiency efforts. Separation of administration from implementation also reduces the scope of the activities provided by the administrator. This reduces the ability of the administrator to link efficiency services to purchase of generation services from itself or an affiliate.

The possibility of creating bias in a retail energy services market from the use of private companies to provide implementation services, as opposed to administration services, is greatly reduced by the much more limited scope of the activity. This possibility can be further reduced by the use of open, competitive processes (e.g. RFPs, standard performance contracts, etc.) to select implementers.

The principal issue that states face in arranging for the provision of implementation services is determining which implementation services should be provided by the administrator and which should be farmed out to implementers. The California PUC has adopted the most aggressive position in this area, wherein essentially all implementation activities would be off limits to administrators, with only a

limited set of implementation activities possible, and then only with specific permission.[5] The current draft of Vermont's legislation takes what is probably the least aggressive position, assigning implementation responsibility to the administrator, and allowing – but not requiring – use of competitive solicitations.

Evaluation. The evaluation function encompasses a wide range of activities from measurement of the performance of technologies in particular installations to evaluation of the effectiveness of overall administrative framework. All parts of the efficiency services structure should be expected to evaluate, measure, and/or verify the activities and entities for which they are responsible. These activities and lines of responsibility should be clearly delineated.

The principal question facing states is whether there is value in also creating an independent evaluation entity or whether evaluation can be accommodated without this additional entity. The principal argument in support of an separate evaluation entity is the value of a broad and unbiased perspective on the effectiveness of program activities. The independent entitity can conduct broad evaluations – across projects, implementers, and even administrators – to provide useful comparative data. Unlike the other entities in the administrative framework, an independent evaluation entitiy can offer an unbiased perspective on performance.

These benefits are counterbalanced by the increase in administrative complexity and overhead implicit in the addition of an additional entity to what may already be a relatively complicated administrative structure. Addition of an independent evaluation entity will raise issues of management responsibility, oversight, and funding allocation that will need to be addressed. In sum, States should consider carefully whether the benefits of an independent evaluation capability outweigh the burdens. To date, only Wisconsin and New York seem likely to create an independent evaluation entity. The other states have instead vested the general evaluation responsibility in the administrator.

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[5] A much more detailed discussion of this approach is contained in another paper in this panel (Prahl, et. al. 1998).

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