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Who Should Deliver Ratepayer-Funded Energy Efficiency? A 2011 Update

Based on work for the Colorado Public Utilities Commission, updating a 2003 report by RAP

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November 2011

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Purpose of this Update

Over the eight years since the Regulatory Assistance Project published Who Should Deliver Ratepayer Funded Energy Efficiency?, the U.S. has realized a greater than threefold increase in energy efficiency deployment. The U.S. power sector has seen a sleepy natural gas price awaken with volatile shocks and then resettle. Older generators are eight years older, perhaps closer to retirement or critical reinvestment decisions for life-extension and/or pollution control. The costs of new generation are coming into focus and that picture appears a bit scary. Preparations for carbon regulation are underway despite the lack of a clear national direction.

There are also eight more years of experience with energy efficiency program delivery and administration in those states where energy efficiency was already underway in 2003, and several states with new experiences to share. Several states continue to struggle to strike the right balances with state and utility roles in the effort to get good value for utility consumer dollars while promoting stable regulation and markets for efficiency service.

The Colorado Public Utilities Commission asked RAP to prepare this update of our 2003 report to address pressing questions. Keith Hay provided insights about Colorado stakeholder attitudes based on interviews he conducted, which we appreciate. In addition to support from the commission, funding assistance is provided from American Recovery and Reinvestment Act funds through the National Association of Regulatory Utility Commissioners. RAP expects this update will provide insight to many who are responsible to assure that energy efficiency program administration is appropriate for the place and time. Subsequent to a version of this report being delivered to the Colorado Public Utilities Commission and prior to its publishing, a subgroup from the Utility Motivation Working Group of the State Energy Efficiency Action Network agreed to review the paper and offer further suggestions. RAP appreciates the contributions from Susan Stratton, Anne-Marie Peracchio, Jennifer Easler, and Scott Johnstone, which further strengthened this report.

This report will reassess the most important factors for states to consider and will review performance to learn what lessons experience offers. The report offers guidance to state legislators and utility regulators as they consider ways for administration and delivery of energy efficiency to be more effective, especially as some states engage this question for the first time, and experienced states implement significant increases in savings goals.

The author appreciates the support from RAP's research office in preparing this report, notably Brenda Hausauer and the original work done for the 2003 report by Cheryl Harrington and Cathie Murray.

Introduction

This paper examines policy options and approaches for the administration and implementation of ratepayer-funded electric utility energy efficiency programs. Although use of the term "ratepayer" is fading in favor of the terms "customer" or "consumer," the term is aptly used here. Energy consumers do pay for energy efficiency products and services with their own funds. This paper focuses on the products and services organized through the pooling of utility ratepayer funds, so our title is meant to convey this regulated activity.

The administrative structures used in the states fall broadly into four categories:

- Independent, non-government statewide organization
- Utility administration (ownership by investors, cooperatives, the public)
- Government administration at both state and local level
- Hybrid – responsibility divided between or among multiple administrators

RAP applied the results of its routine research on energy efficiency practices nationwide; this research is available on the RAP website.[1]

RAP's earlier version of this report assessed nine substantive areas:

1) Process and length of time to establish administrative body
2) Details of organizational structure (budget, staff, customer, or geographic segmentation)
3) Funding means for administration and for programs
4) Degree of association with a long-run resource plan
5) Guidelines for program effectiveness
6) Pre-implementation program evaluation guidance
7) Results of program evaluation
8) Significance of financial incentives, revenue decoupling, or other performance-based incentives
9) The degree of apparent success and sustainability of each administrative approach

The primary assessment here is Query 9, above, the degree of apparent success and sustainability of each administrative approach. This update provides a comparative discussion of each of the four major approaches drawing upon state experience and relative success in achieving the stated goals of each.

The hybrid approach is new in this report update. It represents the fact that states, fulfilling their role as laboratories, are developing structures that work for them, and in distinct instances are not content with the obvious alternatives. Somewhat out of view of the regulated utility sector, municipals and cooperatives are also exploring new ways to work together.

More states are directing natural gas utilities to do energy efficiency at present than eight years ago. In general, the pros and cons about the different administrative structures apply for natural gas in the same way as they apply for electricity. This means that state policymakers or decision-makers can consider energy efficiency administration for natural gas in the same manner as for electricity, and can arrive at a conclusion to administer both in the same manner, or in different ways depending on local conditions and priorities. Similar approaches for both energy sources may allow for easier program implementation under emerging "whole house" and "whole building" approaches to energy efficiency.

A word about scope: as the practice of consumer-funded energy efficiency matures, it prompts more intricate questions. How can these ratepayer-funded energy efficiency programs support and connect with mandatory policies,

1 Regulatory Assistance Project, 2009

like building energy codes and appliance and equipment efficiency standards? How can overall building and system efficiency across all energy forms, regulated and unregulated, and all natural resources, like water, be better accomplished? Who should organize these services in ways that make sense for owners and decision-makers in buildings? These questions suggest more of a beginning of a conversation about delivering "resource efficiency" than a conclusion to the subject of delivering energy efficiency. These questions will no doubt be the subject of a future work.

Comparative Discussion

Successful deployment of cost-effective energy efficiency requires three fundamental cornerstones, regardless of administrative structure:

Clarity of stated purpose at every level (from overarching goals to individual program design and evaluation metrics). Clarity begins with the policy reasons for pursuing energy efficiency found in underlying enabling legislation and PUC orders. The PUC needs to know when to step in forcefully and when to step aside. Once an administrative structure has been designed and put in place, it needs some time to prove its operative abilities.

Consistency of policy over time[2] Energy efficiency programs take time to implement, and savings are realized over time. Frequent changes in goals, program design, or commitment to purpose do great harm to achieving efficiency results. Additionally, frequent changes may impair potential growth for the industries serving the market. Furthermore, efficiency policy requires ongoing political support and regular supportive public pronouncements from policy makers.

Consensus of key stakeholders as to goals and structure, as well as program design, measurement metrics, and performance based regulation. At a minimum, key stakeholders include the utilities and the regulators. Ideally, it includes all major interveners, customer classes, trade allies, and environmental and low-income stakeholders. The broader the consensus, the more successful programs and energy savings results will be.

Leadership and commitment from political authorities and public acceptance are important to maintaining this foundation.

The restructuring question gave states an opening to reconsider whether utilities lacked sufficient commitment to the success of energy efficiency to be entrusted with administration and to consider new models. On the other hand, the ubiquity of the utility remains a strong rationale to maintain utility administration.

Background

Ratepayer-funded energy efficiency programs evolved in the 1980s primarily as utility demand-side resource investments. Efficiency investments were required when they lowered costs as compared to utility supply-side resources (most often generation, but occasionally transmission and distribution as well). Because efficiency programs were seen as integral pieces of a utility's overall resource portfolio, it was universal regulatory practice to rely upon utility administration of demand-side interventions. Utilities designed and implemented energy efficiency programs for their customers, with whom they had an exclusive relationship when it came to providing electricity services. Regulators set policy parameters for efficiency investments by designating how cost-effectiveness will be measured, approving budgets, verifying results, and in many jurisdictions, by providing regulatory incentives designed to align utility financial motives with ratepayer interest in achieving cost-effective efficiency investment (thus avoiding more expensive supply-side alternatives). Industry restructuring came along, throwing into question the premises that utilities needed to be or should be vertically integrated or that they should be further involved in energy efficiency markets.

2 Consistency of policy does not necessarily mean consistency of administrative structure. Administration can be and has changed in several successful programs. It is clear enough, however, that major structural changes can be chaotic, causing delay, loss of infrastructure, and weak program results. Only those jurisdictions that maintained the highest levels of clarity, consistency, and consensus among key stakeholders while implementing major renovations in administration were able to achieve an ongoing high level of program results without dropping the ball.

The restructuring question gave states an opening to reconsider whether utilities lacked sufficient commitment to the success of energy efficiency to be entrusted with administration and to consider new models. On the other hand, the ubiquity of the utility remains a strong rationale to maintain utility administration.

The restructuring debate and the uncertainty it engendered for utilities and for regulators cast a deep chill on demand-side investments in many states. Nationally, investment in ratepayer-funded energy efficiency, not including load management expenditures, declined precipitously from $1.6 billion in 1993 to $900 million in 1997.[3] Efficiency funding in some jurisdictions suffered, sometimes as a matter of free market philosophy, sometimes through ordinary neglect due to finite regulatory attention. In intervening years, efficiency funding has increased and is exceeding earlier nominal spending levels, and leading states are matching proportionate spending for energy efficiency as a percentage of total revenue.[4]

Some states maintained ratepayer funding for energy efficiency through the creation of a non-bypassable surcharge instead of embedding the cost in rates. Efficiency program development was no longer economically integrated into a comprehensive resource portfolio as such in many states.

Several states (many of which considered the retail competition model) looked for entities other than utilities to administer efficiency programs. Some assigned the duties within state government as part of industry restructuring. Other states decided to let the energy efficiency duties remain with the distribution companies. The Oregon PUC created a non-profit entity to contract with for efficiency programs. Vermont decided to have its Public Service Board contract with a private entity as a regulated *energy efficiency utility,* dedicated exclusively to providing statewide energy efficiency services for electricity, believing it to be a superior model whether or not restructuring occurred. Meanwhile, its gas utility remains tasked with delivering energy efficiency for its customers.

Energy Efficiency Goals

States declare a variety of goals for the ratepayer-funded energy efficiency resource. The two most common goals remain (1) energy resource acquisition (peak and energy reduction) and (2) market transformation. These complementary goals tend to result in different kinds of efficiency program designs and different approaches to measurement of results. They also require slightly different mindsets of program administration. A priority on measured net savings will probably lead to programs slanted to resource acquisition, whereas an "all cost-effective" standard leaves room for market transformation. Both goals can be accomplished with sufficient funds to support acquisition of all cost-effective energy efficiency. When budgets are limited, priorities and choices balancing public goals are necessary. Additional goals addressing environmental quality and economic vitality are emerging and tend to add to program value if program screening is allowed to count it.

Energy Resource Acquisition

The goal of *energy resource* acquisition was the original goal of most ratepayer-funded programs. Using this goal signifies a philosophy that energy efficiency is a resource much like any other electrical energy supply-side resource, only it happens to reside in the hands of the customers.[5] It is a unique resource with cost savings benefits for the system as a whole but which can only be obtained by actions that reduce the demand of the customer. Efficiency programs designed to meet an energy resource goal are directed to finding and releasing the cost-effective efficiency held by customers while holding the customers' amenity level (e.g., amount of light, heat, power drive) to the same or in some cases even higher levels than existed before the implementation of the efficiency measure or process.

The resource planning horizon in which energy efficiency is evaluated matters. Considering ratepayer-funded efficiency as an immediate energy resource places emphasis on approaches that can achieve the efficiency in a relatively short period of time and in which the savings

3 York, 2002

4 Molina, 2010

5 This idea also can be applied to demand response and distributed generation on customer premises.

can be measured with some precision over the life of the efficiency measure. Programs that fund the incremental costs of building a home or commercial building to efficiency standards that greatly exceed existing building codes or that pay to change out light bulbs or to upgrade heating and air conditioning systems are examples of common energy resource programs.

Using efficiency as a resource is often coupled with a secondary goal of equitable distribution of opportunity to participate in programs. Otherwise, the efficiency investment would be more narrowly targeted to only the most cost-effective opportunities, which may be held in the hands of very few customers, such as efficient process changes for large industrial customers.

A long planning horizon allows the cumulative effects of energy efficiency to make a difference in capital asset investments (if system planning considers energy efficiency as a resource), and practices that target energy efficiency specifically to delay or to avoid capital spending can be a very economical strategy.[6]

Market Transformation

The other common broad goal of ratepayer-funded efficiency is *market transformation.* This goal is based upon the understanding that a great deal of cost-effective efficiency does not occur because of certain well known barriers in the markets for efficiency goods and services. These barriers, which have been well described, include (1) high customer discount rates, in which the customer demands a very short payback for what is essentially a capital resource; (2) split incentives such as that between landlord and tenant in which a tenant who pays the energy bills might see savings from an efficiency program but the landlord who would need to make the capital improvement would not realize any savings; (3) lack of awareness and information, including among engineers, architects, customers, the buyers of equipment and services, and equipment distributors; and (4) high upfront costs that prevent customers from making efficient purchases; such customers may understand there are savings to be had over time, but nevertheless don't have the cash to retrofit a household with expensive LED lights or to purchase a $1,000 front-loading efficient washing machine.

Market transformation programs seek to understand what the barrier is for a specific device, appliance, process, or measure and to use funds to permanently alter or remove the barrier so that a particular market will function on its own in the future with no further investment of ratepayer funds. An example might be a program designed to encourage distributors of water heaters to have highly efficient models on hand and to promote their sales when customers call (almost always in an emergency mode) for replacement. Another example would be working with the homebuilding community to educate all homebuilders on cost-effective materials and techniques for building highly efficient homes that exceed model energy codes with the goal of having the industry adopt and use the efficiency techniques as an ordinary commercial practice.

Market transformation programs seek to change behavior over an entire sector. It takes time, and the energy savings results rarely occur quickly. In fact, it can be difficult to measure results with the precision of energy resource programs, but when effective, the efficiency device/process becomes the market standard and savings are broadly realized on a permanent basis. For this reason, market transformation programs can become a low priority in the presence of energy efficiency savings targets of the type that apply to utility administrators and motivate the regulated entity to focus management attention and program skill on hitting the target.

Other Goals

Other common ratepayer-funded efficiency goals are *environmental improvement* and *economic development.* Environmental goals arise from the fact that not all environmental harm (societal costs) resulting from the production of electricity is captured in the price of electricity. Thus, efficiency expenditures are made to reduce the environmental harm, such as efficiency programs targeted to reduce use, thereby improving air quality. Increasingly, risks of environmental harm are monetized and can be included in avoided costs and in sensitivity analyses, either by the cost to mitigate the effects of existing and future regulation through pollution control equipment and other means, or through pollution allowance markets for SO_2, NOx, and CO_2. Economic development goals may

6 Gazze, 2010

target funds to geographic areas or sectors of the economy that are in need of an economic stimulus. Targeting industrial manufacturing process improvements to critical industries or older manufacturing sites, or building system improvements in brownfield developments might be examples of this kind of efficiency program. This sort of comprehensive process improvement program is usually highly customized to an individual business. Process improvements often capture not only the economic benefit of lowering the cost of doing business (perhaps saving jobs), but often bring environmental benefits as well by reducing air or water pollution or other waste outputs. The labor-intensive nature of energy efficiency also provides a local economic stimulus. Generally, energy efficiency can be thought of as a strategic option to meeting environmental and economic goals.[7]

Collaborative Efforts

The collaborative efforts of multiple parties in a number of states have been a significant factor in designing administrative structures as well as in designing effective efficiency programs.[8] A formally organized collaborative, mandated by statute as in Massachusetts and Connecticut or by the commission's own initiative, as with the energy efficiency oversight boards in Indiana, can be a logical outgrowth from the general commitment to the idea of consensus. Having multiple parties, each with a stake in the success of efficiency programs, reaching agreement about how programs should be administered strengthens the effectiveness of the administering institution regardless of which administrative structure is used.

Multi-party collaboratives have included efficiency providers, distributors, and contractors of efficiency products and services as well as ratepayers, environmentalists, utilities, low-income and large user representatives, state agencies, and regulators. Collaboratives can be statewide or utility-specific. Reaching a unified vision can be tough work, but reaching consensus can add significant stability to the efficiency institution and to its programs.

For non-utility stakeholders, a statewide collaborative offers the opportunity to focus on a single venue and to promote consistency among utilities. Utility administrators sometimes disfavor a statewide collaborative because it can divert focus to low priority topics of more interest to other utilities. Commissions are generally faced with the choice of what sort of collaborative process is most appropriate in a given state. States that decide on a statewide collaborative tend to value consistency, creating a forum in which everyone learns from everyone, and that helps advocates (and the commission itself if it chooses to participate) manage their limited time efficiently. States that choose utility-specific collaboratives acknowledge the differences among utilities and the utility's interest in managing a process that is 100% about the priorities associated with their programs and serving their customer base. Key considerations may also include the number of utilities within a state, the size of various utilities, and the variation in customer demographics between service territories.

States that eschew collaboratives rely on commission dockets, typically rate cases and integrated resource plan reviews, to resolve these issues. Litigation can constrain communication and innovation and promote conflict, but it avoids the creation of a new forum.

Energy Efficiency Funds and Administrative Structures

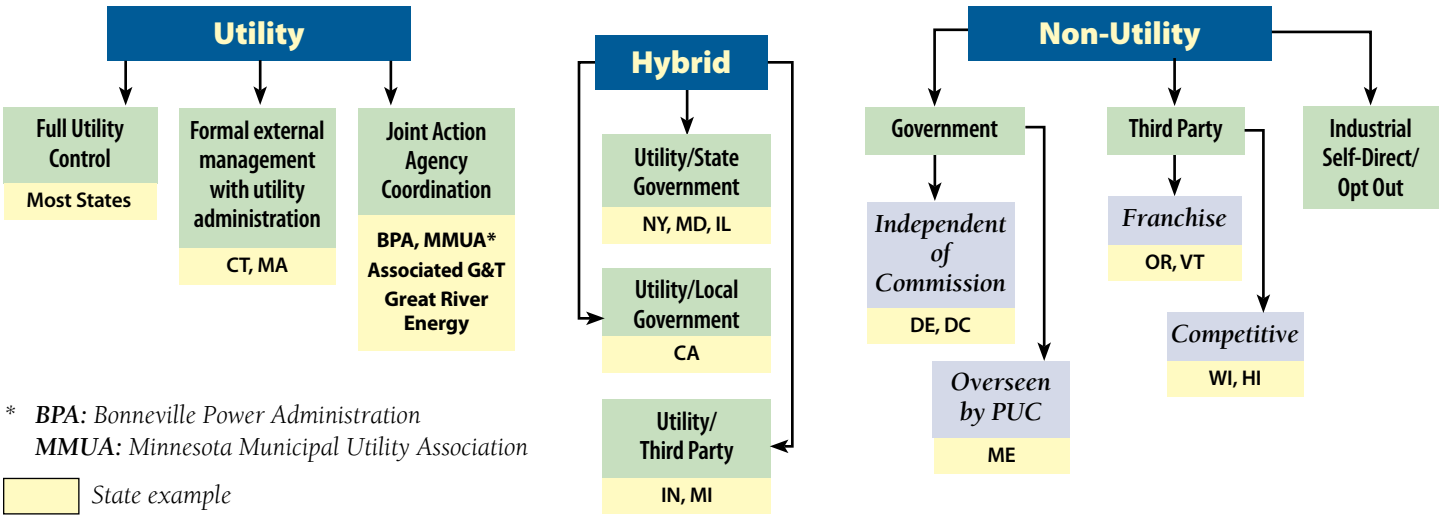
Many states use a separate charge, placed on per kWh sales to fund energy efficiency, and some also implement a surcharge on natural gas therm sales to fund additional energy efficiency programming. This is instead of embedding the cost of efficiency in utility rates like most other costs of utility service. These charges were widely implemented during industry restructuring as a means of preserving a minimum level of funding for energy efficiency and other "public goods." The funds are generally placed in

7 New energy efficiency goals may emerge. For example, energy efficiency could be targeted to promote reliability by RTOs and control area operators in updated system planning practices. See Federal Energy Regulatory Commission, 2010.

8 California also had a successful experience with a multi-party energy efficiency collaborative in 1989-90. See Raab, 1995.

Types of Energy Efficiency Administrative Structures

With State Examples



Note: This figure refers to types of administrative structures for consumer-funded energy efficiency programs. State examples refer to the primary administrative structure existing in each state.

the custody of the efficiency program administrator – the utility, the independent administrator, or the government administrator. So if a non-utility is the administrator, some way to collect and convey funds from consumers through the utility is needed. In general, the separate charge has proven to be an effective device for accomplishing the declared purposes, but the charge can be an irritant to consumers, and these funds are vulnerable.

In the current era in which almost all state governments are facing large budget deficits (this condition seems to recur with some regularity), any dedicated fund, including the energy efficiency account, faces serious threat of being raided to fill gaps in the state budget. The reassignment of energy efficiency funds to general state budgetary purposes is most clearly a problem where the funds are held in a state account. For example, a portion of efficiency funds in Maine, New Jersey, and Wisconsin were appropriated to government over the last decade.

One might think these "raids" are less likely to occur where dedicated energy efficiency funds are directly paid by the utility to its own program contractors or to a third-party independent non-governmental administrator, but two large raids occurred in Connecticut.

There are no raid-proof funds. Presumably, where efficiency costs are incurred as part of a utility's ordinary cost of doing business and are not segregated into identifiable funds, as with the traditional practice of integrated resource planning, there will be no state budget intrusion. Statutes can at least clarify this intent and minimize the chances of future raids, as in Vermont:

> *…. Balances in the fund shall be ratepayer funds, shall be used to support the activities authorized in this subdivision, and shall be carried forward and remain in the fund at the end of each fiscal year. These monies shall not be available to meet the general obligations of the state….*[9]

9 Vermont Statutes Annotated, Title 30, Section 209 (d)

Evaluating Administrative Structures

A useful set of criteria for comparing administrative structures for ratepayer-funded energy efficiency programs was suggested in a 1998 study and applied in the RAP 2003 report:

- Compatibility with Broader Public Policy Goals
- Accountability and Oversight
- Administrative Effectiveness
- Transition Issues[10]

We use these four broad criteria to organize our comparative discussion of the administrative structures in the surveyed states, adding the following sub-criteria, which we believe provide deeper context for thinking about good outcomes from efficiency program administration:

Compatibility with Policy Goals
- Harmony of financial interests
- Integrated resource portfolio
- Resource acquisition
- Strategic deployment
- Environmental improvement
- Economic development
- Energy efficiency market transformation
- Sustainability of effort over time
  - Funding stability
  - Institutional stability

Accountability and Oversight
- How is the budget set?
- Who participates in program development (opportunity for public participation)?
- Are measurement and evaluation metrics an integral part of program design?
  - Program evaluation?
  - Process evaluation?
- How are results verified?
- Frequency of reporting
- Protocols and capabilities for periodic program review
- Can the effort be successfully managed and overseen at large scale?

Administrative Effectiveness
- Efficient, non-redundant administrative costs
- Budget competency
- Ability to acquire and retain high quality staff, experts, and contractors
- Flexibility to adapt programs to evolving market conditions/opportunities
- Ability to target funds geographically
- Local options for program design
- Ability to facilitate timely payment of incentives to customers and trade allies

Transition Issues
- Start-up costs of new organization covered
- Smooth transfer of program responsibility
- Preserving structure and potential transfer of data to facilitate subsequent program evaluations

The following sections of this report describe and compare energy efficiency programs administered by independent entities, by utilities, by the government, and by a hybrid of administrators. The figure shown on the previous page illustrates the various types of administrative structures, with examples of states with each type of structure.

10 Eto, 1998

Independent Administration

The states discussed in this section have decided to use an independent, non-governmental structure to administer ratepayer-funded energy efficiency programs. Oregon and Vermont are long-standing examples of independent administration.[11] Other instances include:

- Wisconsin transitioned primary responsibility for its utility-run efficiency programs to an independent administrator in 2001. The oversight agency for the utility-run programs was the utility commission, whereas the oversight agency was switched to the State Energy Office with the switch to an independent administrator. The *Focus on Energy* Administrator oversight was switched back to the utility commission in 2007. Administration is divided into four segments with three organizations initially delivering them. During a business segment rebid, one of the existing administrators took on a third sector. Wisconsin Energy Conservation Corporation managed the Residential, Business, and Renewable sectors and the Energy Center of Wisconsin managed a research grant sector. In 2011, after 10 years of the third-party administration model, all administration was consolidated in a competitive rebid to a single firm. Shaw Environmental and Infrastructure Group won the right to manage all sectors of the program. Shaw reports to the commission. A transition is underway, with new sub-contractors being selected consistent with the objectives in the Shaw contract, as this report is being prepared.

- *Hawaii Energy* was created by state regulators to administer energy efficiency programs to most utilities in the state. SAIC/RW Beck won a competitive bid to operate Hawaii Energy beginning in 2009.

- The Michigan Public Service Commission requires utilities to deploy energy efficiency but also allows utilities to opt into a commission-selected third-party administrator, called *Efficiency United.* The commission prescribed that Efficiency United would be a non-profit and would be competitively selected. The commission selected the Michigan Community Action Agency Association, which is also tasked with delivering all low-income energy efficiency programs for investor-owned gas and electric utilities. Efficiency United was launched in late 2009.

- Indiana is in the process of creating a third-party administrator for designated statewide energy efficiency core programs under the direction of the Indiana Demand Side Management Coordination Committee, with ultimate oversight by the commission. The decision to create this system was the commission's. Utilities in Indiana are responsible for meeting energy efficiency targets and will use a combination of efforts from the third-party administrator and custom programs they run to meet these targets.[12]

- A recent New Mexico law authorizes its commission to order third-party administration, and no action has ensued.

11 New York is also commonly thought of as using an independent administrator. New York State Energy Research and Development Authority (NYSERDA) is a quasi-government entity – a state-chartered corporation with a Board of Directors appointed by the Governor. We grouped NYSERDA with government administration, although it shares features with independently administered programs. Here, NY is included in the hybrid administration section, because utilities now also have significant program administration responsibilities.

Oregon and Vermont came into the restructuring era with unusually strong energy efficiency records. Both states had clear regulatory policies requiring the investment in energy efficiency and both had well designed incentive regulation for energy efficiency (revenue decoupling in Oregon and lost revenue recovery in Vermont, in addition to program incentives). Eventually both states decided that despite consistent support from regulators, reasonable financial incentives to utilities, and a supportive public policy context, utility corporate culture and concerns about competition placed inescapable dampers on energy efficiency efforts. Both states decided to create an independent efficiency entity to administer the ratepayer-funded programs in most of the state whose sole business would be energy efficiency. These entities are *Energy Trust of Oregon* and *Efficiency Vermont.* Eliminating the utilities' mixed financial motives when faced with energy efficiency requirements was important in each of these two states. Websites of several administrators appear in Appendix 2.

Compatibility with Broader Public Policy Goals

The distinct strength of the independent administration model is the ability to focus its mission statewide, consistent with statewide energy goals, while eliminating conflicting business objectives that burden utility administration, therefore achieving a high degree of compatibility with broader public policy goals.

What is the conflict that burdens administration? Utility rates assume a level of sales, and rates are set to collect revenue to cover approved fixed costs. Because unsold kilowatt-hours/therms do not generate utility revenue, utilities suffer a loss of revenues against fixed costs that remain, at least in the short run, when energy efficiency programs are more successful than the sales forecast embedded in rates. This relationship is called the *throughput incentive* and presents a dilemma requiring some effective regulatory means of restoring revenue to cover previously approved fixed costs. Further, investor owned utilities' net income is proportionate to the size of its capital account, or rate base. If sales growth adds to earnings and energy efficiency interferes with this relationship, it is easy to see a potential for conflict.

How to create the right regulatory incentives to get over the lost revenue hurdle is a well briefed topic, but achieving effective implementation of incentive regulation requires careful and ongoing attention. Parties can get lost in endless bickering over whether incentives are too generous or too sparse. Nor is it always a question of lost revenues and program incentives. Utilities may have management cultures that reward those who provide supply-side solutions, not those who excel at energy efficiency implementation. Both the financial and the cultural conflicts can be markedly worse under a regime of retail competition.

Assigning energy efficiency obligations to an independent administrator avoids these vexatious conflicts. Interviews with policymakers in Vermont, Oregon, and Hawaii confirm the avoidance of financial and cultural conflicts as a major reason for creating their respective independent administration approaches, even though none of these states has opted to create full retail competition.

Structures that address throughput incentives were phased out in both Oregon and Vermont following the creation of the independent administrator. Utility decoupling was introduced in both states later, however, and is part of the third-party administration concept in Hawaii. Because successful efficiency programs threaten utility revenues, regardless of what entity implements the programs, utilities may be expected to resist program expansion over time unless disincentives are removed. Most utilities of any size have an active "life politic" as part of their ordinary business existence. Utilities with their revenues at risk from efficiency programs may react by engaging in aggressive advertising programs encouraging greater consumption or may make forays into the regulatory and legislative processes to reduce or limit efficiency funding. Stated more positively, utilities are important in the community and have a permanent connection to their customers, so they can be important supporters of energy efficiency delivered by a third party.

12 In 2011, GoodCents was chosen as the Indiana third party administrator for energy efficiency; see Indiana Utility Regulatory Commission, 2011 12NAPEE Leadership Group, 2006

13 NAPEE Leadership Group, 2006

Attention to utility incentives may be useful to ensure or support desired results.

Vermont law enabled a franchise for a regulated energy efficiency utility (EEU), a model with strong conceptual parallels to the state franchise of public utilities in general.[14] The Vermont Public Service Board, in turn, created a detailed scheme for competitively selecting the energy efficiency utility and for overseeing and evaluating its performance. Vermont Energy Investment Corporation was selected from several bidders and commenced operating the EEU (Efficiency Vermont) in 2000, and was selected in a rebid six years later.[15] It took Vermont less than three years to move from utility implementation of energy efficiency to full operation of the energy efficiency utility. With the EEU firmly in place, by statute, the state's electric utilities remain responsible for energy efficiency. The regulator has ruled that the utilities' energy efficiency responsibility is satisfied by the EEU, but this could be reversed at a future time. This technical reading of the statute is important when asking the utilities to support the efforts of the EEU, because through the utilities' support, they are still addressing a statutory requirement that applies to them.

After more than a decade of favorable experience, Vermont is now committing more completely to the third-party administrator. Regulators are supervising a transition to what might be termed a cable television franchise model, a long-term (11-year) franchise, which is reviewed at the end and which does not require a rebid. In its order of appointment, the Vermont Public Service Board appointed the incumbent operator of the EEU, Vermont Energy Investment Corporation, to operate the Efficiency Vermont franchise.[16] This change will promote a longer term focus, promoting longer term planning between the EEU and the many customers and markets in the state.

Oregon law gave the Public Utilities Commission discretion to order independent administration. After study, the PUC decided to create and use an independent non-profit trust, Energy Trust of Oregon, Inc. (ETO) for the purpose of delivering Oregon's energy efficiency programs. Oregon law initially provided the ETO with a 10-year funding mechanism, through 2012, and this was reflected in its contract with the Oregon PUC. In 2007, this funding mechanism was extended to 2026.

Both Oregon and Vermont have created single entities with statewide jurisdiction, eliminating redundant administrative and program expense, although participation by smaller utilities in Oregon is voluntary. Both states use the societal test (Oregon also uses the program administrator test) and evaluate both programs and the entire portfolio. Both states encourage multi-fuel savings and environmental protection and both conceive of efficiency as a resource and seek the transformation of efficiency markets. Vermont's system excludes natural gas, however, because the one gas company has effective programs and covers only two of the state's 14 counties. The Energy Trust of Oregon covers natural gas, but not unregulated fuels. In 2009, a change in OR statute allowed the large electric utilities to collect funds to do supplemental energy efficiency programs. Recent developments in Vermont with carbon allowance revenues and revenues from selling energy efficiency capacity value into ISO-NE now enable the energy efficiency utility to support energy efficiency in end uses using fuel oil and other unregulated fuels – emphasis on payback to utility

Oregon Contract Guidelines

- Seek to encourage competitive markets for energy efficiency and renewables
- Competitively bid unless unwarranted
- Independently evaluate programs on individual basis
- Majority of conservation funds committed in year received
- All classes and geographic areas should benefit
- Complement, not compete with, existing programs

14 Vermont Statutes Annotated, Title 30, Section 209 (d)

15 Efficiency Vermont was set up such that if a different contractor has been selected in the rebid, it would have transferred whole to the successor.

16 Burlington Electric Department was granted a separate 11-year order of appointment to act as an energy efficiency utility for its service area. See Vermont Public Service Board, Docket 7466.

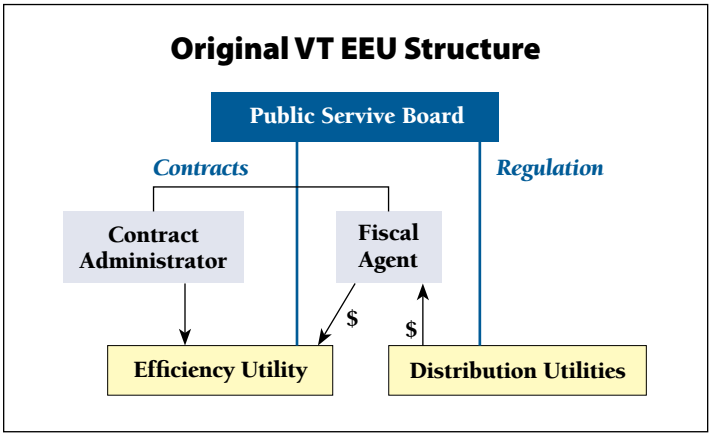
consumers is supplemented by a mission to address whole buildings and systems. Vermont's program, however, does not address renewable energy investment opportunities, whereas Oregon's does.

Both states continue to require long-run resource plans from their electric utilities. In Vermont, the state legislature has taken steps to assure that the EEU participates in utility planning by directing the regulator to create the Vermont System Planning Committee. This committee includes all the utilities, the EEU, and other stakeholders and represents an iterative process to inform how efficiency can meet system planning needs and how system planning needs should guide energy efficiency deployment. Vermont regulators are also supervising efforts to "geo-target" energy efficiency to places in the state that can avoid capital investments if load growth is actively managed through demand-side investments. These processes also feed utility Integrated Resource Plans (IRPs).

Both Efficiency Vermont and Energy Trust of Oregon have developed organizational stability through their good performance. Funding stability is also good, with appropriate processes from consistent overseers in place to reassess funding levels from time to time. Their statewide branding has cemented their position in the markets as the energy efficiency authority in their states.

Accountability and Oversight

The Vermont Public Service Board (VTPSB) paid careful attention to the details of oversight and accountability. It created the post of contract administrator (non-governmental and put out to bid) with the duty of closely monitoring the details of the EEU's franchise on behalf of and reporting to the Public Service Board. The contract administrator device allowed close but responsive oversight with less burdensome process than would occur if the VTPSB exercised oversight directly. This sort of responsive oversight is particularly important when doing market transformation programs, which often require frequent adjustment to match market changes. In addition, the contract with the energy efficiency utility set out very specific guidelines for program areas as well as frequent reporting intervals. The activities of the EEU are well reported and easily accessible by interested stakeholders and the general public. Contract disagreements with the EEU have been brought to the contract administrator



first. Appeals may be made to the VTPSB for decision and resolution with limited rights of appeal to the courts (abuse of discretion only). This places primary oversight authority in the VTPSB. Hawaii has adopted this contracted contract administrator structure. In the Vermont transition to a long-term energy efficiency franchise, the role of contract administrator was dropped. The Vermont Department of Public Service (VDPS) will serve many of the functions performed by the contract administrator.

VTPSB also established a fiscal agent (non-governmental, totally separate from energy efficiency utility, and engaged by competitive bid) who holds, disburses, and accounts for the ratepayer money collected by distribution utilities and expended by the EEU. Hawaii has adopted the fiscal agent also. The fiscal agency disburses funds upon approval by the contract administrator. The use of a fiscal agent is a device borrowed from telecommunication regulatory practice to support universal service. The use of a non-governmental fiscal agent has kept ratepayer efficiency dollars out of the hands of state government and thus protected from the budget raids experienced in several other states. Use of a fiscal agent under contract to the VTPSB assures to the extent possible that efficiency funding remains within the utility system under the supervision of the regulator, rather than being treated as "funds of the state" subject to state budgeting limitations, appropriations trade-offs, and state procurement requirements. Transparency promotes confidence that these service contractors are seen as serving the program.[17]

An important distinction involves customer premises information. Efficiency Vermont was built to have access to usage data for all electric utility customers in the state, sharing access with the utilities. This choice enables the

EEU to maintain a database for every customer premises that tracks all contacts, while dovetailing usage data that can be vital to recommending the most suitable work plan for the customer. This choice also enables the utility to be aware of the services its customers are receiving. The energy efficiency utility protects this information in the same way the utility does. Non-utility administrators operate at a disadvantage in fully understanding customers' needs without this information.

Part of accountability is performance evaluation. In the case of Efficiency Vermont and Hawaii Energy, incentive plans are in place to set clear goals and to provide financial performance incentives to meet those goals. The level of these incentives provides a useful comparison to the levels of incentives claimed to be necessary by utilities to administer energy efficiency.

The VDPS, an agency that includes both consumer advocate and energy office functions, is responsible for measurement and verification of the efficiency programs implemented by the EEU. A portion of the efficiency funds is used to pay for this piece of administrative oversight. Hawaii has employed an independent measurement and verification contractor reporting through the contract administrator for this purpose.

The Oregon model is different from that originally used in Vermont, although Vermont's changes bring it closer to Oregon's. The Oregon PUC has a direct contract with the ETO, with contract oversight exercised by PUC staff rather than an independent contract administrator. The contract allows either party to air grievances with the other. Presumably any unsolvable disagreement would be resolved by the court system just as with any contract dispute, but no such major disagreements have yet occurred. Close communication and active collaboration exists between the ETO and the PUC (a PUC member sits as an ex officio member of the ETO's Board of Directors), which to date has prevented major disagreement from developing. The ETO's original 10-year contract now extended to 2026 allows a long period of stability for program implementation and the documentation of results.

All state third-party administrators covered here have used stakeholder advisory groups and deliver detailed annual reports to the regulators, although Vermont's and Wisconsin's have fallen into disuse.

Oregon PUC / ETO Agreement

- Controls manner in which ETO receives and expends funds
- Establishes operation guidelines
- PUC
  - Appoints non-voting, ex officio board member
  - Adopts orders and rules to assure funds paid
- ETO
  - Provides action plans for review
  - Provides annual budget and report
  - Advances notice for long-term contracts
  - Contracts for independent management review
- Either party can issue a "Notice of Concern"
- Either party may terminate for breach of contract

Based on experience to date, there is no upper size limit to a third-party administrator.

Energy service companies (ESCOs) report mixed experiences in third-party administration situations. On the one hand, the market may look stacked against value-added ESCOs in favor of a dominating statewide service provider. On the other hand, sound programs can supply a springboard to enhance the attractiveness of ESCO performance contracts.

Administrative Effectiveness

The Oregon and Vermont state models provide lean, centralized administration, reducing transaction costs. Transaction costs include not only the design and oversight of programs, but the costs of processing cost recovery requests at the regulatory commission. Both states' programs have attracted very high caliber personnel. The Vermont model uses fewer contractors to provide services. The Vermont energy efficiency utility relies on its own staff to do a large majority of program planning design and implementation (short of the actual installation of measures). The ETO has a smaller staff and relies more

17 In at least one state, New Jersey, there was a finding that the Board of Public Utilities is not allowed to set up the Vermont/Hawaii structure. Clarifying what is allowed is an important step in any transition.

on outside contractors. Staff at all four entities includes recognized national leaders in energy efficiency. The Vermont model raises the question of what effect the EEU might be having on the competitive provision of efficiency, as the consolidation of activity could result in fewer competing entities doing market-based efficiency. Experience indicates, however, that ESCOs are working in Vermont, using the energy efficiency utility's programs as a point of departure to provide additional services to customers.

Although administrative costs appear higher in Vermont than in other states and for other administrators, they fund powerful information and relationship management systems that return benefit in the form of more responsive and customized service as part of their programs. Problems benchmarking administrative costs are discussed in the Utility Administration section.

The ability to plan into the future for market and technology development is important, especially if market transformation is a priority. Independent administrators with short (three-year) terms may be constrained from making financial commitments that represent the long view. This was one motivation for making the change to a long-term franchise in Vermont, and the long-term agreement in Oregon reflects that state addressing this issue.

There is public participation in the shaping of efficiency delivery in Vermont through the periodic VTPSB hearings to review program accomplishments and to set budgets. The volunteer, self-perpetuating Board of Directors of the ETO, originally appointed by the PUC, is ultimately responsible for program decisions. In addition, the ETO has open advisory council meetings and its policies are published on its website and are subject to periodic mandatory review. Opportunity for public input into program design can occur through open solicitations by the administrator in both states.

All third-party systems have some obligation for savings to reflect the sources of funds in their states. Oregon measures equity by utility system over a multi-year horizon. Vermont also considers a multi-year horizon and primarily measures against county size. Vermont has done the most to overlay strategic deployment of energy efficiency on a foundation of long-term geographic equity.

Transition Issues

Vermont, Oregon, and Wisconsin had clear agreement among key stakeholders, including the legislature, to consolidate political as well as policy support essential to establishing a new independent brand or entity. In Hawaii, the third-party administrator Hawaii Energy is part of an established statewide strategy, the Hawaii Clean Energy Initiative. All involve the commission in a significant way.

There are start-up costs for establishing a new entity. The ETO needed to arrange outside financing prior to the transfer of utility collected revenue, and needed to build itself from scratch. Regulators need to support temporary start-up costs, generally via the energy efficiency charge. Vermont's early incentive plan for its energy efficiency utility was laden with process milestones to assure attention to organizational development – these metrics fell away as the organization matured. Vermont, Hawaii, and Wisconsin benefitted from selecting through RFP organizations that were ready to house and run the third-party administrator.[18] Although the success of Efficiency Vermont has led to efforts to make its relationship with Vermont Energy Investment Corporation more durable, its original design allowed for the entire operation to transfer to a new administrator (not unlike the management contracts that control administration of the U.S. DOE's national laboratories).[19]

The utilities in Oregon had continuing jurisdiction for a period of time over the existing or "legacy" programs, whereas the transition from utility programs to Hawaii Energy programs took just six months. The transfer of programs and duties may not always go as smoothly as anticipated. Policy makers thus must establish clear protocols on the details of transfer and enforce them if delays can't be appropriately justified. Speaking of utilities, attention to their incentives to support energy efficiency is an important and easily overlooked part of the transition. Oregon and Vermont regulators took some time before

18 They also benefitted from technical assistance in preparing the RFP from Lawrence Berkeley National Laboratory's Energy Analysis Program.

19 Vermont Public Service Board, 2010

coming to address the utility throughput incentive, whereas Hawaii regulators are considering it right away.

Scale is an issue. The Efficiency Vermont programs at the start were smaller than Vermont utility programs had been at their peak. Since its first year in 2000, until 2011, Efficiency Vermont spending has increased by a factor of nearly $6 to $41.8 million. This ramp-up allowed a steady increase in staffing and program capabilities while applying lessons to a smaller-scale operation.

The role of the regulator is also a transition issue. New processes may be needed. Striking the right balance while transitioning from litigating energy efficiency issues as part of rate cases to more of a contract management relationship is not trivial, especially when there remains the same need at the end of the day to be comfortable about savings totals and incentive payments.

Independent administrators in Wisconsin, Hawaii, and, until recently, Vermont, are designed to be replaceable. Contracts with administrators expire. These states built their independent organizations to enable transport of the brand (i.e., Wisconsin's Focus on Energy) to new administration with minimal service disruption. With forethought, this can be accomplished effectively. Wisconsin, in 2011, is the first state to demonstrate this transition.

Key to the transition is an expectation of stability at the end. Vermont and Oregon have clearly achieved that, as they have broad public recognition, utility support, and good performance to buoy them. Awareness of customer care during a transition is important, and customer-specific project information from a previous administrator should be available to a new administrator. Another key is recognizing that continuously improving not just the organization but the mission of the organization is essential to realizing full potential. In other words, the transition shows no sign of really ending. As this report is being written, Efficiency Vermont is part of a statewide project with the state's utilities to implement smart grid systems to benefit all customers while at the same time improving energy efficiency services from their existing successful level of achievement.

Utility Administration

Most states use utilities to administer energy efficiency programs. Even in Oregon and Hawaii, states with independent administration, non-investor-owned utilities choose to retain their energy efficiency authority; in Vermont, Burlington Electric Department has been granted an Energy Efficiency Utility franchise to deliver energy efficiency services in its territory, and Vermont Gas Systems delivers a full range of programs to its customers. In Michigan, utilities are obliged to deliver energy efficiency but have the opportunity to opt out of administering programs in favor of a third party, as discussed in the independent administration section. Several smaller utilities have opted out, but the two largest investor-owned utilities (IOUs), DTE Energy and Consumers Power, are administering their own programs.[20]

Utilities come in many forms and sizes, yet there is much in common among utilities whether they operate as vertically integrated, distribution only in restructured states, municipals, or cooperatives. All have the fundamental task of operating the distribution system connecting customers to the grid. All touch all customers every day. In this respect, they are monopolies and represent an obvious choice to administer energy efficiency services as part of their scope. As discussed in the introduction to the previous section, the utility financial motivation is an important consideration among many in assessing this choice.

Compatibility with Broader Public Policy Goals

The single strongest feature favoring utility implementation of energy efficiency is that the utility has the relationship with the customer (usually a relationship of trust and perhaps familiarity) and is knowledgeable about the customer's individual energy use. This relationship offers many existing communication channels that can be leveraged to promote the programs.

The greatest incompatibility, as discussed in the previous section, is that utilities make their profits by selling electricity. Other public policy goals such as environmental improvement and market transformation for efficiency products or processes are not inherently mainstream business interests for a utility. It takes a major corporate conceptual change of mission to make them so. This change of corporate mission requires consistent policy on the part of the governing body or state government, and regulatory incentives that align the policy goals with utility financial goals. Even when a utility has effective financial incentives, however, efficiency programs can be the odd duck within the corporation, vulnerable to internal competing sales objectives and general budget pressures unless specific priorities are established, either by government or internally by utility management.

A second beneficial feature of utility program administration is the potential for engaging in integrated long-run resource acquisition and capital investment planning. Many states continue to require integrated resource plans from their utilities and the efficiency investments are economically linked to those plans. The choice of tests to screen in economic programs is pivotal. A longer-term test that evaluates the resource value of efficiency compared with supply-side (generation) alternatives, such as the total resource cost test (TRC), the societal cost test (SCT), and the utility cost test (UCT), more successfully values energy efficiency than a test that measures short-term effects to those who only pay for and do not participate in the programs. Most states use one or more of the TRC, SCT, or UCT. Capital investment

20 Michigan Public Service Commission, 2010

planning has a growth management aspect, so if energy efficiency can slow or curtail growth in specific parts of the system, a utility can save the cost of more expensive substation and conductor investments. Con Edison is one utility that has made this a priority. Although internalizing the synergies of energy efficiency, capital planning, and resource acquisition is a sound idea, many utilities do not fulfill this potential, and Vermont's System Planning Committee and other cooperative efforts are showing how this function can be accomplished with independent administration. Where states no longer have integrated utilities, consumers still rely on effective use of the cost tests to screen in energy efficiency programs that will provide a system benefit.

A third beneficial feature of continued utility administration is retention of the existing infrastructure, knowledgeable staff, and relationships within the energy services professional community as well as relationships with distributors. Once a utility has developed a staff and infrastructure to develop and deliver cost-effective efficiency programs, there is reason to be cautious about taking steps to dismantle that infrastructure by assigning the duties elsewhere, although a transition into a third-party administrator can expressly seek to preserve knowledgeable staff and relationships in the new entity.

A fourth beneficial feature of utility administration is the opportunity to elevate "enterprise-wide" efficiency as a business imperative. Customer efficiency can be equated with cost-effective line loss reduction, for example, each reducing system needs. Efficiency for both customers and the utility system can be equally high priorities with accumulated benefits from delayed or avoided construction. A utility not motivated by throughput would be more likely to adopt an enterprise-wide efficiency imperative.

History demonstrates that implementation of energy efficiency by utilities can be successful. Among investor-owned, vertically integrated utilities in Utah, utility energy efficiency programs have grown over the last several years to be among the national leaders. Iowa, Minnesota, and Washington programs have been successful for years and are in process to achieve higher levels of savings. California utilities have had successful programs supported by affirmative resolution of the throughput incentive through decoupling, and a principle of maximizing cost-effective energy efficiency by making it the priority resource and creating a shared savings performance incentive system to reinforce that policy. Distribution only, investor-owned utilities in restructured states have also been successful, perhaps led by utilities in Massachusetts, Connecticut, and Rhode Island.

These efforts are poised to grow based on statutory and regulatory actions within the last four years. Energy efficiency managers in states such as California and Massachusetts, where significant attention to utility financial motives has been explicitly addressed, report that energy efficiency is a higher priority to top executives and others in the company when program success and financial success are linked and sufficient. Conversely, where these issues are not fully resolved, such as in Missouri and Arkansas, this condition is seen by the utility administrator as a deficiency.[21] On the other hand, focus on the performance reward system can become intense and reveals the importance of a clear and reliable performance reward system. California, which had a system of shared benefits for the utility programs in place from 2006 to 2008, saw significant unrealized utility expectations for performance reward when the independent evaluation, measurement, and verification (EM&V) process produced lower savings numbers than they expected.

The picture is not always clear. Iowa has seen years of consistent and productive program performance by its utility administrators without any adjustment to traditional regulation except a cost recovery rider. A significant increase in energy efficiency savings is now underway in Iowa. In interviews with several participants on the scene, it is unclear whether the increase can be accomplished with the same level of utility cooperation in the absence of some adjustment to the utility financial incentives.

Making a priority out of energy efficiency has mixed results across the range of U.S. municipal and cooperative

21 Both Missouri and Arkansas commissions have adopted a policy to address the throughput incentive through a lost revenue adjustment.

utilities. Successful performance in places like Sacramento CA, Austin TX, Long Island Power Authority, and New Hampshire Electric Coop indicate that non-IOUs are fine administrators with similar positive and negative attributes as their IOU brethren. Non-IOUs have to contend with the throughput incentive, by raising rates as needed to cover fixed costs, delaying raising rates and using reserves in hopes that other circumstances will mitigate rate increases, or dialing back energy efficiency to mitigate the lost revenue. Utilities with successful energy efficiency programs generally have a population (this does not mean every single customer) who is willing to pay for energy efficiency in anticipation of lower future costs. Although in most states municipal and cooperative utilities have the ability to adjust rates at will, a rate increase due to lost sales may encounter popular resistance, discouraging managers and trustees. Managers can be motivated to avoid this dilemma by diminishing commitment to energy efficiency, just as IOUs may.

Levels of spending on energy efficiency remain largely below those of a substantial number of utilities prior to the chaos introduced by restructuring. Many companies before restructuring made investments of an average of 4.5% of overall revenues in cost-effective energy efficiency.[22]

The utilities that achieved high levels of investment in the early 1990s had three factors in common: regulatory policy was clear and sustained, balanced regulatory incentives were in place, including internal rewards for corporate achievement in efficiency, and stakeholders supported the programs. As the forces of industry restructuring eroded these conditions, the rate of energy efficiency investment dropped. States and utilities with successful programs today will still need these factors.

As more states and utilities get involved with energy efficiency and the energy efficiency savings targets get larger, there is more discussion about paying attention to the business incentives faced by utilities. Perhaps the most extreme example of this emerged from a proposal from Duke Energy to link energy efficiency cost recovery and incentive payments to a fraction of the avoided cost of a power generator, rather than the typical "cost plus" method of compensation. An important aspect of this discussion is benchmarking what an independent administrator might cost to do the same job, and their comparative strengths and weaknesses applied in a particular state.

In a related concern, the increased use of energy efficiency resource standards for utility administrators has increased the emphasis on resource savings, potentially to the point of diminishing market transformation. Utility administrators focused on compliance are prone to this concern.

The following passage from a 2009 order from the Oregon PUC summarizes the views of many about the influence of utilities on energy efficiency:

> *… PGE (Portland General Electric) does have the ability to influence individual customers through direct contacts and referrals to the ETO. PGE is also able to affect usage in other ways, including how aggressively it pursues distributed generation and on-site solar installations; whether it supports improvements to building codes; or whether it provides timely, useful information to customers on energy efficiency programs. We expect energy efficiency and on-site power generation will have an increasing role in meeting energy needs, underscoring the need for appropriate incentives for PGE.*[23]

Accountability and Oversight

Utilities administering energy efficiency programs are under the supervision of their state commissions or governing boards as they are for all their other functions. Some state statutes require annual reports on energy efficiency activities. Budgets are set by rule or statute, and

22 Hirst, 1994. Efficiency efforts are commonly reported both as spending as a percentage of total utility revenues or as achieved savings as a percent of sales. Either is a good way of judging the relative level of effort among utilities that may be of vastly dissimilar size or climate conditions. The expended revenues are costs that have been allowed to be recovered in rates. Savings as a percent of sales may be a better gauge when developing energy efficiency as a resource, because it measures results, but it may not work as well for market transformation programs, which often take time before they yield savings, and those savings may be very hard to accurately measure. See ACEEE, 2010.

23 Oregon Public Utility Commission, 2009

programs are designed to meet the budget. Increasingly, savings targets are set by rule or statute, or they emerge from an IRP; then programs and budgets are designed to meet these targets. In some cases, the objective is acquiring all cost-effective energy efficiency, whereas other cases aspire to less than that.

As discussed earlier, ongoing collaborative processes provide a forum to discuss changes in energy efficiency markets and effectiveness of program strategies in real time, creating a community obligation to improve programs with agility, rather than rely solely on *ex poste facto* reviews with inevitable opportunities for second guessing and exposure to disallowances. The Connecticut Energy Conservation Management Board and the Massachusetts Energy Efficiency Advisory Council are perhaps the clearest statewide examples of these, as they are founded by statute.

It is also evident that there is tension between accountability to use consumer dollars wisely and the flexibility that energy efficiency program administrators need to respond to changing markets, technologies, and best practices. This is a challenge that is less often and less intensively encountered with independent administrators, for whom performance is more clearly the objective and the choices made along the way are not as intensely analyzed as they seem to be with utilities. An exception is Washington, however, where the utilities set their own goals and have considerable flexibility in meeting them. It appears that the Washington Utilities and Transportation Commission (WUTC) has not been closely involved in program design. Washington utilities participate in the Northwest Energy Efficiency Alliance (NEEA) market transformation programs but may also run transformation programs of their own. In either case, market changes can be met without first obtaining regulatory sign-off. Many states have determined that, as for independent administrators, utility administrators should be subject to independent evaluation measurement and verification organized by the regulator, rather than relying on the utility to self-assess.

Despite funds collected for utility energy efficiency administration remaining with a utility, there have been raids on these monies in state appropriations processes. Connecticut presents an example.[24] These experiences indicate that regulators interested in assuring that funds collected for energy efficiency are used for that purpose should consider ways to discourage state legislatures from considering raids. Solutions include: (1) embedding energy efficiency costs in regulated rates rather than reporting them as a separate charge on the bill (a rider to collect energy efficiency funds could be managed this way), (2) requiring multi-year program plans that require a network of business commitments that would be disruptive to untangle if budgets are abruptly reduced, (3) explicitly deploying energy efficiency to solve reliability problems or avoid capital investments, and (4) reporting results to demonstrate system value.

Based on RAP interviews with regulators and utilities, it is evident that energy efficiency is the most scrutinized of the routine things utilities do. Why does this appear to be so? One likely answer traces back to the persistent concern that utilities' interests in the success of energy efficiency are chronically compromised by their attraction to growth, leading to more capital assets, more sales, and more net income. A significant aspect of regulatory oversight of utility administered programs, then, is to resolve this concern successfully. Absent a resolution of inherent incentives that promote growth, oversight of energy efficiency administered by a utility is likely to be characterized by excessive conflict as expectations of regulators and the utility fail to match up. Defining success may take many forms, from achieving all cost-effective energy efficiency with flexibility and innovation, to minimizing complaints, to making clear demands for performance under threat of penalties for non-compliance.

Administrative Effectiveness

Utilities have developed and largely retained capable staff. Most, however, significantly supplement their staff from a fleet of contractors organized to support them. As spending levels rise and programs become more ambitious, there is reason for concern industry-wide (regardless of administrative model) about shortages of experienced program managers.

Regulators are properly motivated to maximize dollars collected for energy efficiency for buildings and systems as opposed to overhead. Skilled program administration is

24 Database of State Incentives for Renewables and Efficiency, 2011

an investment, however; simply minimizing administrative costs may be costly in such outcomes as uncoordinated programs and poor customer relationships. Attempts to benchmark administrative costs are inherently frustrated by inconsistent accounting methods and justifiable differences among states in program deployment strategies. Utilities do make significant use of contractors to moderate additions of fixed costs and get access to specialized talent. Regulators can assure that contractor management follows sound practices and may tend to scrutinize these relationships more than they do for independent administrators. As discussed earlier, management flexibility needed to address changing markets and technologies may conflict with regulators' desire to manage utility decisions to modify programs and strategies in mid-course. With sufficient flexibility, utilities can use operations and other data to target resources to their best uses and apply lessons quickly to improve programs.

Many states have encouraged the use of common programs statewide to reduce costs and also avoid confusion among consumers. New Hampshire has established a set of core programs that all utilities implement. Organizations like the Midwest Energy Efficiency Alliance, the Northwest Energy Efficiency Alliance, the Northeast Energy Efficiency Partnership, the Southeast Energy Efficiency Alliance, and the Southwest Energy Efficiency Project provide support to states to bring this consistency region-wide, while also supporting market transformation efforts.

In a similar vein of scale efficiencies, municipal joint action agencies like the Minnesota Municipal Utilities Association and American Municipal Power, as well as generation and transmission cooperatives like Great River Energy (serving Minnesota) and Associated Electric Cooperative (serving in Missouri, Oklahoma, and Iowa), provide support to member companies that want simple ways to deliver energy efficiency service to their retail customer/members. Bonneville Power Administration also provides energy efficiency program support for its municipal and public utility district customers. Performance of self-governed municipal utilities and cooperatives on energy efficiency ranges from very high to non-existent.

Transition Issues

For the most part, transition issues have not been relevant for utility administration. One counter-example stands out: New Jersey. Here, a series of decisions over the course of several years has shifted energy efficiency program responsibility among the utilities, the Board of Public Utilities, and an independent administrator. Longer-term implementation roles have been unclear for several years. Regulators announced in 2010 that another shift may occur. This back and forth and uncertain experience has shown that it is very challenging for the program administrator (whether the utility or the independent administrator) to reassign its energy efficiency staff – as a result of the uncertainty, many staff leave their companies. This sort of dislocation happens in business regularly, however. Perhaps more challenging was a short ramp-up period to resuming administering the programs with all the accountability typical of utility regulation. Returning to an early point in this report, New Jersey appears to have lacked consistency and consensus over how to administer energy efficiency programs, while it maintained clarity that having a commitment to this resource is important.

Looking forward, a new transition issue is emerging. State energy efficiency resource standards adopted in statute or by regulators indicate that many utilities around the U.S. will be increasing energy efficiency spending and savings quickly over the next several years. Commissions will need to pay close attention to the needs of the community of interests, including the utility administrators, to assure that these achievable goals are successfully met.

Governmental Administration

The government is a significant actor in independent energy efficiency administration and utility administration as an overseer. The utility commission may choose the independent administrator and review and approve its plans and performance. When, however, government chooses to maintain significant authority over programmatic decisions and when state lines of authority in the executive and legislative branches assert control of plans and budgets, then the government is truly administering energy efficiency and contractors are implementing these centralized decisions.

Generally, government administration of consumer-funded energy efficiency programs has not gone as well as administration by other means. Maine and Wisconsin have abandoned a pure state agency administration and New Jersey is considering it, owing to obstacles peculiar to state government and enumerated later. As the next section on hybrid models will demonstrate, it may be that targeting the mission of a government program may improve its prospects for success.

NYSERDA with its *Energy $mart* brand is the stand-out success among government-administrated programs. Its status as a quasi-government corporation, as reported earlier, holds an important reason for its success. NYSERDA, a state authority with a long history of managing energy projects across a diverse state, was uniquely situated to take on the challenge of running the state's energy efficiency programs in 1998. Yet even here, New York will appear in the hybrid section owing to the fact that regulators have determined that utilities and NYSERDA will share responsibility to meet a growing savings target.

The Efficiency Maine Trust took over responsibility for utility consumer-funded programs, known as Efficiency Maine, in July 2010, implementing a state law.[25] The state PUC had been administering the program, an example of government administration that is now concluded. The Efficiency Maine Trust's board of directors is designated by statute or appointed by the governor, so it may act in the manner of NYSERDA. Like NYSERDA, the Efficiency Maine Trust board has significant autonomy. The board hired an executive director who is supervising staff that numbers at least 12. Statute exempts the Efficiency Maine Trust from state procurement rules, enabling a nimbleness

The Sustainable Energy Utilities of Delaware and District of Columbia

The state legislature of Delaware and the city council of the District of Columbia have each created a new structure for energy efficiency administration. This structure is called a Sustainable Energy Utility (SEU). The SEU operates in each jurisdiction out of a state agency, the state energy office, and in Delaware is to be funded primarily by bonds issued to support energy efficiency, as well as revenues from sources like carbon allowances and wholesale capacity markets. Consumers in both jurisdictions provide revenue also. Programs seek to maximize participants paying for their services, so they would emphasize information and financing. These administrators are not under the supervision of the utility regulator, and the extent to which they will coordinate with utilities is unclear. The District of Columbia awarded the contract to manage its SEU to Vermont Energy Investment Corporation, the same entity managing the energy efficiency utility in Vermont, and it is getting organized as this report is being completed. Progress in Delaware has been slower and the energy office is working on new legislation to clarify priorities and direction.

25 Maine Legislature, 2009

that is generally essential for effective administration of energy efficiency. The Maine PUC must approve 3-year program plans that authorize the Trust to spend money.

Compatibility with Broader Public Policy Goals

State government is likely to be attuned to statutory goals, but without care may not be nimble enough to manage changing markets or have sufficient influence with utilities to address them effectively.

Accountability and Oversight

When the state is the administrator of energy efficiency programs, the role of the regulator can diminish. Legislative committee overseers, who lack detailed expertise in energy efficiency, may focus on macro issues, diminishing the pressure on the administrator to improve service. Appropriators may see the government's energy efficiency program as an emergency source of revenue, even though the revenue came from ratepayers for a utility purpose. Politics may more directly drive decisions.

Oversight may focus more on proficient contract management than effective program performance and can be overtly influenced by politics. NYSERDA and Efficiency Maine Trust each have active boards with some autonomy to keep on top of staff activities and address policy issues promptly. Both are also accountable to their PUCs to some degree.

Administrative Effectiveness

Concerns here include:

- State in the market as a competitor to generators and ESCOs
- State becomes concerned about assuring revenue that supports a staff infrastructure first before worrying about quality service
- State may not be able to attract the best staff, at least not for long, and staff may be diverted to other government matters. Hiring rules can also be limiting. As a result, significant use of contractors becomes less of a choice and more of an inevitability.
- Fiscal rules and procurement rules may limit management and financial flexibility.

Transition Issues

Transition to program administration by a state agency is likely to encounter most of the same issues described earlier regarding transition to independent entities. Attention to the process limitations of government hiring and fiscal management tends to take more time than is usually anticipated and accounts for obstacles that emerged in New Jersey. Maine's transition from PUC administration was not too complicated because of its small size owing to its emphasis to date on contract management.

Hybrid Administration

Several states in recent years have made affirmative, intentional decisions to divide administration responsibilities between multiple types of administrators. Each choice represents important local concerns for such priorities as market transformation, service to low-income customers, and service to state and local government. For these states, including Maryland, Illinois, New York, Michigan, and California, they deploy two or more administrators, generally from the categories covered here. The added challenge is how they interact to serve the public as a whole.

Compatibility with Broader Public Policy Goals

The act of dividing the responsibilities generally makes clear the specific goals and reasons for the split. In Maryland and Illinois, attention to low-income customers and government buildings is the key mission carved out for the state energy offices in these states. The Illinois Energy Office receives a quarter of collected funds, and the rest go to the utility administrators. These state agencies are program administrators for their specific market segments, and have a strong focus to get the savings that are there to be had. Market transformation will also be a mission for the states. Program plans for each are approved by the commissions. These approved program plans detail savings targets for each entity.

Experience is inadequate to discern whether system planning and resource acquisition objectives will be melded in these two states or if the staffing at the energy office will be adequate and stable.

In New York, the utilities are now tasked by the commission to focus on savings-oriented programs, whereas NYSERDA focuses more intently on market transformation and finance opportunities. The commission, when launching the hybrid approach, indicated interest in fostering a diversity of approaches to energy efficiency, while also creating more accountability for the use of consumer dollars through its oversight of the utility administrators.[26] By taking this step, New York will not need to multiply the size of NYSERDA's energy efficiency operation to meet increased energy efficiency savings objectives. The commission has taken on a significant task in the New York hybrid model to manage overlapping administrators that in some ways operate in parallel and in other ways operate in competition. Again, experience is too thin to evaluate the success of this division. Utilities do have to staff up, and the commission is evidently considering all the issues characteristic of utility administration.

Michigan has hybrid administration because its optional third-party administrator, Efficiency United, has been directed to deliver all low-income programs for the investor-owned electric and natural gas utilities that are delivering an otherwise full portfolio of programs. This choice folds the consumer-funded low-income program mission together with the state weatherization program, creating significant efficiencies and customer clarity.

Indiana is in the process of creating a third-party administrator for designated statewide energy efficiency core programs. Utilities in Indiana are responsible for meeting energy efficiency targets and will use a combination of efforts from the third-party administrator and custom programs they run to meet these targets.[27]

In California, the division is driven by an apparent

26 New York Public Service Commission, 2008

27 In 2011, GoodCents was chosen as the Indiana third party administrator for energy efficiency; see Indiana Utility Regulatory Commission, 2011

political desire to enable communities to drive their own energy efficiency programs. Regulators there have directed that utilities will make up to 20% of energy efficiency funds available to sound proposals from communities to do energy efficiency. Some might say that this is not shared administration, that the utility is the administrator of this community program. However, the utility does not control or specify how the community uses the energy efficiency funds; it can reject a community's application for EE funds, but is accountable to state regulators if it does. And the utility has significant bargaining power in the contract negotiation with the community. In the aggregate, however, all the community programs that go on in California lead to little if any real coordination between what the utility is doing and what the community is doing.

In several other states, energy efficiency programs are administered by more than one type of administrator as well, due to the presence of public and cooperative utilities or federal entities. For example, in Oregon, the independent administrator is the primary administrator statewide, but public and cooperative utilities in conjunction with Bonneville Power Administration administer programs in their territories, as does Idaho Power in the small portion of Oregon it serves. In Hawaii, while the independent administrator serves most of the state, Kauai Island Utility Cooperative continues to administer programs in its territory.

Accountability and Oversight

For each side of the split, except in California, there is significant accountability and oversight. In California, communities do have to report results, but they are not accountable for performance in the same way the utility or the state agency is. Funding streams for the government side of the programs are secured by statute in Maryland and Illinois.

Administrative Effectiveness

For the Maryland, Illinois, Michigan, and New York systems, more time is needed to assess administrative effectiveness. Each entity of its type has the pros and cons discussed earlier in this report. In none of these does it appear that utility system issues are sorted out.

For California, the community allocation creates significant legal friction as hundreds of agreements are worked out periodically. The question this report is not

A New Idea – Private Sector Administration

A new form of energy efficiency administration has been offered. Funds would be collected from utility consumers in the usual manner. Objective priorities for energy efficiency programs would have to be established, as occurs in many states, but perhaps with more explicit rigor. Essential elements of what programs do would have to be decided centrally, probably by regulators. This work would be distilled in competitive RFPs. A central authority would issue these RFPs, probably the regulator, but it could be the utility. Bidders would compete for the right to deliver these program services while meeting state objectives and priorities.

Such an approach would allow anyone who has a good idea about how to turn consumer energy efficiency investments in energy efficiency savings to get support. Likely bidders would be retailers, ESCOs, or large building contractors, and they would use these funds to sweeten deals with consumers to get them to make the energy efficiency decision. In an effort to reduce the cost of energy efficiency in utility rates, this system would rely on new avenues of financing energy efficiency so participants would pay more of the costs. RFPs to serve vulnerable market segments would presumably assure that these customers have energy efficiency opportunities available. Regulators should consider how measurement and verification will be performed under this new approach up front to ensure that bidders understand the scope of such requirements.

It remains to be seen if any state will try this method or some variant of it, whether this method will support or conflict with existing ESCO markets, whether the method will prove useful only in certain market niches, or how this method will succeed at meeting the tests outlined in this report.

trying to assess is whether the creativity from these locally-developed programs is adding new learning to how to get more from energy efficiency investments, or if the effort is more of a "feel good" exercise that adds little and may detract from the overall effort of the utility.

Transition Issues

For Maryland and Illinois, the issue is communication. This may seem trivial, but both sides of the hybrid system are incredibly busy with their own start-up concerns. As a result, a structural means for communication, like the collaboratives in Illinois and Maryland, is important to knit these efforts together.

For New York, the issues are more around the regulator clarifying the program roles of the utilities vis-à-vis NYSERDA as well as circumstances when these two might be competitive. New York will demonstrate the extent to which competition for regulated energy efficiency administration provides value to customers. For Michigan's Efficiency United, transition appears to be smooth since existing organizations' activities are being augmented, and the big challenge for all administrators is building infrastructure to sell energy efficiency.

In California, the community program has been in place for some time, but based on information RAP has gathered, it is still settling.

Conclusion

As in 2003, we find that the more robust ratepayer-funded efficiency programs are less the result of administrative structure per se, than the clear and consistent commitment of policy makers supported by consensus. The figure on the top of page 9 shows how decision-makers have adapted administration structures in place in 2003 to their own needs, creating hybrids and variations. The map on the following page shows a range of different conclusions.

It is our view that either utility administration or administration by a third-party non-governmental entity can work well. It is important to set up the system for success. A micro-managed third-party administrator might be an utter failure, and in any case, explicit attention to utility motivations to support or avoid energy efficiency is crucial. Equally crucial is commitment to a decision; frequent transitions are a bad sign.

There has not been an academic quality study to evaluate the causal relationships that would declare a clear winner between these two systems, and it seems likely that local priorities and concerns will be so important as to dominate. Relevant factors to consider when comparing utility administration to third-party administration are responsiveness to PUC direction, ability to focus on customers and markets, regulatory performance incentives that are properly constructed and implemented, staff competency, ability to support the market (intended to cover timely payment of incentives and flexibility for changing market conditions), sustainability of the institution and its budget sources, and link to system planning and investment decisions. Regulators should be sensitive to chronic problems that limit effectiveness and should periodically consider improvements based on these lessons.

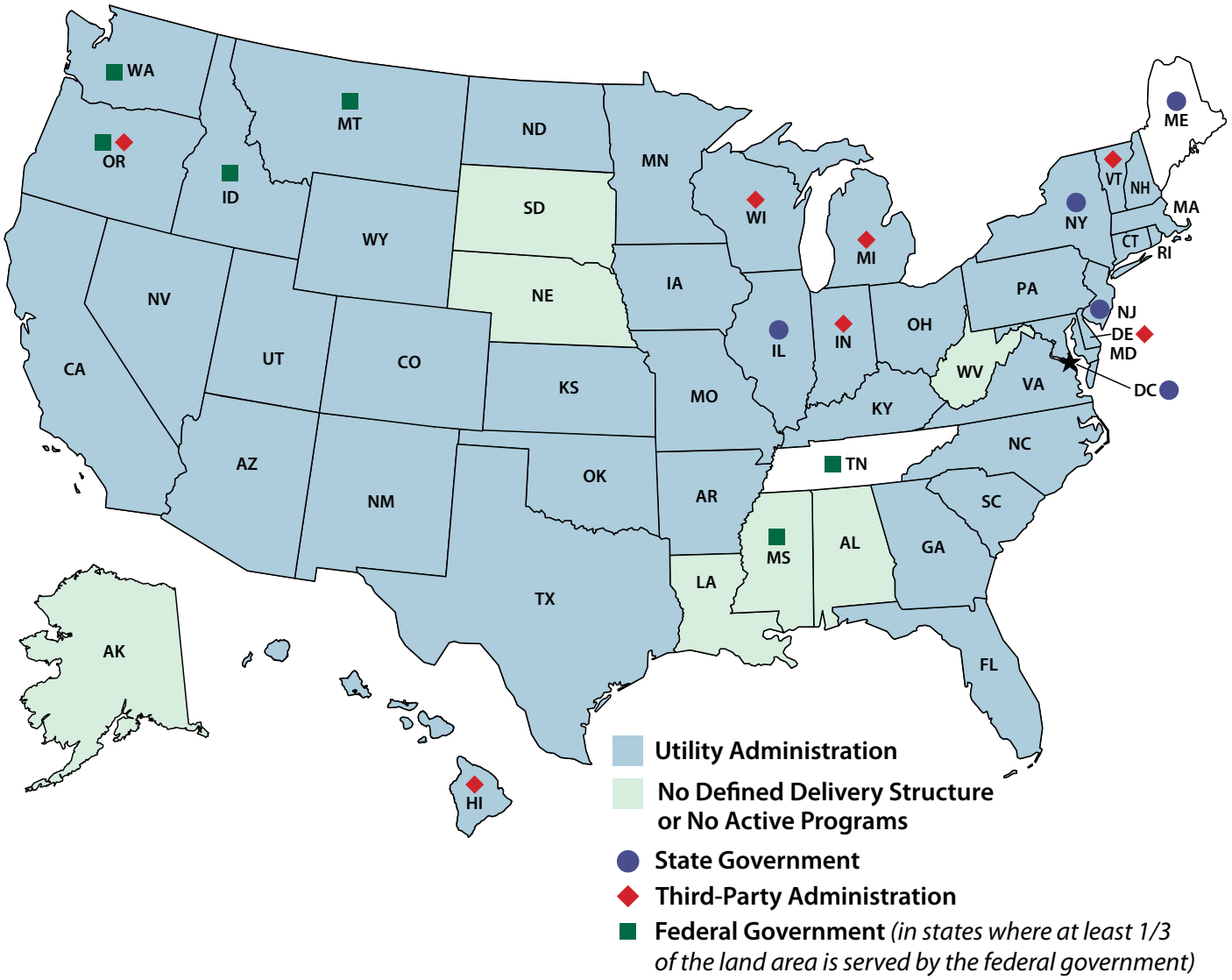
There are proven ways for municipal electric associations and generation and transmission cooperatives to support members interested in investing in energy efficiency.

State agency administration (with the exception of the unique quasi-independent character of NYSERDA) is a weaker third choice. State agencies are less likely to be able to maintain the required flexibility to be effective efficiency entrepreneurs, especially for market transformation programs. State agencies are also vulnerable to governmental and political events that are external to the energy efficiency efforts themselves. Finally, as mentioned earlier, one should be cautious about placing the state in what is viewed by other market participants as a competitive business, potentially compromising its traditional role as policy setter and industry overseer and regulator.

Finally, we urge commissions to consider carefully the value of stakeholder consensus and, if possible, the use of collaborative program design and oversight regardless of the administrative structure. A simple assessment of how a system of energy efficiency administration is going is that if there are good and improving results and few and fundamental complaints, then it is going well.

U.S. States with Defined Electric Energy Efficiency Delivery Structure

Effective December 2009



Source: *RAP 2009 Policy Grid Update*

Note: *This map tracks whether a state's energy efficiency delivery structure has been formally established by statute, order or contract, or by effective state actions. If the energy efficiency delivery structure has been established, the map indicates the type of entity that administers the energy efficiency delivery structure. In some cases, multiple entities deliver energy efficiency programs.*

Reference List

American Council for an Energy-Efficient Economy. (October 2010). *The 2010 State Energy Efficiency Scorecard.*

Database of State Incentives for Renewables and Efficiency (2011). *Connecticut Energy Efficiency Fund.* Retrieved September 2011, from http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=CT12R&re=1&ee=1

Eto, J. (1998). *Ratepayer-Funded Energy Efficiency Programs in a Restructured Electricity Industry: Issues and Options for Regulators and Legislators.* Lawrence Berkeley National Laboratory.

Gazze, C. (2010). *Con Edison's Targeted Demand Side Management Program: Replacing Distribution Infrastructure with Load Reduction.* Washington, D.C.: American Council on an Energy-Efficiency Economy 2010 Summer Study.

Federal Energy Regulatory Commission. (June 17, 2010). Docket RM10-23-000, Notice of Proposed Rulemaking: Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities.

Hirst, E. (1994). *Costs and Effects of Electric-Utility DSM Programs:1989-1997.* Oak Ridge, Tennessee: Oak Ridge National Laboratory.

Indiana Utility Regulatory Commission. (July 27, 2011). Cause Number 42693 SI, Order on TPA and EM&V Contracts.

Maine Legislature (2009). Efficiency Maine Trust Act (LD 1485). Retrieved 2011 from http://www.mainelegislature.org/legis/bills/bills_124th/chapters/PUBLIC372.asp

Michigan Public Service Commission (November 30, 2010). *Report on the Implementation of P.A. 295, Utility Energy Optimization Programs.*

Molina, M. (October, 2010). *The 2010 State Energy Efficiency Scorecard.* Washington, D.C.: American Council for an Energy-Efficient Economy.

NAPEE Leadership Group (2006). *National Action Plan for Energy Efficiency.* Washington, D.C.: U.S. DOE and U.S. EPA.

New York Public Service Commission (June 23, 2008). Case 07-M-0548, Order.

Oregon Public Utility Commission (January 22, 2009). Docket UE 197, Order 09-020.

Raab, J. (1995). Case Study: California Demand Side Management Collaborative. In F. Long, *The Power of Environmental Partnerships.* The Dryden Press.

Regulatory Assistance Project (2009). *State Energy Efficiency Policy Inventory.* Retrieved from http://www.raponline.org/featured-work/rap-offers-state-by-state-analysis-of-energy-efficiency

Vermont Public Service Board (December 20, 2010). Docket 7466, Order of Appointment.

Vermont Statutes Annotated. Title 30 Section 209 (d).

York, D. (December 2002). *State Scorecard on Utility and Public Benefits.* Washington, D.C.: American Council for an Energy-Efficient Economy.

Appendix 1:
State Electric Energy Efficiency Spending as a Percent of Utility Revenues

State/Region	1993	1996	2000	2009
New England				
Connecticut	1.79	1.08	2.33	1.36
Maine	1.27	1.43	1.07	1.30
Massachusetts	2.55	1.51	2.02	2.20
New Hampshire	0.33	0.47	0.04	0.95
Rhode island	1.98	1.48	1.88	2.66
Vermont	2.48	0.81	1.08	4.40
Mid-Atlantic				
New Jersey	0.29	0.59	1.68	1.18
New York	2.43	1.09	1.01	1.73
Pennsylvania	0.16	0.11	0.15	0.70
E.N. Central				
Illinois	0.02	0.03	0.04	0.72
Indiana	0.67	0.44	0.04	0.18
Michigan	0.89	0.20	0.08	0.53
Ohio	0.38	0.22	0.04	0.14
Wisconsin	2.29	0.80	1.32	1.64
W.N. Central				
Iowa	0.62	0.83	0.8	1.78
Kansas	0	0	0	0.12
Minnesota	1.13	1.76	0.93	2.19
Missouri	0	0.05	0.01	0.39
Nebraska	0.05	0.01	0.01	0.35
North Dakota	0.13	0.17	0.42	0.01
South Dakota	0.04	0.16	0.03	0.34
S. Atlantic				
Delaware	0.18	0.39	0.22	0
Dist. Of Columbia	2.22	1.80	0.06	0.79
Florida	0.64	0.76	0.44	0.52
Georgia	0.70	0.03	0.01	0.19
Maryland	1.83	1.65	0.08	0.46
North Carolina	0.31	0.42	0	0.60
South Carolina	0.46	0.36	0.13	0.23
Virginia	0.19	0.07	0	0
West Virginia	0.09	0.05	0.05	0

State/Region	1993	1996	2000	2009
E.S. Central				
Alabama	0.13	0.02	0.01	0.12
Kentucky	0.06	0.12	0.04	0.30
Mississippi	0.01	0.01	0.01	0.23
Tennessee	0.14	0.04	0.13	0.29
W.S. Central				
Arkansas	0.01	0.02	0.01	0.23
Louisiana	0.04	0.03	0	0.04
Oklahoma	0.04	0	0.01	0.10
Texas	0.26	0.23	0.11	0.29
Mountain				
Arizona	0.24	0.24	0.08	0.70
Colorado	0.40	0.70	0.14	1.11
Idaho	2.78	0.77	0.52	2.13
Montana	1.61	0.69	0.65	1.16
Nevada	0.51	0.07	0.02	1.18
New Mexico	0.04	0.05	0.09	0.82
Utah	1.60	0.50	0.23	2.44
Wyoming	1.33	0.54	0.15	0.26
Pacific				
California	1.40	1.00	1.24	2.86
Oregon	2.51	1.84	0.78	2.34
Washington	7.09	2.67	0.94	2.48
Non-Contiguous				
Alaska	0.03	0.03	0.04	0
Hawaii	0.14	0.24	0.81	1.65
US Total	**0.89**	**0.55**	**0.47**	**0.96**

Note: 2009 numbers are budgeted data; other years' numbers are actual spending.

Sources: York, D. (December 2002). State Scorecard on Utility and Public Benefits. Washington, D.C.: American Council for an Energy-Efficient Economy; Molina, M. (October, 2010). The 2010 State Energy Efficiency Scorecard. Washington, D.C.: American Council for an Energy-Efficient Economy.

Appendix 2:
Energy Efficiency Websites of Selected States

The websites of energy efficiency administrators are revealing. They show how the different entities plan to attract customers and how they plan to get commitments to projects.

Following are screenshots from several non-utility program administrators. Included here are:

Hawaii Energy	http://www.hawaiienergy.com/4/about-us
Efficiency Maine Trust	http://www.efficiencymaine.com/about
Efficiency United	https://www.clearesultrebates.com/wp-effunicom/?page_id=7
Energy Trust of Oregon	http://energytrust.org/about/
Efficiency Vermont	http://www.efficiencyvermont.com/about_us.aspx
Wisconsin Focus on Energy	http://www.focusonenergy.com/About-Us/
Great River Energy	http://www.greatriverenergy.com/savingelectricity/
American Electric Cooperatives	http://www.takecontrolandsave.coop/
American Municipal Power	http://amppartners.org/consumers/conservation-sustainability/efficiency-smart/
Minnesota Municipal Electric Association	http://www.mmua.org/energy/index.htm
New York Energy $mart	http://www.getenergysmart.org/default.aspx
DC Sustainable Energy Utility	http://dcseu.com/programs.aspx

Hawaii Energy

Hawaii Energy Your Conservation and Efficiency Program SEARCH

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- Our Team
- Contact Us
- Our Partners & Supporters
- Career Opportunities

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About Us

Hawaii Energy is the state energy conservation and efficiency program implemented to help reduce Hawaii's dependence on foreign oil.

MISSION
To educate, encourage and incentivize the ratepayers of Hawaii to invest in conservation behaviors and efficiency measures to reduce Hawaii's dependence on imported fuels.

BACKGROUND
Utilizing ratepayer funds, Hawaii Energy offers cash rebates and other incentives to residents and businesses to help offset the cost of installing energy efficient equipment. In addition to rebates, the program conducts education and training to residents, businesses and trade allies (contractors) to encourage the adoption of energy conservation behaviors and efficiency measures. The program plays an important role in helping the state achieve the Hawaii Clean Energy Initiative (HCEI) goal of reducing total electric energy usage by 4.3 billion kWh by 2030.

This is a daunting task that will require a greatly expanded effort on many levels and will involve the proactive support of every citizen of Hawaii. Hawaii Energy will aggressively employ new initiatives in energy conservation and efficiency and also integrate these initiatives with renewable energy efforts to help meet all HCEI goals.

EMPLOYEES
Hawaii Energy employs approximately 35 employees in full and part-time roles with the knowledge, skill and passion to help individuals and businesses save energy. The Hawaii Energy team works together to assist residents and businesses with investing in energy efficiency measures to reduce the state's dependence on imported oil.

INCENTIVES
Residential – Solar water heating, high efficiency water heaters, heat pumps, compact fluorescent lights (CFLs), central air conditioning (AC) maintenance, ENERGY STAR® appliances, bounty program, whole house and solar attic fans.

Commercial – Lighting, air conditioners, pumps, motors, window film, energy studies, custom projects, submetering and central plant optimization.

ORGANIZATION
Hawaii Energy is a ratepayer-funded conservation and efficiency program administered by SAIC under contract with the Hawaii Public Utilities Commission serving the islands of Hawaii, Lanai, Maui, Molokai, and Oahu.

Efficiency Maine Trust

efficiency MAINE

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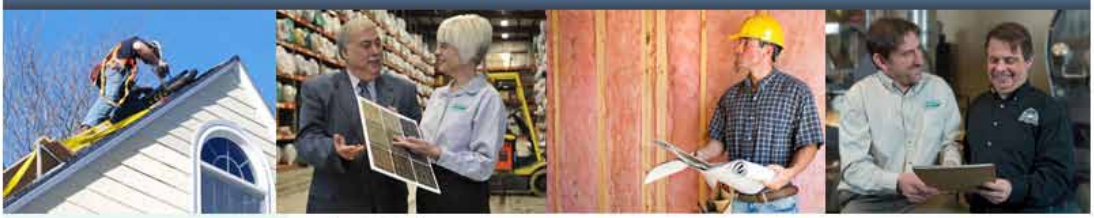

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- RFP-EM-005-2011
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- RFP-EM-009-2011
- RFP-EM-010-2011
- RFP-EM-011-2011
- RFP-EM-012-2011
- RFP EM-013-2011
- RFP EM 014-2011
- RFP EM 016-2011
- RFQ EM-017-2011
- RFP-EM-019-2011
- RFP EM-021-2011
- RFP EM-022-2011

About Efficiency Maine

Efficiency Maine was initially established in 2002 by the State Legislature's "Act to Strengthen Energy Conservation," with clear goals of saving energy, reducing energy costs, helping the environment and promoting sustainable economic development in our state. At that time, Efficiency Maine was managed by the Maine Public Utilities Commission.

Efficiency Maine is funded through the system benefit charge included in electricity rates, the regional greenhouse gas initiative and federal grants. Each year, Efficiency Maine carefully evaluates the cost-effectiveness of its programs individually and as a whole. The cumulative ratio of benefits to costs from 2004 through 2009 is 3:1, that is, every dollar spent has generated nearly $3 in lifetime economic benefits.

To date, our programs have produced the following benefits:

- Total lifetime economic benefits of approximately $400 million
- Savings of approximately four million megawatt hours of electricity—enough to power all Maine homes for a year
- Avoided emissions of two million metric tons of carbon dioxide (CO_2).

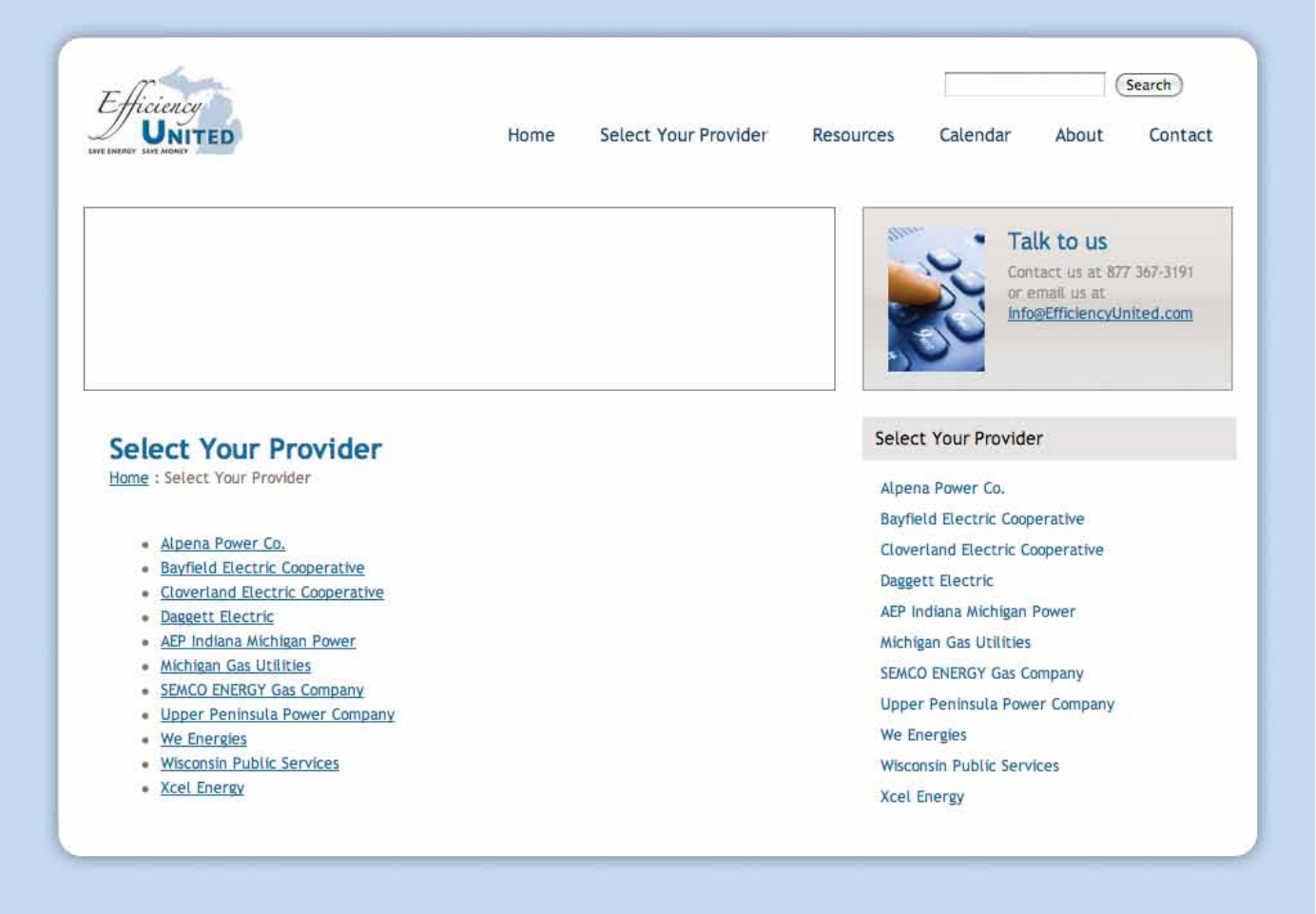
In 2009, The Efficiency Maine Trust – a nine person board of directors – was created to administer energy efficiency and alternative energy programs in the State of Maine under the banner of Efficiency Maine. On June 12, 2009, Governor Baldacci signed into law LD 1485 – An Act Regarding Maine's Energy Future. And in July of 2010, The Trust assumed responsibility for administering all non-transportation related energy efficiency programs for the State of Maine.

Today, Efficiency Maine continues to help businesses and residents all over Maine use energy resources more efficiently, reduce energy costs, and lighten the impact on Maine's environment from the burning of fossil fuels. Efficiency Maine's energy savings programs reduce the use of natural gas, propane, oil and electricity through energy efficiency improvements and the use of renewal resources, such as wind, solar and bio fuels.

We offer a wide range of programs providing incentives, training and technical assistance to residents, businesses, contractors, schoolchildren and others. We have special programs to help low-income Mainers and small businesses save energy and money. Some of our fastest-growing programs foster development of renewable wind and solar power.

- Efficiency Maine's Business Program has trained hundreds of mechanical and electrical contracting businesses as "Efficiency Maine Qualified Partners," to provide efficient products, services, technical advice and assistance to commercial customers. Since 2003, Efficiency Maine has paid cash incentives to more than 3,130 businesses to help them purchase energy-saving equipment; saving these businesses more than 177 million kWh annually – worth more than $234 million in avoided electricity costs.
- Our Residential Program partners with more than 300 retail stores to help promote high-efficiency CFLs and Energy Star appliances. Efficiency Maine also offers Maine PACE Loans a new financing program that allows eligible homeowners in participating municipalities attractive financing of up to $15,000, at a fixed rate of 4.99% for 15 years, for energy efficiency upgrades that make your home more comfortable and help cut your energy bills month after month. Partners such as the Maine State Housing Authority and local Community Action Programs help serve low-income Mainers.

Efficiency United



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About Us

Dedicated to energy efficiency and renewable energy

Energy Trust of Oregon is an independent nonprofit organization dedicated to helping utility customers benefit from saving energy and generating renewable energy. Our services, cash incentives and solutions have helped participating customers of Portland General Electric, Pacific Power, NW Natural and Cascade Natural Gas save nearly $800 million on their energy bills. Our work helps keep energy costs as low as possible and builds a sustainable energy future.

As a public purpose organization, we're committed to working for the greater good of all Oregonians. Learn more about us and what we do:

- **Who We Are**—Why Energy Trust was formed, our funding sources and how we work
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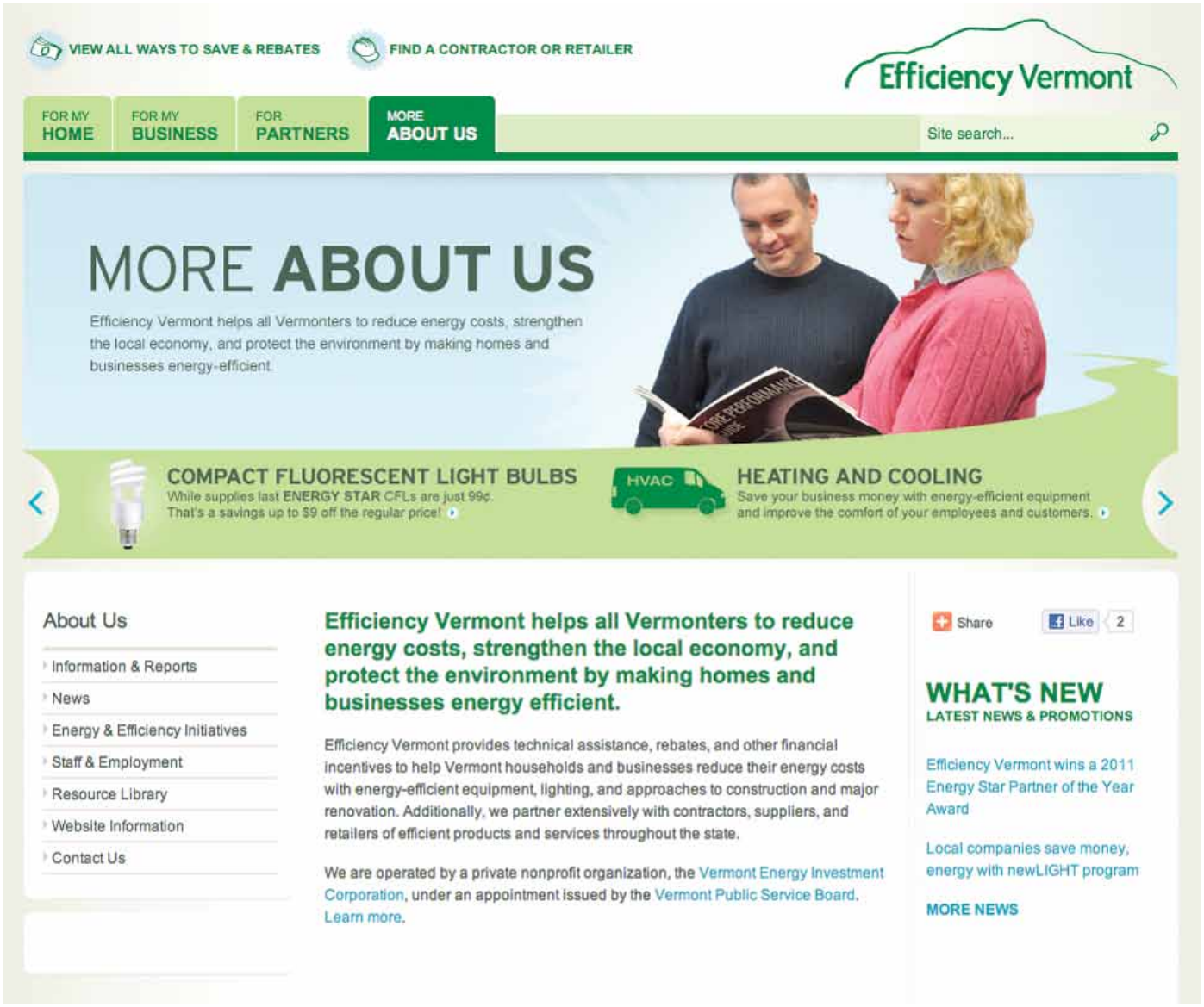

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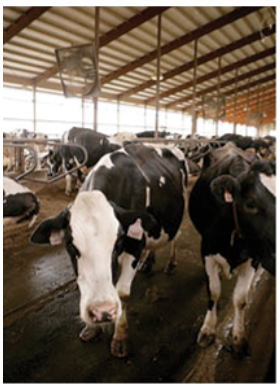

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About Us Overview

Organizational Structure

Focus on Energy works with eligible Wisconsin residents and businesses to install cost effective energy efficiency and renewable energy projects. Focus information, resources and financial incentives help to implement projects that otherwise would not be completed, or to complete projects sooner than scheduled. Its efforts help Wisconsin residents and businesses manage rising energy costs, promote in-state economic development, protect our environment and control the state's growing demand for electricity and natural gas.

The primary organizations that make up the Focus on Energy program include:

- Public Service Commission of Wisconsin: Independent state agency that regulates Wisconsin's public utilities and oversees Focus on Energy.
- Statewide Energy Efficiency and Renewable Administration (SEERA): Formed by the energy utilities to fulfill their obligations under Act 141, this organization creates, funds and contracts for the administration of statewide energy efficiency and renewable energy programs.
- Shaw Environmental & Infrastructure, Inc.: Administrator of the program's residential, business and renewable energy services.
- Energy Center of Wisconsin: Promotes economic and environmental sustainability through environmental research, education and training programs.
- Tetra Tech: Independent evaluation.
- Wipfli LLP: Fiscal agent.
- Baker Tilly Virchow Krause: Compliance agent.

We can help you find many ways to save energy and money and explore renewable energy options at your home, business or building/facility.

Eligibility for Focus programs depends on your electric and gas utility providers. Use the Find it with Focus tool to see if you qualify, or call us at **800-762-7077**.

Great River Energy

GREAT RIVER ENERGY

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Saving Electricity

Energy Efficiency
Energy Conservation
Load Management
Rate Design

Energy efficiency and conservation

At Great River Energy we recognize that energy conservation and energy efficiency, demand response, and price signals are less expensive than building new power plants.

The following resources will help consumers learn more about their electricity use and present behaviors and technologies to conserve energy.

Visit these websites to learn about the steps you can take to use less energy and to use it more efficiently.
mnbrighterideas.com »
togetherwesave.com »

Residential members may gain a better understanding of their electricity use with the Residential Energy Guide.
Residential Energy Guide »

Agricultural members may gain a better understanding of their electricity use with the Agricultural Energy Guide.
Agricultural Energy Guide »

Minnesota's electric utilities have a common goal of saving the equivalent of 1.5 percent of their annual, average energy sales through energy efficiency and energy conservation program participation.

Energy efficiency
Energy efficiency is using a technology to reduce your energy consumption and save you money.
Learn more »

Energy conservation
Conservation is changing your behavior to reduce your energy consumption and save money. It may require you to do with less, make slight concessions, or change your lifestyle in some way.
Learn more »

Load management
The cost of electricity is constantly changing. The kilowatt-hour delivered at dinner time is far more expensive than the one delivered at midnight. Our load management programs exist to take advantage of that cost difference.
Learn more »

Rate design
We review our rates and rate structure annually to ensure that our organization remains a viable business and that we continue to meet the needs of our members.
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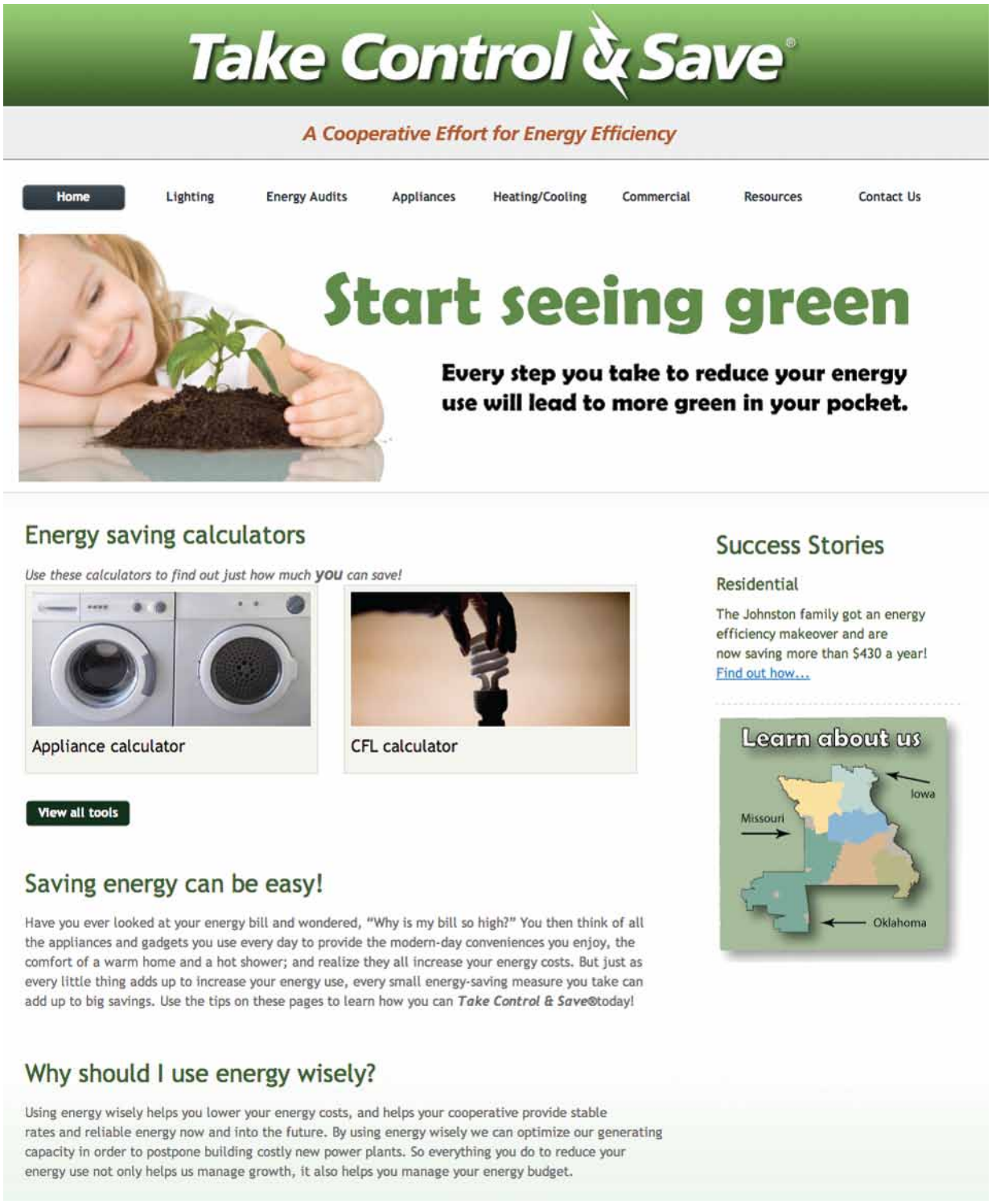
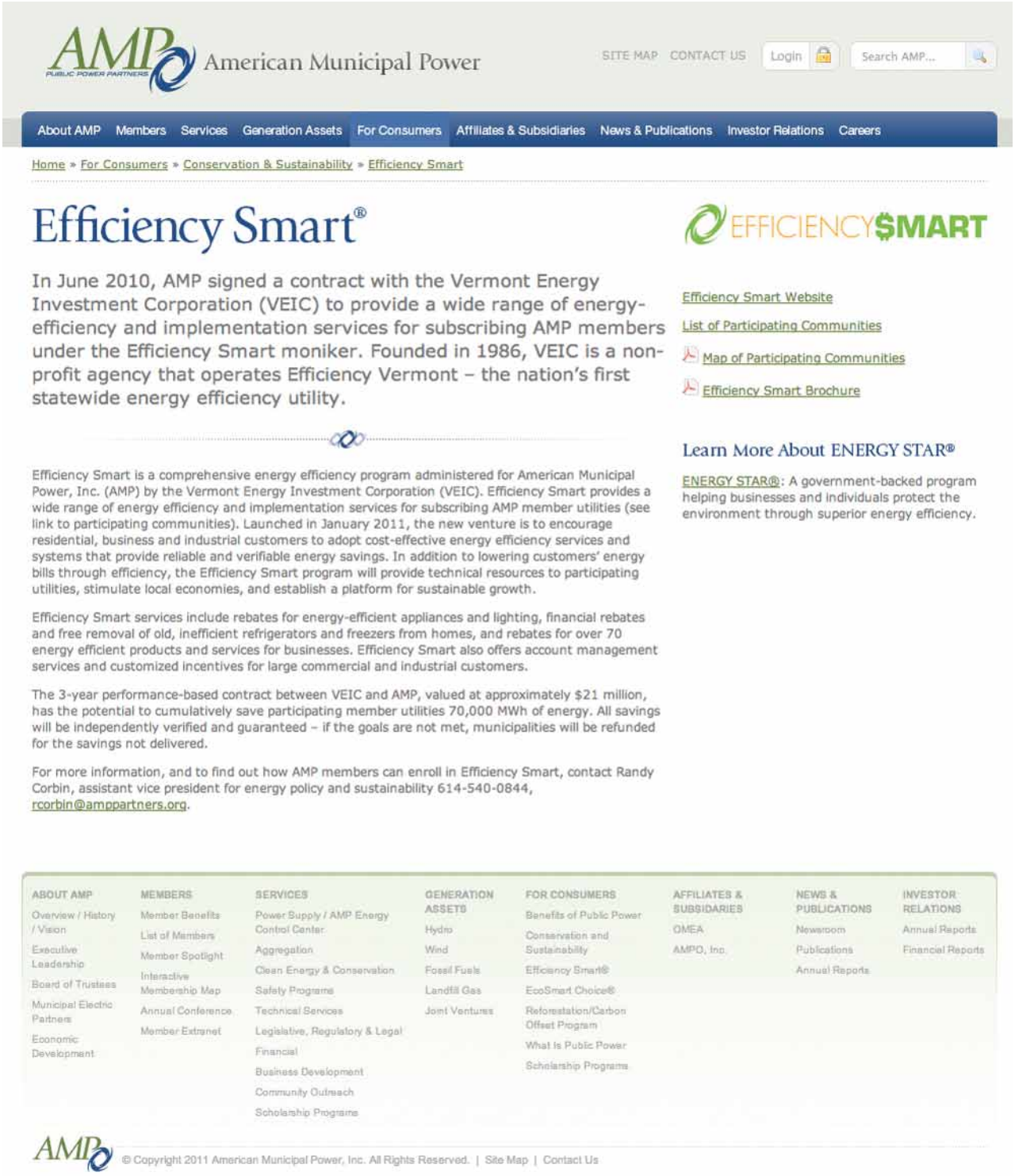
American Electric Cooperatives



American Municipal Power



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In June 2010, AMP signed a contract with the Vermont Energy Investment Corporation (VEIC) to provide a wide range of energy-efficiency and implementation services for subscribing AMP members under the Efficiency Smart moniker. Founded in 1986, VEIC is a non-profit agency that operates Efficiency Vermont – the nation's first statewide energy efficiency utility.

Efficiency Smart Website

List of Participating Communities

Map of Participating Communities

Efficiency Smart Brochure

Efficiency Smart is a comprehensive energy efficiency program administered for American Municipal Power, Inc. (AMP) by the Vermont Energy Investment Corporation (VEIC). Efficiency Smart provides a wide range of energy efficiency and implementation services for subscribing AMP member utilities (see link to participating communities). Launched in January 2011, the new venture is to encourage residential, business and industrial customers to adopt cost-effective energy efficiency services and systems that provide reliable and verifiable energy savings. In addition to lowering customers' energy bills through efficiency, the Efficiency Smart program will provide technical resources to participating utilities, stimulate local economies, and establish a platform for sustainable growth.

Efficiency Smart services include rebates for energy-efficient appliances and lighting, financial rebates and free removal of old, inefficient refrigerators and freezers from homes, and rebates for over 70 energy efficient products and services for businesses. Efficiency Smart also offers account management services and customized incentives for large commercial and industrial customers.

The 3-year performance-based contract between VEIC and AMP, valued at approximately $21 million, has the potential to cumulatively save participating member utilities 70,000 MWh of energy. All savings will be independently verified and guaranteed – if the goals are not met, municipalities will be refunded for the savings not delivered.

For more information, and to find out how AMP members can enroll in Efficiency Smart, contact Randy Corbin, assistant vice president for energy policy and sustainability 614-540-0844, rcorbin@amppartners.org.

Learn More About ENERGY STAR®

ENERGY STAR®: A government-backed program helping businesses and individuals protect the environment through superior energy efficiency.

ABOUT AMP: Overview / History / Vision; Executive Leadership; Board of Trustees; Municipal Electric Partners; Economic Development

MEMBERS: Member Benefits; List of Members; Member Spotlight; Interactive Membership Map; Annual Conference; Member Extranet

SERVICES: Power Supply / AMP Energy Control Center; Aggregation; Clean Energy & Conservation; Safety Programs; Technical Services; Legislative, Regulatory & Legal; Financial; Business Development; Community Outreach; Scholarship Programs

GENERATION ASSETS: Hydro; Wind; Fossil Fuels; Landfill Gas; Joint Ventures

FOR CONSUMERS: Benefits of Public Power; Conservation and Sustainability; Efficiency Smart®; EcoSmart Choice®; Reforestation/Carbon Offset Program; What Is Public Power; Scholarship Programs

AFFILIATES & SUBSIDIARIES: OMEA; AMPO, Inc.

NEWS & PUBLICATIONS: Newsroom; Publications; Annual Reports

INVESTOR RELATIONS: Annual Reports; Financial Reports

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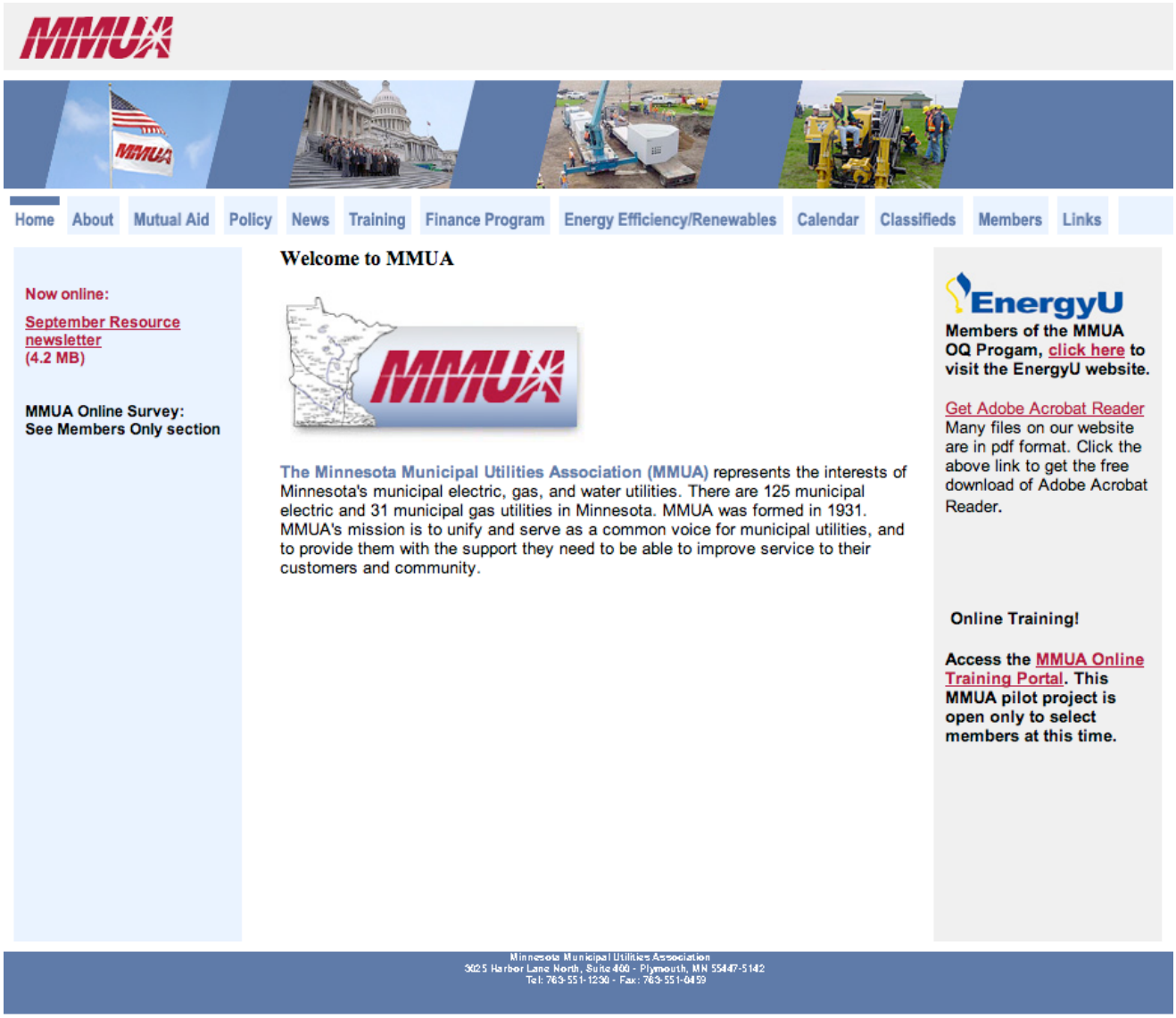
RAP

Minnesota Municipal Electric Association



New York Energy $mart

DC Sustainable Energy Utility

Home
Programs
Low-Income Multifamily
Single-Family Homes
Small Business
Solar
Resources
Events
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Programs

Introducing the first of several energy efficiency programs offered by the DC SEU:

- Low-Income Multifamily Program
  Designed specifically for low-income residents, this direct-installation program provides low-cost energy retrofits in income-qualified multifamily rental properties throughout the District.
- Single-Family Home Retrofit Program
  Designed specifically for single-family homeowners in selected neighborhoods throughout the District, this limited-time program provides significant opportunities for motivated homeowners to begin making their homes more energy efficient and achieve immediate energy savings.
- Small Business Direct Installation Program
  Available for a limited-time, this program provides energy assessments and energy efficiency retrofits to small businesses in selected neighborhoods throughout the District.
- Solar PV and Hot Water Programs
  Pilot programs designed to support the District's growing market for distributed renewable energy systems and collect market intelligence and hands-on project experience needed to deliver valuable programs to customers in the future.

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The Regulatory Assistance Project (RAP) is a global, non-profit team of experts focused on the long-term economic and environmental sustainability of the power and natural gas sectors. We provide technical and policy assistance on regulatory and market policies that promote economic efficiency, environmental protection, system reliability and the fair allocation of system benefits among consumers. We have worked extensively in the US since 1992 and in China since 1999. We added programs and offices in the European Union in 2009 and plan to offer similar services in India in the near future.
Visit our website at **www.raponline.org** to learn more about our work.

RAP

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