

MassSave: A New Model for Statewide Energy Efficiency Programs

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ABSTRACT

There are several models for delivering energy-efficiency programs within a state or utility territory. Programs may be administered by individual utilities within their own service territory as occurs in many states or by separate statewide 3rd-party entities such as occurs in Oregon and Vermont. The statewide approach can bring several advantages, including potential economies of scale, uniform branding and messaging, and reduced customer confusion. It also offers opportunities for alternative marketing approaches and program design, such as upstream lighting programs where effectiveness can be enhanced by scale. Conversely, individual utilities who administer energy-efficiency programs may be able to better customize program efforts to meet the unique needs of their customer base.

Given the desire by many utilities to continue to administer their own programs, the question becomes how can the benefits of a statewide approach be captured in a state where multiple utilities administer the energy-efficiency programs? How can the benefits of both utility administration and the statewide program administrator model be realized? Massachusetts provides us with the opportunity to explore these questions. This paper presents a hybrid model developed in Massachusetts that offers the benefits of statewide program administration, while allowing for individual utilities to administer programs. Under the statewide umbrella MassSave, the individual Massachusetts utilities collaborate and offer consistent statewide programs to all customers in Massachusetts. This paper presents the history and structure of the hybrid model used in Massachusetts, the challenges and progress to date, and lessons for the future.

Introduction

The move towards creating the MassSave brand began when the state legislature passed The Green Communities Act (GCA) in 2008. This act mandated the acquisition of all cost-effective energy efficiency and stimulated Program Administrators (PAs)¹ in Massachusetts to rethink the way energy-efficiency programs were designed and delivered. Massachusetts had a long history of success with energy-efficiency programs; electric PAs had been implementing successful energy-efficiency programs for more than 25 years among five electric PAs and nearly 15 years among six gas PAs. Each program in each service territory was unique, with

¹ Program Administrators refers to the entities that administer the energy-efficiency programs in Massachusetts. With one exception, the gas and electric utilities in Massachusetts administer their own energy-efficiency programs. Cape Light Compact is a municipal aggregator that administers energy-efficiency programs for 21 municipalities in Cape Cod and Martha's Vineyard.

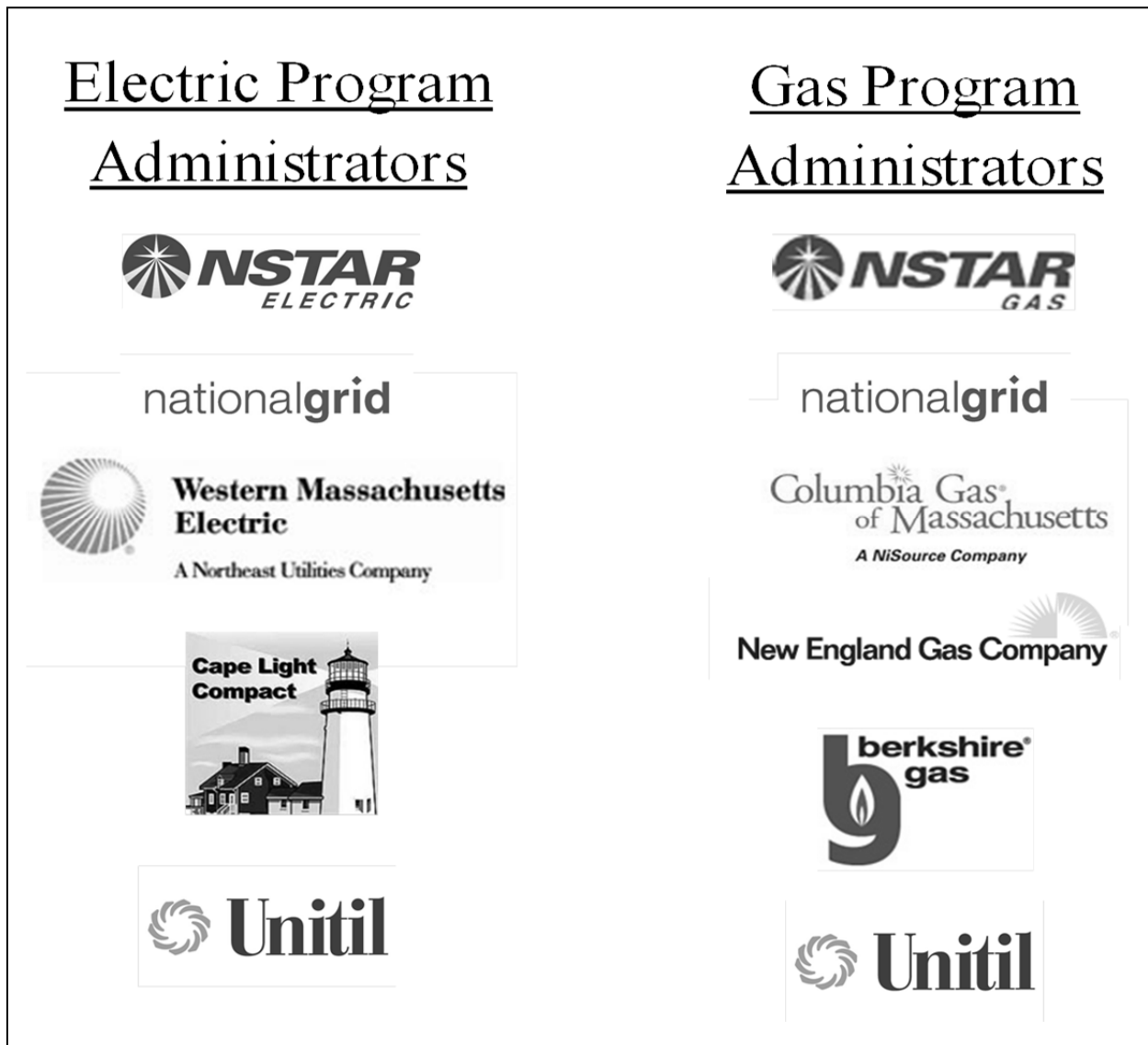
concentrated branding, marketing, and outreach strategies designed to counter the risk of oversubscription of programs and fixed budgets. The PAs had good track records designing programs and delivering savings with long-standing partnerships and alliances. In moving forward with a statewide approach, it was important to build upon this success, experience, and strengths of the individual programs and avoid the disruption that would occur with a completely new delivery entity. This was determined to be the best method to quickly ramp up efforts and truly achieve all cost-effective energy efficiency in Massachusetts.

The collaborative approach in Massachusetts was not entirely new. Electric PAs historically collaborated in some aspects of their program structure and delivery. Even as far back as the early 1990s, the electric PAs coordinated in the delivery of a statewide program for residential new construction, initially under a private brand (Energy Crafted Homes) before shifting to the ENERGY STAR™ labeled-home model in the mid-1990s. Operating under a Joint Management Committee, a single program design and consistent incentives, marketing, and training supported significant success in this sector. Gas PAs had also been fairly successful with a much smaller efficiency collaborative called GasNetworks™ that maintained common applications, a common Website, largely common program offerings and branding, and training and outreach efforts through the GasNetworks name. However, as the number of PAs grew and savings goals increased, it became clear that a collaborative approach was needed not only with the individual gas and electric programs, but across the state, among all PAs, and between both the gas and electric programs. This was crucial to maximize the savings with each customer, capture economies of scale, minimize customer confusion, and meet the goals of the Green Communities Act. It was incumbent on everyone in the energy-efficiency industry in Massachusetts to move forward with one common message and one call to action, regardless of utility provider. This was the driving force behind the creation of MassSave.

MassSave Structure and Oversight

It is important to understand that MassSave is not an entity by itself, but rather a brand established by the 11 PAs (see **Figure 1**) to serve as the umbrella trademark for all program offerings. It is sponsored by the PAs, which hold the branding rights and guidelines, and it is supported by the MA Department of Energy Resources (DOER) and the Energy Efficiency Advisory Council (EEAC). The brand was agreed upon by the Program Administrators through the collaborative process with the DOER and EEAC and is used to synchronize program offerings, delivery models, applications forms, and marketing plans.

Figure 1. Massachusetts Program Administrators



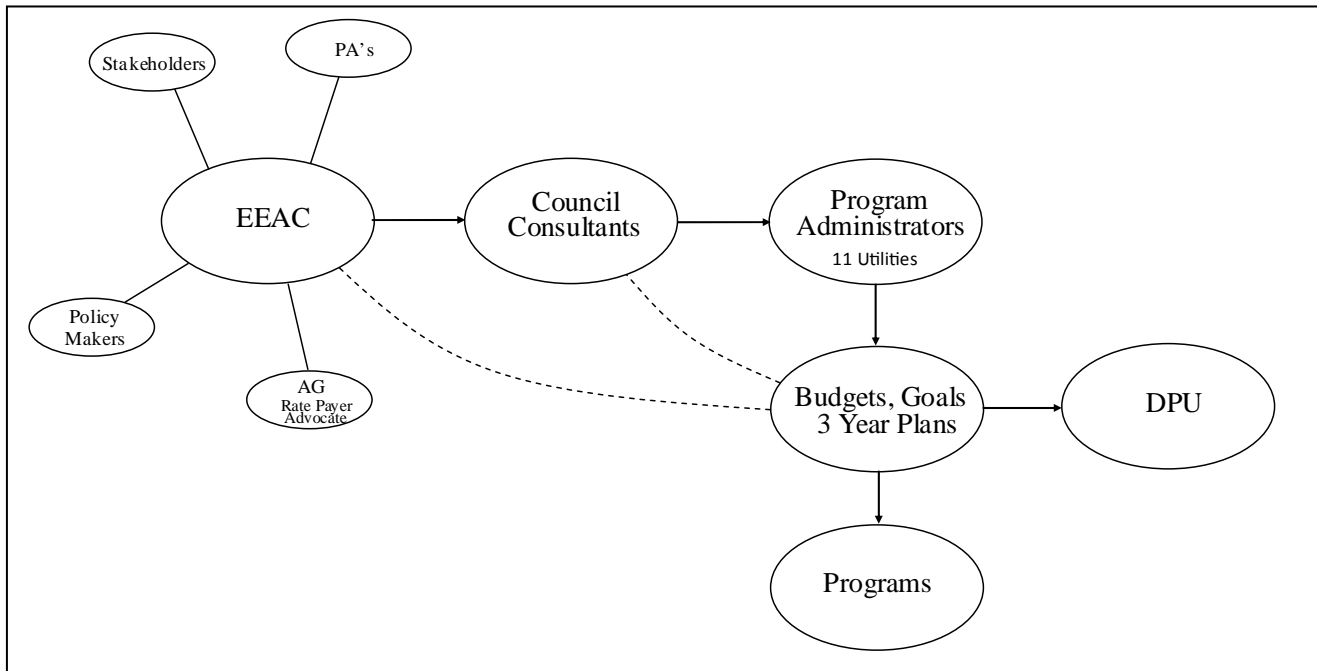
The regulatory environment in Massachusetts requires the electric PAs to submit a collective three-year statewide electric energy-efficiency plan and budget for approval to the Department of Public Utilities in addition to their individual plans and budgets. To provide oversight of the programs, the EEAC was established through the Green Communities Act as a stakeholder body in place to review and monitor the success of the program plans. The EEAC is made up of 11 voting members, with representatives from the Attorney General’s ratepayer advocate, large businesses, commercial businesses, low income interests, labor, residential customers, energy-efficiency experts, the environmental community, Department of Housing and Economic Development, and the Department of Environmental Quality. DOER serves as the chair of the EEAC. The 13 non-voting members represent the program administrators, energy-efficiency businesses, and a municipal aggregator. The EEAC meetings are run in accordance with Massachusetts’ Open Meeting Law and have a fairly structured process. The EEAC hires a technical Consultant Team (currently Optimal Energy and subcontractors) to work through the

program level analysis required for the review and monitoring of program development, execution, and evaluation. Each year priorities are established through an approved resolution that indicates to the PAs and the Consultant Team where the focus of the EEAC will be for the next 12 months. The integration and consistency of program offerings and delivery mechanisms were established as priorities for the EEAC from its inception.

The Consultant Team has an important role in this regulatory and oversight structure. It is the Consultant Team's responsibility to work with the PAs to execute the priorities of the EEAC and make recommendations to the EEAC on technical, delivery, and program issues. The PAs are focused on achieving individual goals, complying with individual regulatory obligations, and managing services to their customers. Real success is achieved when the Consultant Team and the PAs collaborate and implement solutions that benefit all parties.

The EEAC meets on a monthly basis. The Consultant Team keeps the EEAC apprised of any significant issues and works with EEAC to obtain support when new concepts, programs, or delivery models are considered. While EEAC members, the Consultants, and the PAs may not always agree on an issue, the level of trust between the groups is what keeps the process functioning and productive. The EEAC hires the Consultant Team as the technical experts to work with PAs, pursue the goals of the EEAC, and understand the technical issues so that they can be relayed to the EEAC if and when a critical divergence of perspectives occurs. The EEAC provides the direction and feedback to the Consultant Team and the PAs to ensure alignment and advance the agenda. Simultaneously, the PAs are the implementers and understand the logistics of program operations better than anyone. It is vital that they communicate concerns and potential pitfalls while remaining open to new ideas. Each role is distinct and needs to be respected to grow the industry and achieve the aggressive savings for Massachusetts. When there is a breakdown in communication or agreement, the issue may be brought to the EEAC at a monthly meeting. If the issue rises to the level of the EEAC's monthly meeting, a majority vote determines the outcome. Issues of disagreement can be further elevated to the Department of Public Utilities (DPU) if not resolved by the EEAC, although this has not yet occurred in the history of the statewide model. See **Figure 2** for a diagram of the MassSave regulatory structure and oversight.

Figure 2. MassSave Regulatory Structure and Oversight



Implementing the Massachusetts Model

Implementing the statewide model has been and continues to be an enormous coordination effort among the PAs. While the programs are consistent and need to be seamless through the handoff of electric to gas services or vice versa, each PA is regulated as an individual program administrator and is held accountable to individual goals with individual performance incentives. This system creates an intrinsic motivation for service territory and fuel-specific achievement of goals, which can be a powerful influence during program design.

Also, customer equity within service territories is important and the PAs place a high value on customer relationships. While Massachusetts is a geographically small state, there are significant differences between PA service territories in terms of level of urbanization, socio-economic conditions, size of the commercial sector, and building demographics. These kinds of differences frequently come up during program design discussions as any “one size fits all” approach is tested.

The 11 PAs also range significantly in size, with customer bases ranging from 200,000 customers to over 1 million. Therefore, the level of utility resources varies greatly. The largest PAs, National Grid and NStar, have dedicated resources in planning marketing, vendor procurement, evaluation, and implementation. They have sufficient staff to balance a variety of work requirements. The smaller PAs have fewer dedicated staff who are often responsible for many aspects of the energy-efficiency effort including program design, marketing, evaluation, procurement activities, and regulatory efforts. The smaller PAs have found it challenging to actively participate in all of the ongoing coordination and communication. When there is an increase or change in required resources, the smaller PAs are more susceptible to the change due to their greater resource limitations.

To address and manage the differences that occur between PAs in terms of service territories, resource limitations, and other unique individual PA needs, management committees that include representatives of all PAs were established. The Commercial & Industrial Management Committee (C&I MC) provides strategic oversight for all commercial and industrial programs and the Residential Management Committee (RMC) provides oversight for all non-low-income residential programs. Low-income residential programs are separately managed by the Low Income Best Practices Working Group. There are also several smaller working groups focused on specific commercial or residential programs that report to the C&I MC or RMC. These management committees and working groups meet regularly (biweekly and monthly, respectively) and are joined by the Consultant Team as they explore issues, consider new solutions, review practices, and plan and execute initiatives. Some of the groups have established charters and rules of engagement. Consensus is the desired outcome, but a majority vote can override a minority voice so that the group can move on to other issues and topics.

Recently, an Evaluation Management Committee (EMC) modeled after the successful C&I MC and RMC was created. The EMC includes the EEAC's Evaluation Consultant and representatives from each PA. The EMC works to identify evaluation priorities and set priorities for a variety of research areas that are managed by the PAs. Evaluation studies are completed by independent evaluation consultants with oversight provided by both the PAs and the EEAC's evaluation advisors. To date, the PAs and the EEAC advisors have been able to work through any disagreements. However, in recognition that significant differences may arise in this area, the EEAC created an appeals process where a PA and the EEAC's evaluation advisors can bring deadlocked issues before the EEAC. In addition, the PAs have the right to bring differences to the DPU for resolution. The fact that no issues have yet to be appealed or brought before the DPU is indicative of the collaborative and respectful relationship that has evolved between the PAs and the EEAC and its advisors.

Successes and Challenges

Although the statewide MassSave model has resulted in many successes, it has also brought about new challenges. As was the desired goal, delivery of programs has been improved and customer confusion has been reduced in many areas. On the other hand, individual PAs do not have the freedom and flexibility to make all the decisions they once had before the statewide model was implemented. In some cases, that means that, to retain consistency, strategies that might make sense for one PA may not be deployed, even when there might be benefits to consumers in that PA's service area.

Reaching consensus decisions can be challenging and time consuming. The PAs must constantly work to ensure the lowest common denominator solution does not become the outcome of the blended statewide approach.

The integrated model has also brought about questions and issues about consistency of data, questions about how to address differences in resources, and many questions about the role of the MassSave brand versus individual utility brands. The sections below present several examples of the successes and challenges of the MA statewide collaborative approach.

Collaborative Success: Residential Home Energy Services

The residential Home Energy Services program is an in-home audit program that provides recommendations for major measures installation and energy education to residential customers. Prior to the 2010-2012 Three Year Plans, the audit service for electric and gas customers was very similar, but the follow up processes for energy-efficiency installations were very different. There were vertically integrated models with direct install components, open market components, mail-in rebate models, and a combination of all three. Customers across the state were not receiving equivalent services and contractors were working under different program policies depending on the PA service territory. It was also unclear what the best approach was for achieving deeper savings as that became a guiding principle in program design.

The Residential Steering Committee (predecessor to the current Residential Management Committee) was created to tackle the challenge of establishing one consistent, cost-effective, and productive model for the residential home energy services program that could include a growing number of auditors and installers with a single program model. The Committee's focus was 1) the delivery model; 2) achieving deeper savings; and 3) the customer experience. Multiple stakeholders were involved in the development of the new approaches. Difficult design considerations were discussed, evaluated, and ultimately resolved, such as multiple customer entry points, installation and measure pricing, merit-based distribution of work, and QA/QC practices.

The new program design accomplished over 50,000 residential audits in 2011 and increased the implementation rate overall. This is tempered by the fact that the final delivery model took over a year to develop.

In summary, the new model is successful and an example for other statewide program models, but the time requirement to develop and implement the model due to the increased number of stakeholders was considerable.

Collaborative Success: Massachusetts Technical Assessment Committee

Another example of a successful collaborative statewide approach is the Massachusetts Technical Assessment Committee (MTAC). Prior to establishment of the MTAC, each individual PA reviewed technologies and established policies and savings calculations for them independently. There was significant overlap of efforts and, as a result, inefficiency. PAs were individually meeting and reviewing the same technologies and often developing different policies. Vendors had to navigate multiple PAs and identify the appropriate contacts at each organization. Many of the vendors would attempt to use interactions with one PA to achieve their objectives with another PA. The MTAC was established to provide one central review of new technologies which have the potential to cost-effectively save energy. It addresses residential and commercial applications and leverages technical expertise across all PAs. The MTAC allows the PAs to leverage resources to not only review the potential technologies, but also implement new technologies through pilot initiatives and share the results for possible statewide adoption.

Collaborative Success: Shared Staffing and Resources

Coordination of statewide programs among five electric PAs and six gas PAs is daunting, and many tasks lend themselves to sharing resources. As an example, each of the PA's

Commercial and Industrial Program Managers meet bi-weekly to work through program designs, delivery mechanisms, and collateral materials, and develop new initiatives. A cross-PA resource was needed to manage meeting schedules, agendas, minutes, and facilitation. To provide this resource, the PAs agreed to hire a shared full-time facilitator to manage the meetings. The facilitator works for one specific PA (NSTAR), but the cost of the facilitator is shared across all PAs. The group facilitator enables the PAs to focus on prioritizing tasks, reviewing new initiatives, and leveraging partnerships. Based on this success, the Residential Management Committee has followed the same model. The PAs are now considering the hiring of shared resources for other tasks and functions, such as a single Lighting Strategy/Product Manager to work across all PAs in development of statewide, cohesive strategies for the C&I lighting market.

Collaborative Success: C&I Upstream Lighting Initiative

Yet another example of collaborative success with the statewide approach is the Commercial Upstream Lighting Initiative. While this new and innovative initiative uses a delivery model that has long been used in residential programs, very few have tried and succeeded in implementing the model in the commercial sector. As is always a challenge with upstream models, limiting the program to individual utility territories creates barriers for external partners in participating in the programs and raises questions about how to ensure the proper allocation of savings by each utility territory. By working together to develop a statewide model that overcame the past barriers to commercial upstream approaches, the PAs have been able to move forward with a new innovative model that captures economies of scale and brought more than 50,000 MWh of new annual savings to the state in only its first three months of operation. These results could not have been achieved with PAs working individually.

Collaborative Challenge: Branding

A continued challenge with the statewide approach exists with branding. At the onset of statewide, consistent programs, it was determined that a statewide brand was needed to give identity to and build awareness of all the programs available in every sector, every service territory, and for every fuel. Yet branding of these programs was and continues to be the most contested issue in the collaboration process. From the state and EEAC perspective, it was important to have a brand that could be used by those in a position to foster trust and participation in the programs, including the Governor, Secretary of Energy and Environment, legislators, stakeholders, and program partners. These groups can use a brand to reference the programs to constituents and members and help to create heightened awareness, credibility, and value.

From the PAs' perspective, including their logos on marketing materials reduces customer confusion and also enhances their own brand. Co-branding the statewide efforts with the MassSave brand and the PAs' logos is recognized as a vitally important tool to increasing value, trust, and recognition with their customers. In addition, the PAs have seen that making their involvement in the energy-efficiency deployment effort as transparent as possible helps to reduce confusion among those who are not clear about what MassSave is, especially since it is not yet well recognized. The PAs are considered to be trusted advisors by their customers about energy issues and their involvement enhances overall success in the state. Energy-efficiency

programs have extremely positive attributes and the PAs want to be recognized for their role.

While a collaborative statewide marketing group comprising individual PA members and the DOER was established, the push and pull between the MassSave brand and individual utility brands continues to be a challenge. It is a constant navigation process to determine how best to accommodate and communicate differences in program offerings among service territories, such as those created by pilot programs that may only be offered by one PA or by differences in PA budgets. The collaborative marketing group also has the responsibility to their own company to promote underperforming programs or emphasize program availability for larger programs. How to accommodate these individual PA needs within the context of a single statewide marketing campaign has not been fully resolved and continues to be debated.

Collaborative Challenge: Consistency of Systems and Data

Another area that continues to be a challenge and presents a very large undertaking is developing broad access to consistent statewide program data. While PAs are regulated individually, all worked through a collaborative public process with the DPU to develop consistent reporting tables for each PA. Also, a statewide Technical Reference Manual has been developed and is updated on an annual basis. A regional avoided cost study is completed across the New England region on a regular schedule. While all of these efforts and changes have improved consistency, there are still some differences to be addressed.

The Consultant Team puts significant efforts into aggregating program results on a statewide level in a timely manner after every quarterly progress report and with any new filing or updated plan. The Commonwealth is exploring the creation of a data portal for the PAs to share and aggregate program data without compromising customer privacy or creating a excessive administrative work for the PAs. Striking the right balance in quantity and accessibility of data is a key focus of this effort. In the meantime, the PAs, EEAC and Consultant Team are working through what a statewide database should look like, how it would operate, and its likely cost.

Lessons Learned and Opportunities for the Future

With two years of experience, implementation of the statewide implementation model in Massachusetts has resulted in some lessons learned and a list of opportunities to enhance and improve the model over time. Not surprisingly for such a large effort with so many moving parts and stakeholders, communication continues to be a major challenge. While tremendous progress has been made in the integration and consistency of the PA programs, more work lies ahead.

Lesson Learned: You Can't Have Enough Communication

It did not take much time after the MassSave model launched to recognize the massive amount of coordination and communication that that was required for the effort to be successful. Defined roles, responsibilities, and processes for decision-making are critical components to moving forward in a successful manner with such a diverse and large group of stakeholders. It was a challenging transition for PAs to integrate the collaborative process work back into the internal organization and sometimes caused confusion both internally and externally. Frequent, regularly scheduled meetings with specific members, defined processes and centralized decision-

making are a necessity. Sector specific cross-PA working groups that established charters and standards for operating early on were more productive than those that had not. Ultimately, all cross-PA working groups, both permanent and temporary, have adopted this practice.

Lesson Learned: Set Concrete Baselines from Which to Measure Success

Understanding the impact of the model is important to know whether it is working. Has the MassSave model increased participation? Has depth of savings improved? Has the model improved the customer experience and reduced confusion? Unfortunately, the EEAC and the PAs did not define these metrics in advance, making it difficult to compare pre and post-implementation conditions. This has made it difficult to understand how the MassSave model has performed in comparison to the traditional individually run PA programs.

Opportunity for the Future: Continued Work on the MassSave Brand

As described above, the push and pull between the MassSave brand and the PAs individual brands continues to be a highly contested issue in the collaborative process. Evaluation studies on the MassSave brand have shown it is not as well recognized as the individual utility brands, particularly in the C&I sector. Yet, the MassSave brand is very new, has not been fully integrated to all marketing efforts; over time, greater recognition may evolve. As an example, besides listing MassSave on the rebate application forms, a customer is hard-pressed to find mention of MassSave or the MassSave logo on any of the individual PA websites. Clearly, the PAs' desire to support their own brands along with the MassSave brand is both understandable and justified. The question becomes, how can the benefits of a statewide brand work in conjunction with the PAs' desire to support their own brands? Is it possible for both to be satisfied? What is the right balance? Is there a statewide program without a statewide brand? Finding the right solution and balance will be a major area of focus in future years.

Opportunity for the Future: Continued Integration of PA and Gas/Electric Programs

While tremendous progress has been made in integrating individual PA programs, including the integration of gas and electric efforts with a "single-point-of-contact" system, there is more work to do. Some customers still report lack of communication and coordination between the gas and electric PAs. For example, it is challenging for PA agents to represent other PAs with customers, particularly with electric-to-gas or gas-to-electric issues, and this is frustrating when the facility manager or customer contact has to work with two individuals separately on the same project. Significant differences exist in staffing and resource levels of some gas vs. electric PAs. Understanding these differences and customer experiences, and finding solutions to address them will be an area of focus in the future.

Opportunity for the Future: Capturing Economies of Scale and Gaining Additional Efficiencies

One of the theories behind the MA statewide model was that it would reduce areas of overlap between PA efforts, capture new economies of scale, and ultimately reduce or minimize the cost of the energy-efficiency programs. While a reduction in cost of the energy-efficiency programs has not been discernible to this point, it stands to reason that with each PA running and

managing individual programs, even though they are consistent, there will continue to be opportunities to capture economies of scale and to eliminate duplication of effort. Finding the areas of duplication and overlap and developing solutions to address them that are acceptable to all stakeholders will continue to be an area of focus in the future.

Opportunity for the Future: Allowing for Freedom and Flexibility for the PAs to Make Quick Individual Decisions for Their Customers While Maintaining Statewide Consistency

In implementing the MA statewide model, the PAs have lost some of their ability to make quick, individual decisions in implementing the programs for their customers. No longer can they easily change program rules or make program adjustments that might be in the best interest of all involved without carrying the issue back to the statewide management committees for a collaborative and, sometimes, time-intensive decision. This has in some ways hurt the PAs ability to be flexible and responsive to their customers. This issue is particularly relevant in the context of diversity evident in individual PA service areas. What is the right balance between individual PA freedom and flexibility to quickly make decisions for their individual customers and statewide consistency? Finding this balance will be an area of focus in the future.

Opportunity for the Future: Addressing Differences in Resources

An ongoing challenge exists in the level of staff resources available within the individual PAs. The large PAs have many employees to manage and implement specific responsibilities in energy-efficiency programs and evaluation efforts while some of the smallest PAs have only a handful of people, each performing a wide variety of program-related functions. This leads to differences in each individual PAs ability to deliver consistent programs, develop and launch new initiatives, respond and report to regulatory needs, and maintain consistency with the large PAs. Sharing of staff resources between the PAs can be part of the solution to addressing this challenge, but how can it be done in a way that is fair and equitable to all the PAs?

Conclusion

The MassSave model has been in place for just two years out of a more than twenty-five year history of energy-efficiency programs in the state. By and large, it has been a tremendous success, but it is important to recognize that this success could never have been realized without several key elements that have enabled an environment for it to be successful. These elements include an oversight structure that supports a collaborative process, and a group of stakeholders and utilities that are committed to collaboration and success. This collaborative process through the DPU/EEAC/Consultant model (**See Figure 2**) is what creates the environment that fosters the collaboration. Traditional regulatory and oversight models that involve adversarial processes with contentious litigated proceedings between individual utilities, intervenor groups, and public agencies do not offer this collaborative environment. Working together through this Mass Save model, the 11 PAs collaborate to produce a single energy-efficiency plan for the entire state. Similarly, stakeholders are brought together through the EEAC. While there is much more to do, a truly working statewide model has developed that does allow for individual utility implementation. With the right regulatory structure, oversight, and committed stakeholders and utilities, this model is both scalable and adaptable to other states and jurisdictions.