

Initial Report on Scope, Tasks, and Timelines for the Demand Savings Group

March 31, 2016

Introduction

The 2016-2018 Massachusetts Joint Statewide Three-Year Energy Electric and Gas Efficiency Plan (“Plan”) includes a commitment from the Program Administrators¹ to explore creative new approaches to cost-effective demand reduction. Consistent with the Plan, the Program Administrators have assembled and will continue to work with a small group of interested and qualified experts, as part of the Demand Savings Group (“DSG”), to research potential demand reduction efforts. Issues relating to demand savings are complex, and it is important to design efforts that take into account both positive attributes of these programs and possible unintended negative consequences, such as increased energy usage. The Program Administrators appreciate the strong support and interest of the Department of Energy Resources (“DOER”), the Attorney General, the Department of Public Utilities (“Department”), the Energy Efficiency Advisory Council (“Council” or “EEAC”), demand response experts, and other stakeholders. The Program Administrators and the Council recognize the continued importance of achieving demand reduction and mitigating peak load growth. Through a highly collaborative and expert driven process, the Program Administrators will explore approaches to new cost-effective demand reduction/peak reduction electric and gas initiatives with the goal of the successful development and actual in-the-field implementation during the 2016-2018 term of new demand/peak reduction projects.

This Initial Report sets forth the structure, scope, milestones, tasks, and timeline for the DSG. This Initial Report also includes a high-level deployment schedule for anticipated demonstration projects. The Program Administrators have already had several productive meetings with demand response providers, evaluators, and industry experts. The Program Administrators also continue to analyze demand reduction reports and evaluations, and review demand reduction strategies deployed in other jurisdictions. In collaboration with DOER, the Attorney General, LEAN, ISO-NE, the Council’s consultants, and the Demand Reduction Subcommittee (described below), the Program Administrators continue to refine the analytical framework used to assess potential demand reduction efforts and reassess potential approaches. As lessons are learned, the PAs, in collaboration with members of the DSG, expect to continuously reassess their efforts and modify the milestones, tasks, and timelines as appropriate. The Program Administrators anticipate engaging in regular, collaborative discussions with the EEAC Demand Reduction Subcommittee and intend to report on progress to the Subcommittee and to the full EEAC as appropriate.

¹ Bay State Gas Company d/b/a Columbia Gas of Massachusetts, The Berkshire Gas Company, Boston Gas Company, Colonial Gas Company, Massachusetts Electric Company and Nantucket Electric Company, each d/b/a National Grid, Fitchburg Gas and Electric Light Company d/b/a Unitil, Liberty Utilities (New England Natural Gas Company) Corp. d/b/a Liberty Utilities, Cape Light Compact, and NSTAR Electric Company, NSTAR Gas Company and Western Massachusetts Electric Company, each d/b/a Eversource Energy.

Structure

The Program Administrators and the EEAC have worked collaboratively to develop an organizational structure that fosters an efficient, expert-driven process and provides appropriate stakeholder involvement. The Program Administrator-managed DSG will hold ad hoc meetings with industry experts to work through complex issues relating to demand reduction programs, including potential demand reduction opportunities, program design, assessment of potential and common assumptions for counting savings and benefits for cost-effectiveness determination, data, measurement, and verification requirements, and evaluation protocols. The DSG is co-managed by two PA leads who interact with group members, PAs, experts, the EEAC Demand Reduction Subcommittee, and the full EEAC when appropriate. The members of the DSG considered formal subgroups to address specific subject matter areas, but ultimately determined, with the support of fellow members of the DSG, that it would be more efficient to hold ad hoc topic based meetings instead.

In addition to the PA-organized DSG, the EEAC also formed a Demand Reduction Subcommittee, comprised of a limited number of interested Councilors. The Demand Reduction Subcommittee plans to meet bimonthly, and has held two initial meetings to discuss preliminary issues and a draft of this Initial Report. Subcommittee meetings are posted in advance, open to the public and subject to Open Meeting Law. The Subcommittee is responsible for providing input and feedback on the framework of analysis and milestones for analytic results and program development to the Program Administrator-managed DSG, and for reporting back to the full EEAC as appropriate. A copy of the Subcommittee Charter is attached.

The two groups plan to work collaboratively and have regular communications and exchanges of ideas.

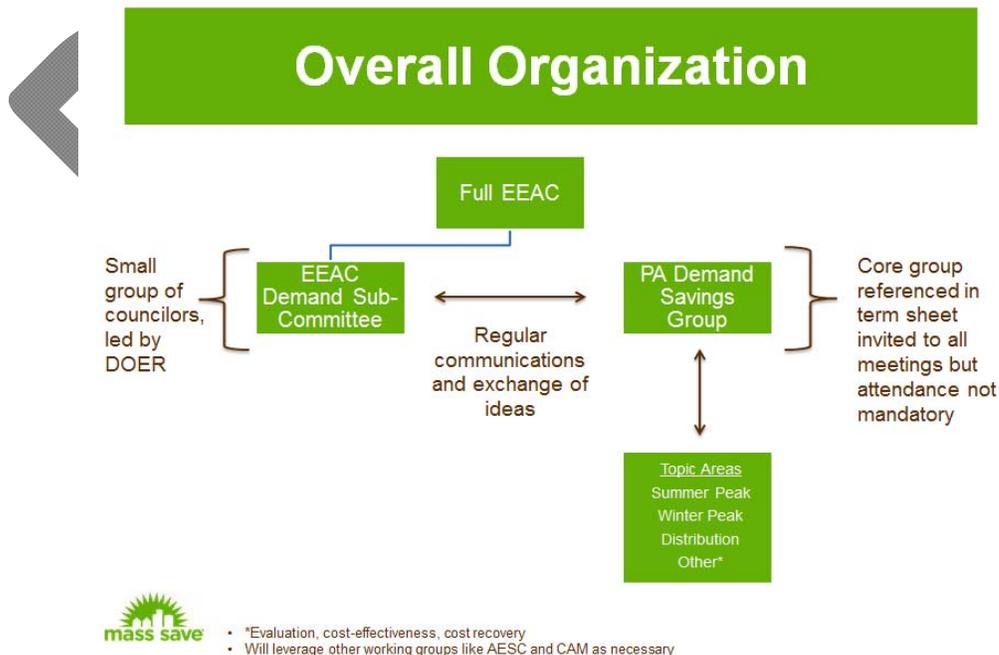


Figure 1: Group Structure

Scope

The primary scope of the DSG is to explore approaches to cost-effective new demand reduction electric and gas initiatives, and develop, prioritize, and implement in-the-field projects during the 2016-2018 term. The PAs, in collaboration with the members of the DSG, will continue to review at least three distinct issues associated with peak demand: (1) summer system peak; (2) winter peak price; and (3) distribution. The PAs will research strategies to implement demand reduction projects consistent with the goals and objectives listed below.² Consistent with the Plan and the successful processes used for developing energy efficiency programs, the PAs will leverage demonstration projects to test and evaluate implementation strategies.

Goals and Objectives

Goals:

- (1) Lower overall costs to all Massachusetts customers.**
- (2) Develop programs/projects that are compatible with efforts to improve the long-term sustainability and efficiency of the electric and gas transmission and distribution systems.**
- (3) Continue support of the Global Warming Solutions Act goals.**
- (4) Consistent with the Green Communities Act, develop cost-effective demand reduction programs/projects that provide customers maximum value.**

In order to meet the above goals, the PAs, in collaboration with DSG members, will seek to address the following objectives:

- (1) Identify opportunities to use demand more efficiently and increase reliability; evaluate/develop programs to take advantage of those opportunities.
- (2) Assess direct and indirect impacts of demand reduction programs on customer classes and the energy system, including the effect on emissions associated with generation.
- (3) Identify a suite of demand reduction opportunities that may provide benefits for various customer classes, including low-income and other vulnerable customers, for each service territory.
- (4) Develop a cost-effectiveness screening model with a multi-year and program-specific perspective in order to appropriately account for costs and benefits and provide appropriate incentive/signal to customers to ensure the long-term success of demand reduction programs.
- (5) Analyze and develop cost-recovery mechanisms that appropriately allocate costs, and provide reasonable performance incentives to the PAs if challenging but achievable goals are met.

² The PAs note that there are parallel efforts targeted at improving system reliability and modernizing the grid outside of the energy efficiency arena. The DSG will continue to monitor these efforts and related proceedings to ensure that proposed demand reduction projects are consistent with the overall policies and efforts also underway.

- (6) Develop evaluation protocols and an assessment structure that provides on-going feedback and useful, actionable results.
- (7) Develop and continuously evaluate short-term and long-term milestones.
- (8) Identify customer-focused methods to deploy potential programs/projects that have a beneficial impact and provide customer value.
- (9) Assess opportunities to leverage existing technologies in the energy efficiency portfolio that can also be used to facilitate demand reduction activities such as Wi-Fi thermostats and lighting controls.

Milestones and Tasks

Based on the research and work done to date, the PAs, in collaboration with DSG members, have developed initial milestones and tasks for the PAs (see Appendix). The PAs will work towards meeting these milestones, and based on the information learned reassess milestones, tasks, and projects. Updates on these milestones and tasks will be presented to the Demand Reduction Subcommittee and full EEAC as needed. Below is a list of the analytical and implementation milestones. Please see the Appendix for more detailed information on the milestones and related tasks.

Analytical Milestones

- Background Meetings with Experts
- Wholesale Market Research
- Develop Analytical Framework
- Identify Problems and Drivers
- Review and Evaluate Initial Recommendations
- Analyze Potential Costs, Risks, and Benefits
- Develop cost-effectiveness model
- Develop cost recovery and incentive structure

Implementation Milestones

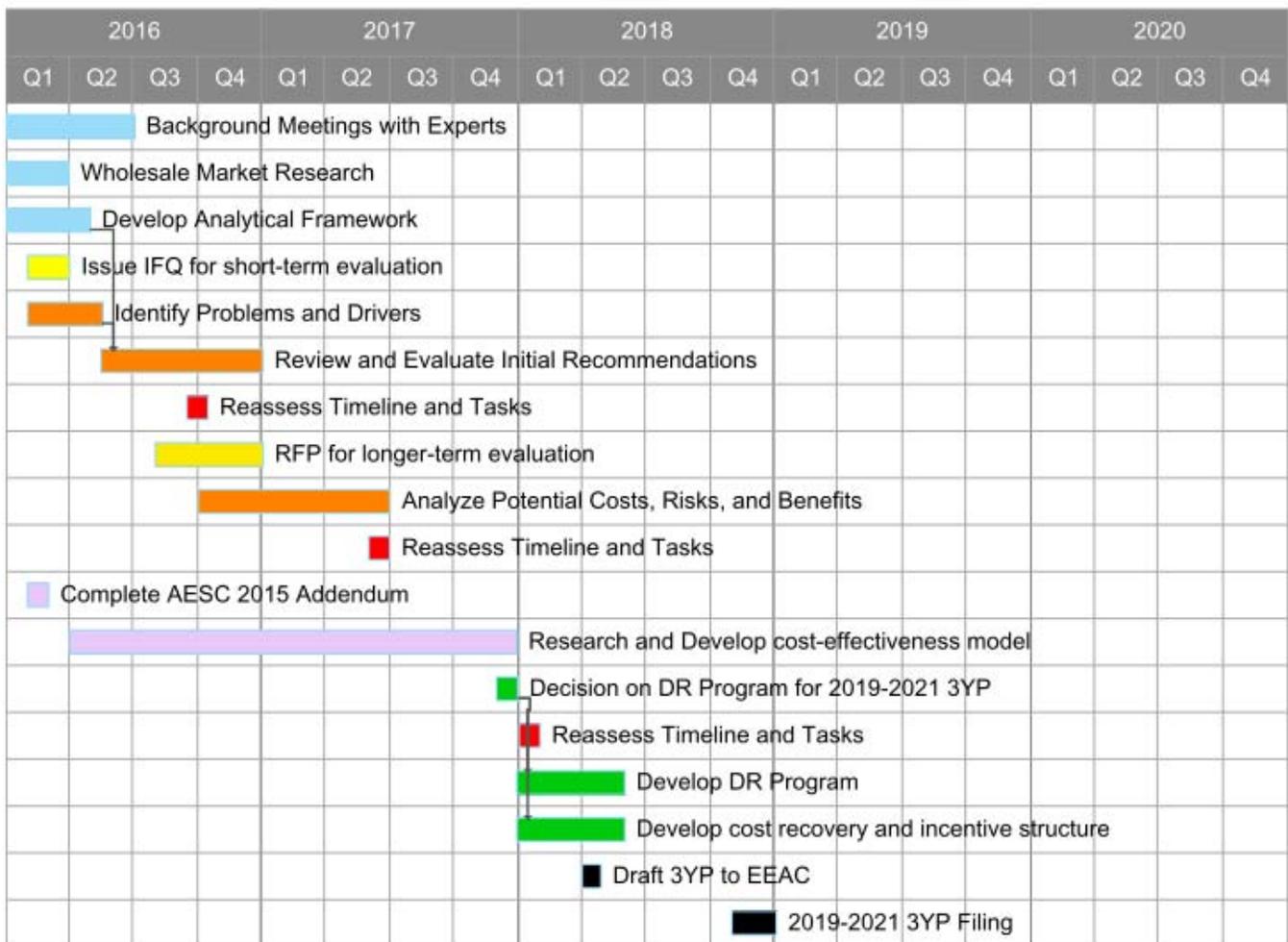
- Approval of demonstration project
- Select customer, technology, and vendor
- Customer enrollment
- Deliver program/call events
- Measure results

Initial Timeline for Analytical Tasks

Below is an initial timeline for the milestones and tasks discussed above (please see Appendix for a detailed description of each task and a detailed list version of the timeline). This aggressive timeline reflects the strategic approach that the PAs, in collaboration with members of the DSG, intend to undertake in order to assess the potential for demand reduction programs in accordance with the Green Communities Act. As discussed below, in parallel with this timeline,

the PAs plan to implement and review the results of demonstration projects and other in-the-field enhancements that may increase demand savings and/or decrease peak usage.³

In developing this timeline, the PAs considered the deadlines for the 2019-2021 Three-Year Plan and the tasks that need to be completed in order to potentially seek approval of cost-effective demand reduction programs as part of the next three-year plan. The PAs note that many of the tasks will likely continue beyond the dates in the timeline (e.g., the PAs will continue to meet with experts and review and evaluate new recommendations for demand reduction projects/programs as appropriate). While this timeline will serve as an initial guide for the DSG, the PAs, in collaboration with the members of the DSG and the Demand Reduction Subcommittee, will reassess the timeline periodically taking into account lessons learned, new recommended approaches, new technologies, results of demonstration projects, and unforeseen challenges. Further, if the PAs develop a cost-effectiveness screening model and demand reduction program at scale during this term, the PAs will seek all necessary approvals to implement the program.



³ For example, the PAs will implement demonstration projects and other program enhancements during 2016 in parallel to researching and developing a cost-effectiveness screening model.

Demonstration Projects

In parallel with the analytical approach to researching and developing demand reduction programs at scale, the PAs continue to actively review information to identify potential demonstration projects and other in-the-field program enhancements that will help the PAs gain a better understanding of costs and benefits of demand reduction in the context of the energy efficiency portfolio of programs. Demonstration projects are a valuable tool for testing and assessing technologies, customer willingness, and best practices.⁴ When developing demonstration projects or other program enhancements, the PAs are mindful to ensure that existing work is leveraged and not duplicated or undermined.

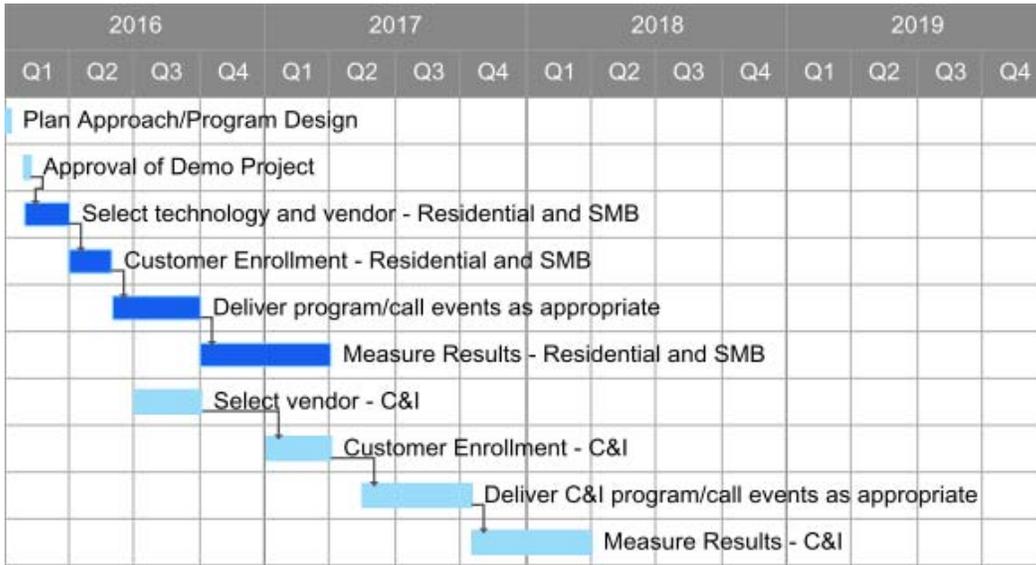
As the Department noted in its Order approving the 2016-2018 Three-Year Plan, demand reduction initiatives are new in the PAs' energy efficiency offerings, and different PAs are at different levels of readiness for deploying demand initiatives (2016-2018 Three-Year Plans Order at 141 (“Order”). The Department did approve demonstration projects, with some modifications, for National Grid and Cape Light Compact (Order at 144). PAs will share the results of these demonstration projects in order to gain insight, develop best practices, and utilize demand response strategies where appropriate going forward. Following the implementation of initial demonstration projects/program enhancements and related evaluation, PAs will use the results, along with related research and analysis, to guide the deployment of demand reduction initiatives at scale (see Order at 142). The PAs will develop additional demonstration projects as appropriate.

For this term, National Grid and Cape Light Compact received approval to implement demonstration projects, which these PAs intend to deploy consistent with the PA-specific timelines described below⁵ and the Department's directives. Eversource is committed to deploying demonstration projects during the 2016-2018 timeframe and currently is in the beginning stages of assessing potential demonstration projects. Eversource will provide an update to its PA-specific timeline with a more specific implementation schedule when available. Until is also in the beginning stages of assessing potential demonstration projects. Until will provide an update of its PA-specific timeline with a more specific implementation schedule when available. Until will assess the potential for cost-effective demand reduction demonstrations on a small scale. One area of interest for Until is energy storage/load shifting for its C&I customers.

⁴ In February 2016, DOER announced that it plans to allocate up to \$4.5 million for demand demonstration projects to help identify cost-effective demand opportunities over the next three years. The Program Administrators are eager to work with DOER to leverage this potential funding for demand reduction demonstration projects during the 2016-2018 term, with the anticipation of transitioning successful demonstration projects into programs in subsequent years. The PAs will hold discussions with DOER over the next few months regarding the requirements, process, and types of projects to needed to leverage this funding. The PAs will also continue to assess alternative funding sources and obtain any required approvals.

⁵ Please note that each PA may choose to continue, expand, or terminate their demonstration project based upon an assessment of the project. The PAs will update the initial timelines as appropriate.

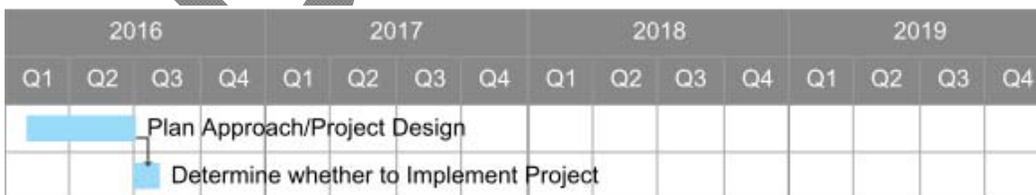
National Grid



Cape Light Compact

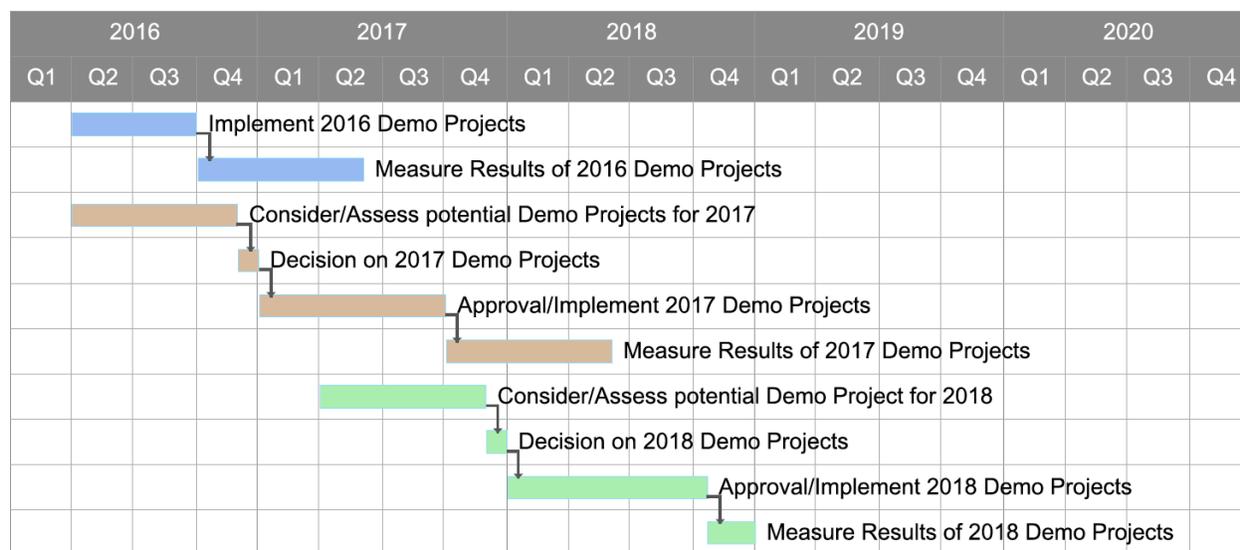


Eversource

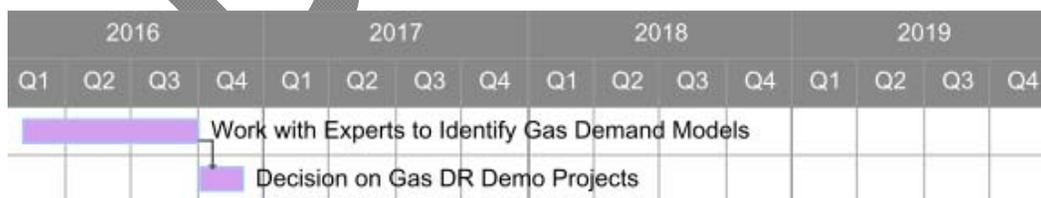


As discussed above, the PAs are continuing to assess and determine the appropriateness of additional demonstration projects and other program enhancements. Below is a generic timeline for the PAs to determine whether to implement additional demonstration projects or program enhancements in 2017 and 2018. The PAs note that this timeline is intended to serve as a general guide. PAs will continuously assess potential projects/enhancements and a PA may

develop and implement a demonstration project during a period not identified on the timeline (such as a winter demand initiative). Prior to deploying additional demonstration projects, the PAs will analyze the engineering feasibility and projected costs and benefits of potential demonstration projects. If a PA intends to implement a new demonstration project, the PA may seek Department approval. Consistent with the Department’s Order, all future demand response offerings, including demonstration projects, will be fully supported by, among other things, detailed program descriptions (Order at 142). As appropriate, the PAs will modify PA-specific timelines and share updates with the Demand Reduction Subcommittee.



Gas PAs continue to seek ideas for demand response projects that are consistent with the DSG goals and the GCA. Based on research and meetings with demand response program vendors, existing gas demand response programs appear to be predominantly designed for customers with dual fuel capabilities. The demand response models known to us at this time involve customers being switched from burning gas to an alternative fossil fuel, such as oil. The gas PAs do not intend to implement a demonstration project that increases the usage of non-gas fossil fuels. The gas PAs intend to continue meeting with demand response program vendors and experts to identify a gas demand model that does not burn fossil fuel. Below is a generic timeline for the gas PAs’ efforts for 2016. The gas PAs’ will update the timeline as appropriate.



Additional Information

The Program Administrators are committed to exploring the potential for cost-effective demand reduction programs in Massachusetts that provide value to their customers. Below is a brief summary of some work and initial lessons learned. The PAs, through the DSG, are still

exploring all opportunities and have not prioritized or eliminated any potential projects to date. As the group continues to assess opportunities, the Program Administrators anticipate focusing on particular potential projects that meet the goals set forth above.

Initial Milestones/Tasks Completed to Date

As shown in the timeline above, the PAs have already completed several important tasks and undertaken an enormous amount of work to begin to assess the complicated issues regarding developing successful, cost-effective demand reduction programs/projects.⁶ For example, PA staff has spent significant time analyzing, researching, and assessing the impacts on the transmission and distribution systems and the wholesale market. The PAs have examined geographic and temporal differences, analyzed seasonal differences (summer v. winter), determined coincidence of peak reduction of certain measures/strategies against ISO-NE and substation peaks, and examined historical ISO-NE data to identify trends and potential opportunities. This research and analysis will be essential as the PAs move forward and refine their approach to demand reduction programs/projects.

Based on the research discussed above and information learned through meetings with ISO-NE, the PAs have prepared a high-level summary of ways to participate and impact the wholesale energy and capacity markets (see Appendix). Bidding demand response projects into the market can make the project eligible for certain revenue; however, bidding does include financial risk. There are financial risks associated with not meeting your Capacity Supply Obligation (“CSO”), not performing during scarcity hours, and not accurately calculating your opportunity cost as part of participation in the energy markets. Additionally, current ISO-NE market rules require five minute telemetry in order for an active demand response resource to bid into the FCM. Currently, this would exclude the capacity savings bids from most residential participants. The PAs will continue to discuss alternative and creative approaches with members of the DSG for participating in the wholesale markets. Please see the Summary of the Wholesale Market in the Appendix for more detail.

With respect to engaging experts, the PAs have already met with various industry experts to obtain vital background information and recommendations for potential demand reduction program designs, including the following experts:

- Evaluators, such as Navigant, that have consulted with utilities in other jurisdictions or performed studies on the potential and/or cost-effectiveness of demand response to better understand the scope and applicability of the results to potential demand reduction projects;
- ISO-NE to discuss the potential cost and benefit impact and scale of demand reduction efforts in the energy and capacity markets;

⁶ Please see the Appendix for a list of studies the PAs have reviewed and a summary of some demand response programs from other jurisdictions.

- Demand response program vendors, such as EnerNOC, Comverge, and Weatherbug, that serve C&I and residential customers to discuss market trends, their experience, and program design and implementation challenges;
- Other jurisdictions’ utilities and regulators that implement demand response programs to discuss best practices and latest developments; and
- Internal utility experts specializing in system planning, energy supply, transmission planning, strategy, rates, and demand response implementation in other jurisdictions (e.g., Connecticut).

In the coming weeks, the PAs plan to schedule additional meetings to examine additional issues in depth. The PAs will provide updates on these meetings to the Demand Reduction Subcommittee and EEAC as appropriate.

The PAs have also released an Invitation for Qualifications (“IFQ”) to their existing evaluation vendors to ensure that approved demonstration projects can be evaluated in a timely manner. The IFQ will allow the PAs to select a qualified demand reduction evaluation vendor on a relatively short time frame. It should be noted that this is a short term solution intended to cover demand reduction activities undertaken in 2016 with an eye towards releasing an RFP in 2016-2017 that will cover longer term program activity.

Potential Benefits

The PAs are examining the potential benefits from demand reduction activities from several different system level perspectives. The PAs recognize that a reduction that may be immaterial at the wholesale level, could be very meaningful at the customer or distribution level. To ensure all benefits are fully assessed, the PAs are taking a holistic view of the potential benefits from demand reduction activities. Examples of potential benefits include reduce capacity costs, lower installed capacity requirements, lower allocation of capacity costs to Massachusetts ratepayers, the possibility of delaying/deferring distribution infrastructure upgrades, and reducing individual customer demand charges. These examples are not exhaustive and meant to be illustrative.

Summary of Initial Takeaways⁷

Based on conversations and meetings held by the PAs with the members of the DSG, it is clear that challenges to implementing demand response in Massachusetts may exist. Some of these challenges include: finding value in wholesale market participation, volatility and unpredictability of revenue streams, time lag associated with realizing other value streams, customer uptake in different customer classes, technology adoption, and variability in load due to weather. Despite these challenges, there may be opportunities for successful programs. This potential can be seen by taking a holistic view of the value streams to demand reduction projects

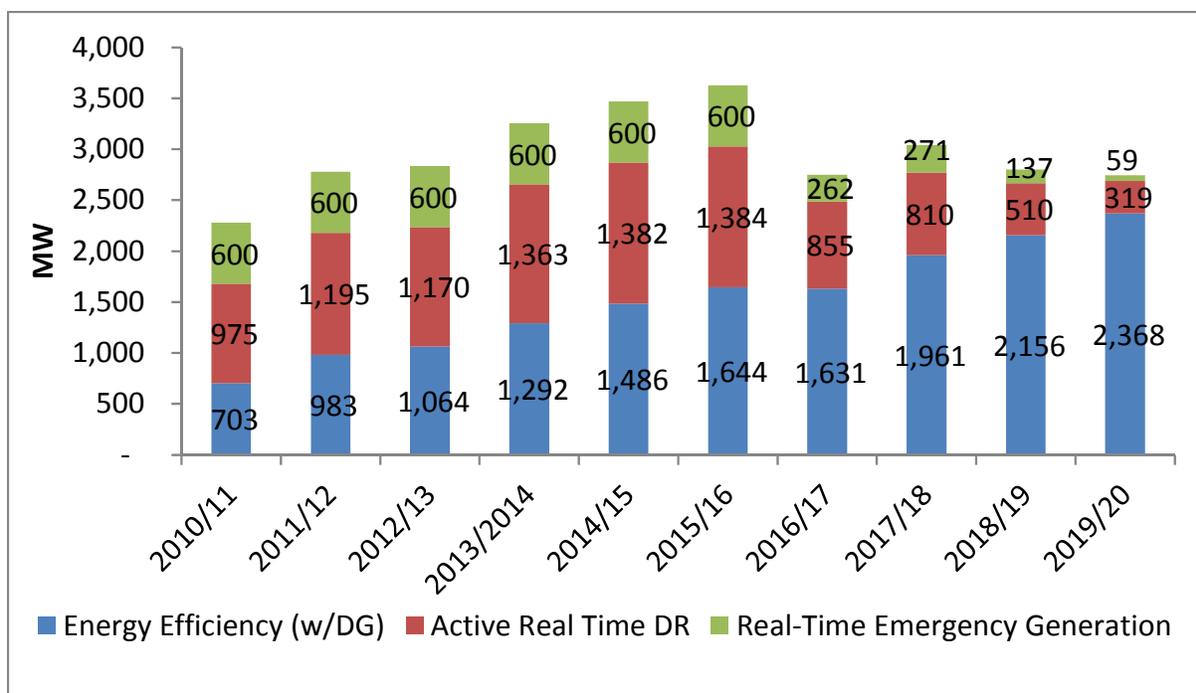
⁷ The purpose of this initial report is to provide the scope, tasks, and timeline for the Demand Savings Group. This report is not intended to be an analysis of all information and recommendations obtained to date. The PAs intend to provide updates periodically to the Demand Reduction Subcommittee.

(wholesale, distribution, retail, and customer levels) and leveraging unique opportunities available in Massachusetts. Successful demand programs exist, so the PAs do not need to “reinvent the wheel” but the PAs do need to identify the best strategies for Massachusetts customers that can be implemented cost-effectively. Various entities have stated that they are willing to work with the PAs and the members of the DSG to address challenges and assess opportunities.

The demand response program vendors have indicated that Massachusetts demand reduction programs likely will cost more and have lower benefits than other jurisdictions currently operating demand response programs. This is due in part to Massachusetts’ wholesale market, industry, building stock, and climate. There are several reasons for increased costs in Massachusetts. The set-up costs for demand response programs are relatively uniform but there is less discretionary load (mostly AC) in Massachusetts due to its climate. This means that there are increased customer acquisitions costs as customers with central ACs need to be sought out and there is also less savings potential per customer due to lower load. With similar costs from across the country and lower savings per customer, the projected programs would be relatively more expensive in Massachusetts on a per unit of savings basis. Also, Massachusetts does not have a substantial amount of low value add industry meaning that incentives may have to be higher than other parts of the country in order to convince customers to participate in a curtailment program. The same experts also indicated that customers view utilities as the energy experts and that, in the experts’ experiences, utility sponsored demand reduction programs generally have lower marketing costs. Integrating and leveraging aspects of the PAs’ energy efficiency programs and marketing may help yield additional benefits and lower costs. As discussed above, the same experts also indicated that successful programs in Massachusetts may be possible and they are willing to work with the PAs and the members of the DSG on identifying possible cost-effective approaches.

Trend in Active Demand Response in New England

The amount of active demand response participating in wholesale market has decreased over the years. The decreasing levels of active demand response likely have many causes including customer fatigue, changes in wholesale market rules, and economic forces. One issue to note with active demand response is the discrepancy between the Capacity Supply Obligation (“CSO”) that was awarded to demand response resources in the primary auction and the actual CSO of those resources during the CCP (discussed more in the Appendix). The graph below shows the breakdown of Capacity Supply Obligations taken by demand side resources in the primary auction of FCM starting in 2010/2011 through 2019/2020.



Compared to other jurisdictions, there is proportionally a lower amount of active demand response in the wholesale market (e.g., in PJM⁸ approximately six percent of the capacity cleared for 2018/2019 was active demand response, in ISO-NE approximately 0.9 percent of the capacity cleared for 2018/2019 was active demand response). This may be due to differences in wholesale market rules, customer profiles, and discretionary loads. There are different rules for participation in the PJM and ISO-NE wholesale markets, notably the requirement for real time telemetry in New England. The customer base in PJM likely includes more discretionary load opportunities due to proportion of buildings with central AC and larger industrial facilities. The PAs will research demand opportunities that may be suitable for the specific industries in Massachusetts.

Summer Peak

As ISO-NE explained in its meeting with the DSG, New England’s electric system has shifted from a winter peaking system to a summer peaking system over the years and the region experienced its highest summer peak in 2006. As a result, the summer likely offers significant potential for demand reduction opportunities.⁹

Currently, successful C&I programs are designed based on a particular customer’s discretionary load and the customer’s ability and willingness to shift load during these peak times. Most residential demand response programs focus on single family homes with central air conditioning (multi-family customers and buildings do participate in certain situations).

⁸ PJM serves Delaware, Maryland, New Jersey, Ohio, Pennsylvania, Virginia, West Virginia and parts of six additional states.

⁹ Residential peak usage is not necessarily coincident with system peak.

Massachusetts has a lower portion of residential customers with central air conditioning compared to many jurisdictions outside of New England, and therefore demand response programs may require more targeted marketing efforts. Demand response program vendors seek to leverage additional benefits by coupling air conditioning controls with other measures, such as dehumidifiers and pool pumps. There may be opportunities to bundle other measures and behavior strategies, along with aggregating customers into a single load control program that could maximize benefits. Specifically, the PAs will examine ways to leverage their energy efficiency infrastructure and delivery network and the Mass Save® brand to deploy cost-effective demand reduction programs. The PAs intend to continue to collaborate with LEAN and other stakeholders to evaluate the impact of potential strategies for low-income and other vulnerable customers.

Winter Peak

The PAs continue to examine the drivers of winter peak pricing at the wholesale and retail levels. Winter price spikes are not necessarily coincident with winter peak load. Price spikes can be the result of multiple factors (unanticipated transmission and generation disruptions, weather, scarcity of generation fuel, etc.) and the PAs continue to analyze the drivers.

As a result of some generator availability and performance issues during the winter of 2012/2013, ISO-NE created a winter reliability program. The program is designed to strengthen fuel adequacy when natural gas pipelines are constrained and generators have difficulty replenishing fuel supplies in the middle of winter.¹⁰ ISO-NE allows active demand response to bid into the winter reliability program. To participate, a project must demonstrate capability of incremental demand reductions above existing capacity supply obligation and must use non-gas alternatives.

There are less demand reduction opportunities in the winter compared to the summer due to less discretionary load, like central AC, but there still may be some opportunities. Currently, most winter active demand response programs rely on switching fuel sources to a non-natural gas alternative. There are also some small scale hot water heating programs. The PAs plan to review these programs and their applicability to Massachusetts.

Advanced Meters and Real Time Data

Some of the most successful demand response programs utilize advanced meters (“AMI”) and time of use rates (“TOU”). AMI and TOU are being considered in other proceedings before the Department and the PAs will continue to monitor the progress of those proceedings.

According to the experts that the PAs have met with, AMI and Time of Use rates may help with program design and targeting homes but are not necessary for demand response

¹⁰ <http://www.iso-ne.com/committees/key-projects/implemented/winter-2013-2014-reliability-solutions;>
[http://www.iso-ne.com/static-assets/documents/2015/09/final_gillespie_raab_sept2015.pdf.](http://www.iso-ne.com/static-assets/documents/2015/09/final_gillespie_raab_sept2015.pdf)

programs. There may be opportunities for demand response/reduction programs and other types of program enhancements that can help increase peak demand savings but do not require AMI or TOU. The PAs intend to assess these potential approaches and analyze how AMI and TOU can be integrated in the future.

The demand response program vendors have provided some insight on customer information sharing practices. Providing customers with an appropriate level of information is essential but program implementers should consider the potential for customer fatigue. The experts recommend providing C&I or residential customers participating in demand response programs after-the-fact savings information to show the benefits of participation.

Cost-Effectiveness and Time Lag

Current avoided costs are not designed to assess cost-effectiveness for demand initiatives. The PAs have worked regionally to expand the scope of work completed by the avoided cost study contractor in order to derive certain incremental values of demand response efforts. The AESC 2015 Addendum was completed in March 2016, and the PAs are reviewing the study results.

<i>Benefit Stream</i>	<i>Already Captured in TRC Benefit/Cost Tests</i>	<i>Understood Timing</i>
<i>Reduced ICR</i>	<i>No</i>	<i>3 years < t < 5 years</i>
<i>Capacity Price Suppression</i>	<i>Yes</i>	<i>3 years < t < 5 years</i>
<i>Reduced Cost Allocation</i>	<i>No</i>	<i>2 years < t</i>
<i>Energy Price Suppression</i>	<i>Yes</i>	<i>1 year < t</i>
<i>Reduced Transmission Cost</i>	<i>Yes</i>	<i>3 years < t</i>

It has been a common refrain, spoken most recently by Navigant in the “Peak Demand Reduction Strategy” prepared for Advanced Energy Economy, that demand response programs need to be evaluated over a longer horizon than is currently viewed in the energy efficiency programs. For instance, Navigant came up with a BCR that is above 3 by looking at the program over a ten-year horizon. Initial analysis suggests that California uses a 20-year horizon. It may take over five years for a demand response program to be cost effective.

All programs must be screened for cost-effectiveness under the Green Communities Act. The PAs plan to work in collaboration with the members of the DSG to review approaches to screening cost-effectiveness.

Conclusion and Next Steps

The PAs and the members of the DSG have already undertaken a significant amount of work and expect to remain actively engaged. Over the next quarter, the PAs with approved residential demonstration projects will begin to enroll customers and implement those projects. The PAs, collaborating with the members of the DSG, will solidify the Analytical Framework and begin to review and assess some recommended strategies and measures using the

framework. Please refer to the above timelines and the Appendix, for more detail on the PAs' next steps.

The PAs are committed to working collaboratively to assess the challenges and potential strategies to deploying successful, cost-effective demand reduction programs that provide benefits to all Massachusetts customers. The PAs anticipate continuing to bring the unique expertise, teamwork, and stakeholder collaboration from the nation-leading energy efficiency programs to this demand reduction effort. The PAs are confident that with a strategic and deliberate approach, we can achieve success as these efforts continue.

Appendices

- AESC 2015 Addendum
- Description of Milestones in Timeline
- List of Anticipated Timeline for Tasks and Demonstration Projects
- Summary of Demonstration Projects
- Summary of the Wholesale Market
- Draft Analytical Framework

DRAFT