

EEAC Resolution Concerning Its Priorities for the Development, Implementation, and Evaluation of the 2016-2018 Three-Year Energy Efficiency Plans

Adopted March 31, 2015

Part 1: Introduction

Under the Green Communities Act (“GCA”), the Energy Efficiency Advisory Council (“EEAC” or “Council”) is charged with reviewing the Massachusetts Program Administrators (“PAs”) energy efficiency investment plans and budgets, which are prepared in coordination with the EEAC. The EEAC has worked with, and will continue to collaborate with, the PAs to develop and deliver nation leading energy efficiency and demand reduction programs.

In this resolution, the EEAC again re-affirms its understanding that the GCA requires bold action to acquire all available cost effective energy efficiency and demand resources. In addition, the emission reduction targets established by the Global Warming Solutions Act (“GWSA”) and the Commonwealth’s Clean Energy and Climate Plan to implement the GWSA include a key role for energy efficiency and demand reduction programs. Given these statutory commitments, the economic and energy benefits that energy efficiency is providing to Massachusetts consumers, and the precedent that the PAs have established in leading the nation in developing comprehensive energy efficiency programs, the Council has great expectations for the development of a third balanced, cost-effective, robust, and innovative statewide electric and natural gas plan, inclusive of individual PA efficiency investment plans (i.e., “Three-Year Plans”).

This resolution articulates the EEAC’s priorities for program planning, analysis, implementation, and evaluation. It represents input from councilors, gathered through workshops and meetings. The Council also highlights for the PAs the importance of considering public comment and other stakeholder input. Developing the 2016-2018 Plans will be an iterative process between the Council, the PAs, and the EEAC’s Consultant, as well as interested stakeholders. The Council looks forward to continuing collaboration with the PAs and interested stakeholders to plan and implement creative, effective approaches that meet or exceed the intended impact of this resolution.

Part 2: Priorities

The Green Communities Act mandates the acquisition of “all available cost-effective energy efficiency”. The EEAC affirms this goal and, in striving to meet this statutory requirement, shall only approve 2016-2018 Plans that include savings that build on the achievement of the prior Three-Year Plans and conform with, and support the successful attainment of all available cost-effective energy efficiency.

The Council prioritizes continuous improvement in lifetime savings, benefits, and customer experience for the energy efficiency programs set forth in the 2016-2018 Plans, in order to ensure delivery of cost-effective programs that:

- Achieve all cost effective energy efficiency and demand reduction in accordance with the Green Communities Act.
- Align with the greenhouse gas reduction targets of the Global Warming Solutions Act and Clean Energy and Climate Plan.
- Deliver consistent and equitable service to all segments of businesses and residents statewide.
- Prioritize lifetime savings and benefits.
- Realize electric demand savings to significantly mitigate peak demand costs to the electric sector.
- Achieve data transparency and enable robust planning and analysis of the available energy efficiency resource through a comprehensive and detailed statewide database.
- Effectively communicate program and initiative successes, effectiveness, and progress to ratepayers.
- Continue to improve the cost efficiency of program delivery, with due regard for comprehensiveness, changes in avoided costs, and changes in technologies.

Part 3: Recommendations

Consistent with the priorities articulated above, the Council, PAs, and Council consultants conducted and participated in a collaborative planning process from December 2014 through March 2015. Seven workshops were held during which Voting and Non-voting councilors received briefing materials on prioritized topics, engaged in discussions, and developed the following informed recommendations for the PAs to consider when developing the 2016-2018 Plans. The Council appreciates that the cost-effectiveness, budgeting, and bill impact implications of each of these recommendations individually and in total will be considered by the PAs. The PAs shall provide updates to the Council on progress and implementation timeline of adopted recommendations as part of the PAs' quarterly reports. The Council looks forward to reviewing the draft 2016-2018 Plans and the PAs' written response to these recommendations, as well as to continuing collaborative discussions.

Cross-Cutting

1. The PAs, in coordination with the Council, shall develop a methodology and report accurate program penetration and participation numbers that are linked to individual account holders as opposed to participation in various programs.
2. The PAs shall support products and practices that reduce winter and summer peak demand by taking the following actions:
 - a. Design, implement, and evaluate a demand reduction or demand response offering in each PA's service territory.
 - b. Present to the EEAC a joint report with EEAC consultants on the impacts, opportunities and challenges of time varying rates on the energy efficiency programs, within 3 months of the Department's order approving such rates. Such report shall also include an analysis of incorporation of technologies like advanced metering in the efficiency programs, including potential adverse impacts on particular customer segments, such as low-income.
 - c. Support the EEAC consultants in investigating the potential impact on efficiency savings if the Council were to place more emphasis on demand savings or peak demand savings.
3. The PAs shall proactively promote efficient renewable thermal technologies.
 - a. Develop and implement a methodology in coordination with DOER and the EEAC Consultants to claim savings associated with the installation of renewable thermal equipment and fully account for savings associated with the reduction in use of the prior fuel source.
 - b. Provide rebates and incentives for renewable thermal technologies, where deemed appropriate and cost-effective at the program level pursuant to the above methodology, not later than Q3 2016.
 - c. Coordinate with the Massachusetts Clean Energy Center and DOER to provide information to customers and promote rebates and incentives for renewable thermal technologies.

Commercial & Industrial (C&I)

C&I Reporting

4. The PAs shall report on the following as separate initiatives within the C&I New Construction Program:
 - a. Upstream
 - b. End of life replacement
 - c. New Construction/Major Modifications
5. The PAs shall report on the following as separate initiatives within the C&I Retrofit Program:
 - d. Combined Heat and Power
 - e. Retrofit Programs
 - f. Control systems (including retro-commissioning, control upgrades, sub-metering and performance metrics)
 - g. Engagement programs (continuous energy improvement, strategic energy management, behavioral programs)

Segment Specific Approaches

6. The PAs shall continue to improve their delivery of efficiency services via C&I market segment specific approaches using the following strategies:
 - a. Provide more targeted communication materials to different market segments, explaining the benefits from, and availability of, energy savings opportunities to drive participation.
 - b. Improve of the Mass Save® website to provide these sector-specific materials, including PA-specific materials, such as marketing materials, case studies and educational opportunities.
 - c. Leverage partnerships with trade associations and other sector-specific partners to tailor efficiency program implementation to address sector-specific barriers and opportunities.
 - d. Inform the EEAC in semi-annual reports about sector specific approaches (e.g., municipal, health care, commercial real estate, education, non-profits, hospitality, mid-size and small C&I), including:
 - i. The impacts of sector specific strategies being implemented across the state.
 - ii. How the results of EM&V studies and market research are being incorporated in program design.

Commercial Real Estate

7. The PAs shall continue to improve the efficiency programs targeted to the commercial real estate sector through the following strategies.
 - a. Implement recommendations from Commercial Real Estate Working Group Roadmap, Massachusetts Commercial Real Estate Survey Analysis and Office Market profile report.
 - b. Expand the Sustainable Office Design program features, including streamlined review of incentives to technologies beyond lighting. Implement pre-packaged offerings to address multiple end-uses.
 - c. Use a whole building approach to target mid-size office buildings.
 - d. Leverage energy reporting and disclosure ordinances to identify commercial real estate participants and explore the use of low-cost, streamlined whole building audits to support multi-year engagements on energy efficiency with interested property managers.

- e. Explore market transformation opportunities, including updated advanced building operator training, sub-metering, wireless controls and better financing opportunities.
- f. Investigate the main drivers for commercial real estate energy efficiency investment opportunities.

Small Businesses

- 8. The PAs shall continue to improve their delivery of efficiency services to small businesses through the following strategies.
 - a. Provide deeper savings to each participating customer.
 - i. Expand the menu of prescriptive services to better advance natural gas energy efficiency opportunities and non-lighting electric measures;
 - ii. Use more comprehensive (e.g. integrated gas/electric) marketing programs for small businesses.
 - b. Increase participation in the program.
 - i. Use building analytics and benchmarking to target small business customers;
 - ii. Increase outreach and awareness programs;
 - iii. Continue to work with trade groups and associations.
 - c. Continue to customize services based upon customer size and type.
 - i. Investigate the potential for varied program implementation approaches to better serve the various strata of Small Business customers.
 - ii. Determine which implementation strategies, technologies and building diagnostic capabilities employed in other programs are transferable and effective for serving Small Business customers.
 - iii. Explore a Home Energy Services-type approach for the smallest business customers.

Combined Heat and Power

- 9. The PAs shall increase the overall number of Combined Heat and Power (CHP) installations.
 - a. Provide additional education and outreach on CHP technology, including cost-effectiveness and other implementation barriers.
 - b. Deliver a report on CHP by the end of 2016 that:
 - i. Provides a statewide, bottom-up analysis of potential for custom, pre-packaged and third-party CHP projects;
 - ii. Identifies technical, policy, financial, legislative, and market barriers and potential solutions, including, but not limited to, custom, pre-packaged and third-party CHP;
 - iii. Determines the costs and feasibility of the PAs' implementing the identified solutions;
 - iv. Investigates the challenges for installing CHP systems posed by natural gas availability and volatility in fuel prices, and potential programmatic approaches to mitigating those risks; and
 - v. Assesses the interconnection challenges in area networks and how these challenges have been addressed in other cities, states or countries.
 - c. Implement cost effective CHP program enhancements according to the findings of the report.

Continuous Technology Improvements

10. Given the importance of ongoing research and development of energy efficiency technologies, the Council recommends the PAs fully utilize all pilot funds.
11. The PAs shall develop a piloting or demonstration process and guidelines to facilitate and incentivize a more rapid and nimble adoption of emerging technologies, products, services, and strategies that enable energy efficiency savings. To that end, the PAs shall:
 - a. Assess products that reflect rapid innovations in the marketplace, are of high customer interest, and/or have dependence on the customer for persistent savings (not limited to: data analytics, advances in sub metering, and advanced controls). As appropriate, adopt these measures into the C&I Programs.
 - b. Examine combinations of products, services and strategies that enable energy efficiency savings or measurement of savings to assess their effectiveness.
 - c. Report to the EEAC semi-annually on program selection, design, key performance indicators, and results.
 - d. Complement the existing Massachusetts Technical Assessment Committee (MTAC). However, unlike the MTAC, the PAs will take the lead to identify and pilot these new technologies, services, and strategies.

Retro-Commissioning, Building Controls and Sub-metering

12. The PAs shall increase participation in retro-commissioning, building controls and sub-metering initiatives by enhancing the current offerings and incentives.
 - a. Use data analytics and benchmarking processes to identify ideal retro-commissioning candidate projects.
 - b. Promote continuous commissioning projects for retrofit and new construction projects by changing incentive structure to promote program participation, offering appropriate incentives, sponsoring new technologies, and training system operators.
 - c. Where appropriate, incentivize the replacement of legacy building controls and open architecture in control systems to facilitate simpler system upgrading.
 - d. Educate customers and vendors about new technologies and education opportunities, including regularly posting webinars, case studies, and videos on the Mass Save® website.
 - e. Update and expand building operator training offerings, with input from customers, and explore the impact of combining these trainings with peer-to-peer based group learning.
 - f. Expand training to increase the number of vendors who provide retro-commissioning and building controls in the marketplace.

Behavioral and Engagement

13. In recognition of the significance of C&I customer behavior on energy efficiency, the PAs shall:
 - a. Deliver a report by the end of 2016 on Strategic Energy Management (SEM)/ Continuous Energy Improvement (CEI) programs for large commercial and industrial customers that:
 - i. Researches SEM/ CEI programs to determine their applicability, cost effectiveness, and feasibility of implementation in Massachusetts;
 - ii. Evaluates the potential savings from SEM/CEI programs;

- iii. Develops guidelines for how energy savings from SEM/CEI programs can cost-effectively be measured and verified; and
 - iv. Explores leveraging such programs for dispatchable load control.
 - b. Based on the reports, if appropriate, implement SEM/CEI with large commercial and industrial customers, including providing technical assistance to identify opportunities and/or project management support for implementation.
 - c. Deliver a report by the end of 2016 on behavioral programs for small and mid-size commercial customers that:
 - i. Investigates successful commercial behavioral programs to determine the critical elements for success and their cost-effectiveness;
 - ii. Evaluates the potential savings from commercial behavioral programs;
 - iii. Develops guidelines for how energy savings from commercial behavioral programs can cost-effectively be measured and verified; and
 - iv. Explores leveraging such programs for dispatchable load control.
 - d. Assess and, if appropriate, implement upfront incentives for building operators and owners for behavior-based and operational savings, building operator training around behavioral strategies, and support for peer-to-peer cohorts.

LED Streetlights

14. The PAs shall:

- a. Retrofit the majority of utility-owned street lights with LED technology statewide by 2018 and create a plan to retrofit the remainder by 2020, or sooner if possible.
- b. Work with municipalities to retrofit the remainder of municipally-owned street lights to LED technology by 2018.
- c. Enable and incentivize advanced controls for LED street lights for both municipally and utility-owned street lights.

Delivered Fuels and Thermal Efficiency

15. The PAs shall promote non-gas customers' ability to self-fund the thermal portion of a comprehensive energy assessment using a PA auditor.

Hockey Stick Pattern

16. To address the uneven distribution of C&I savings occurring primarily at the end of the calendar year, the PAs shall:

- a. Improve C&I pipeline forecasting and reporting to the Council to increase visibility and predictability.
- b. Avoid offering incentives that create inequities or unintended consequences of delay and deferral.

Net Zero Energy Ready Buildings

17. The PAs shall assess offering a tier within the C&I New Construction initiative to enable net zero energy readiness.

Residential

New Initiatives

18. The PAs shall develop and implement by Q2 2016, a moderate income specific initiative designed to increase participation from this specific customer sector.
 - a. Assess and determine appropriate population (within the 60-120% Area Median Income range) to serve and ensure that there is continuity with the low-income programs.
 - b. Consider proxy means of income qualification (e.g. by zip code, rent costs), with protocols to assure that households eligible for low-income services are referred to the low-income programs.
 - c. Develop and leverage partnerships with community groups to help with marketing and education, and coordinate with municipal efforts, that yield savings.
19. The PAs shall develop and implement by Q2 2016, a separate renter specific initiative, designed to address the split incentive and increase participation from this specific customer sector.
 - a. Develop and leverage partnerships with community groups to help with marketing and education and coordinate with municipal efforts and/or consider alternative program models to better serve renters.

Home Energy Services Initiative

20. The PAs shall achieve deeper savings per household in the Home Energy Services (HES) Initiative through the following strategies.
 - a. Increase the closure rate for weatherization jobs:
 - i. Assess why home energy assessments are not resulting in installation of recommended weatherization
 - ii. As soon as practicable, use findings to implement changes to increase the close rate
 - iii. Report findings and progress in the quarterly reports to the EEAC.
 - b. Assess the potential impacts of adjusting the insulation incentive, including maximum dollar value and percentage, and consider eliminating the cap on these incentives. Assess offering different tiers for market rate vs. moderate income households, while allowing for broad awareness marketing.
 - c. Provide customized approaches, technical assistance, and offerings to specific customer types/segments (e.g., homes doing remodeling work, high energy users and electric heat resistance customers).
 - d. Track all measures implemented at the household level where technically feasible to provide the Council with more comprehensive information on the penetration rates, and the depth of savings achieved when multiple measures are implemented.
 - e. Continue to create incentives for lead vendors, Home Performance Contractors (HPCs), and contractors to achieve overall savings targets through a whole building approach.
 - f. Reassess the structure of the Best Practices Working Group to ensure HPCs have an equitable role in decisions.
 - g. Integrate renewable thermal technologies into the HES delivery model, building on the success of the early boiler/early furnace replacement offering.
21. The PAs shall optimize the effectiveness of the Home Energy Assessment (HEA) and the HEA delivery channel.

- a. Improve the integrated “one-stop shop” customer experience:
 - i. Provide the customer with comprehensive information about Mass Save[®], state and federal incentives for HVAC, hot water, and renewable thermal technologies, regardless of the customer’s existing fuel source.
 - ii. Direct lead vendors and HPCs to provide customers with comprehensive HVAC/hot water and renewable thermal technology options, regardless of the customer’s fuel source, when recommendations to upgrade are made.
- b. Identify, assess, and, where appropriate, implement ways to streamline and better customize the offer and information presented at the HEA through strategies such as pre-screening customers and additional customer follow-up protocols.
- c. By Q1 2016, collaborate with DOER and EEAC Consultants on a report that:
 - a. Identifies actions needed to provide customers with an asset-based “home energy scorecard”, similar to the one implemented in the Home MPG initiative and;
 - b. Quantifies costs and benefits associated with providing customers with such a scorecard.

Products Program

22. The PAs shall fully incorporate LEDs in both the Products and Whole House programs, and phase out CFLs, as follows:
- a. As soon as pricing allows, and no later than Q4 2016, offer only LEDs in the Whole House program and specialty lighting in the Products program.
 - b. As part of ongoing assessment activities conducted in conjunction with EEAC consultants, progress towards providing only LEDs for general lighting in the Products program, and report on such assessments and progress in the quarterly reports to the EEAC.
 - c. To support and maintain Massachusetts’ position as a leader in accelerating the adoption and installation of new technologies and practices, the PAs, in conjunction with the EEAC consultants, shall assess upstream program designs for HVAC and DHW-related technologies no later than Q3 2016.

HEAT loan/financing

23. The PAs shall, by Q2 2016, evaluate the following proposed changes to the HEAT loan program. The PAs shall report findings to the EEAC no later than Q2 2016:
- a. Provide low interest (e.g. 2%) loans for market rate customers, and maintain 0% for moderate income customers.
 - b. PAs fund a loan loss reserve for moderate income customers and customers with marginal (e.g. 600-650) credit scores.
24. The PAs shall coordinate with DOER to expand the HEAT loan-eligible measures to include those currently funded by DOER under the Expanded HEAT Loan program.
25. The PAs shall identify and implement appropriate ways to simplify and accelerate the HEAT Loan application and approval process.

New Construction Initiative

26. The PAs shall enhance the New Construction Initiative:

- a. By Q1 2016, implement a “renewable ready” requirement in the highest two performance-based tiers and the top prescriptive incentive tier.
- b. By Q2 2016, deliver a report to the EEAC that assesses:
 - i. Creating a Zero Net Energy (ZNE) incentive top performance tier.
 - ii. Adding a performance path for multi-family housing (4+ stories).
 - iii. Increasing incentives for rental housing new construction as a way of mitigating rental split-incentives.

Behavior Initiative

27. The PAs shall expand savings from behavior programs and explore the incorporation of home automation technology into their behavior initiative and report to the EEAC on the results of their findings.

Multi-Family Retrofit Initiative

28. The PAs shall increase savings from, and improve the customer experience in, the multi-family retrofit initiative:

- a. Provide weatherization incentives and HVAC and hot water equipment rebates to multi-family buildings that heat with unregulated fuels (e.g., oil or propane) to the same extent provided to gas or electric resistance-heated multi-family buildings.
- b. By Q2 2016, for buildings that benchmark, use benchmarking to:
 - i. Institute or demonstrate a “pay for performance” approach to retrofits using pre- and post-retrofit baselines for evaluation.
 - ii. Customize incentives to facilitate participation and deeper savings per building.
- c. By Q2 2016, develop and implement a plan or initiative for benchmarking in the multi-family sector.
- d. Seamlessly deliver services, rebates and incentives to the customer, regardless of whether such services, rebates or incentives are supported by the commercial or residential program.
 - i. Provide customers with a single point of contact to act as a project manager offering whole building services for both residential and commercially metered buildings, including overseeing energy efficiency installations and coordinating with the PAs and their vendors.
 - ii. For each building, link all services, rebates and incentives provided, regardless of whether such services, rebates or incentives are supported by the commercial or residential program, to provide a comprehensive view of commercially- and residentially-metered energy use and savings.
 - iii. For each building, track and report both commercially-metered energy use and savings, and residentially-metered energy use and savings.
- e. Segment the sector (e.g. according to ownership patterns, building types, or meter configurations) and implement tailored approaches to facilitate increased participation and savings per building within such segments.
- f. Prioritize comprehensive whole building based performance.
- g. By Q2 2016, implement an initiative, in partnership with housing finance institutions, to integrate efficiency work into opportunities such as refinancing or retrofitting of larger multi-family buildings.

Low Income Programs

29. The Low Income Energy Affordability Network (LEAN) shall expand their eligible scope of services:
- a. Provide weatherization, HVAC, and hot water technology services to low income multi-family buildings that heat with unregulated fuels (e.g., oil or propane).
 - b. Define low-income multi-family buildings as those with at least 50% of tenants earning up to 80% of Area Median Income (AMI).
 - c. Assess and report to the Council on expanding 1-4 family program to serve customers up to 80% AMI.
 - d. Evaluate and, if appropriate, serve non-profit organizations that primarily serve low income customers, provided that:
 - i. Such services are clearly defined, and synched with Mass Save® C&I sector non-profit initiatives;
 - ii. There is adequate funding such that providing such services does not reduce services to pre-existing LEAN markets or exacerbate the low income residential program queue;
 - iii. The PAs and LEAN report annually to the EEAC on which non-profits are served, what services are provided, and the cost per building.