

Memo

To: **EEAC**
From: **Eric Belliveau and the EEAC Consultant Team**
Date: **February 10, 2020**
Subject: **2019 Q4 Consultant Team Summary Report**

The Consultant Team is pleased to provide a summary to the Council of our activities.

This report serves as a summary of key activities, accomplishments, and deliverables completed by the Consultant Team during the 2019 Q4 timeframe (October-December).

SUMMARY OF MAIN TASKS COVERED IN EACH SECTION OF THE REPORT

EM&V

- Moving several new studies through the final planning process and into the implementation stage
- Advancing roughly 45 studies in the implementation stage
- Engaging with DOER on issues regarding individual studies
- Managing process of posting completed EM&V studies on the Council's website

PLANNING & ANALYSIS

- Reviewing Q3 2019, and KPI Results
- Reviewing 2016-2018 Term Report results and developing a memo for the Council
- Participating in ongoing discussions with ISO New England's Energy Efficiency Forecast Working Group and FCM Forecasting Group
- Reviewing PA Demand Demonstration projects
- Participating in ongoing strategic planning discussions

RESIDENTIAL AND LOW INCOME

- Developing a white paper, "[Mass Save 2019 Residential Program Review: Opportunities and Recommendations for 2020 and Beyond](#)"
- Reviewing residential Key Performance Indicator data
- Discussing progress on implementing Plan commitments with the Residential Management Committee
- Reviewing and commenting on draft residential EM&V work products and ongoing coordination with EM&V Advisory Group members

COMMERCIAL AND INDUSTRIAL

- Reviewing and refining C&I Key Performance Indicators
- Continuing to collect information on how the PAs are implementing Energy Optimization for C&I customers
- Participating in the redesign of the new construction program focused on EUI performance
- Initiating discussions between CIMC and EMC to review Energy Management System baseline issues
- Participating in Mass Save Energy Efficiency Workforce Development Needs Assessment working group
- Identifying several opportunities that could increase savings and overall program performance in Q4

TECHNICAL SERVICES

- Continuing regular administrative functions, including EEAC meeting minutes and website maintenance and document uploads

EVALUATION, MEASUREMENT & VERIFICATION

Oversee EM&V Planning

During Q4 the EM&V Advisory Group worked with the PAs to move several new studies through the final planning process and into the implementation stage, including a major C&I on-site study, a key update to the C&I lighting market model, a baseline study of new construction practices in cannabis growing facilities, and two fast track studies intended to refine estimates of residential lighting savings in 2019.

Oversee EM&V Implementation

Roughly 45 studies were in the implementation stage during the course of Q4. These included a mix of studies laid out in the Strategic Evaluation Plan or called for by the term sheets, evaluations of 2019 ADR efforts, impact evaluations intended to support the 2019 Plan Year Report (PYR), and process evaluations intended to support program implementation efforts. Many of these studies are scheduled to wrap up in Q1 of 2020, in time to be included in the PYR. A comprehensive status report on the current status of the Massachusetts EM&V program can be found at <http://ma-eeac.org/studies/>.

Oversee EM&V Reporting

Q4 fell between two peak periods of EM&V reporting, the first occurring in Q3 in connection with a wave of studies timed for inclusion in the 2016-2018 Term-Year filing, and the second expected to occur in Q1 of 2020 in connection with a wave of studies timed for inclusion in the 2019 PYR. As a result, only a handful of reports were finalized in Q4. However, Q1 of 2020 is expected to be a peak EM&V reporting period, as roughly 35 studies wrap up in time to be included in the 2019 PYR.

Council and Stakeholder Engagement

During Q4, the EM&V Group engaged with DOER through monthly overall check-in calls and discussions on issues regarding individual studies, and also managed the process of posting completed EM&V studies on the Council's website.

PLANNING AND ANALYSIS

Participate in EEAC Meetings; Brief and Support the Council

In Q4, the P&A Advisory Group prepared for, attended, and provided technical support during the meetings of the EEAC and coordinated through Executive Committee each month. The Group coordinated with DOER as chair of the Council on a weekly basis and briefed individual Councilors in advance of the EEAC meetings and as needed during the periods between meetings. Also, the P&A Advisory Group assisted with the development, planning, and coordination of potential topics for future EEAC meetings. EEAC Meeting and Council support is an on-going and regular monthly task area.

In Q4, the P&A Group also supported the Council in developing priorities for 2020.

Provide Technical Analysis

In Q4, the Planning and Analysis Group continued reviewing the results of the 2016-2018 Term report and the PAs' Q3 report and associated KPI data. The Group had previously developed a presentation for the August EEAC meeting on our findings for the 2016-2018 Term. In Q4, the Group developed a memo that summarized the information provided in the presentation as well as lessons learned from the 2019-2021 planning process. This memo will serve as a leave-behind for the Council and will inform the next Three-Year Plan.

Other Q4 tasks included, participating in ongoing discussions with ISO New England's Energy Efficiency Forecast and better understanding the results of the demand demonstration projects.

RESIDENTIAL AND LOW INCOME SECTORS

Planning, Technical, Analytical, and Strategic Support for Implementation of the 2019-2021 Plan

The major focus of the Residential Advisory Group in Q4 was the development of a white paper, "[Mass Save 2019 Residential Program Review: Opportunities and Recommendations for 2020 and Beyond](#)". The paper provides an overview of the PAs' work to date under the 2019-2021 Plan, examines how it relates to the vision our team articulated in 2017 during the 2019-2021 planning process, provides recommendations regarding remaining opportunities to more fully realize that vision in 2020 and beyond, and includes suggested metrics for how success can be measured. This paper provides the foundation for our 2020 work plan. We are discussing with DOER the best forum and timing for presenting and discussing this work with the EEAC.

The Group continued its regular discussions with representatives from the PAs and MAPC regarding development of the PAs' Municipal and Community Partnership Strategy. The Group's Income Eligible Sector work included meetings with LEAN to review program progress and discuss new measure screening, creation of an Income Eligible Services program process map to layout general program process and review with LEAN, and attending the quarterly Low Income Best Practices Working Group meeting. The Group also provided input and reviewed various work products of the Massachusetts Workforce Development Needs Assessment Report commissioned by the PAs.

The Group also reviewed the PAs' Q3 report and data dashboards for this period, compiled a list of data quality questions and concerns for the KPI data, contributed to a Consultant team memorandum analyzing the 2016-2018 Term Report, conducted 2020 work planning, met regularly with DOER staff, and provided support to Councilors on an as needed basis.

Participate in Residential Management (RMC) and Council Meetings

In Q4, the Residential Advisory Group contributed to several Consultant team presentations to the EEAC, including 2020 priorities, Q3 KPIs, and lessons learned from the 2019-2021 planning process, as well as participated in Councilor briefings and reviewed and commented on draft PA presentations on demand reduction and Cape Light Compact's Cape and Vineyard Electrification Offering.

The Group prepared for and participated in five RMC meetings in Q4, which included the discussions of the following topics:

- PA plans for and the status of Residential Coordinated Delivery revisions for attached low rise and high rise
- The potential for increasing contractor and customer uptake of HVAC Check and duct sealing measures, opportunities the Consultants identified through review of the PAs' Q1-Q2 KPI data. The Consultants followed up in early November with written summaries of opportunities to enhance these offers. The PAs indicated they are bringing on new vendors covering these implementation areas and would like them to assess what we have provided.
- Residential-related content in the PAs' draft presentations on demand and new technologies for the November EEAC meeting
- Research commissioned by the PAs to support increasing savings and participation by limited English proficiency customers
- Residential and income eligible measure-level KPI data from Q3. In the course of the discussion it became evident that the data were not accurate and could not provide the basis for any substantive discussion.

Coordinate with EM&V Efforts and Incorporate Feedback from EM&V Studies into the Programs

In Q4, the Group continued its monthly coordinating calls with the EM&V Advisory Group to exchange information and discuss priority evaluation issues and implications for implementation. It also reviewed and

provided comments on drafts of several in-progress residential evaluation outputs, including on Passive House; lighting delta watts, lighting sales market share, and lighting sunset year assumptions; new construction baseline, code, and stretch code materials; Residential Coordinated Delivery logic model; residential nonparticipant study; purchase of HARDI data for HVAC equipment sales in Massachusetts; and market effects for heat pump integrated controls.

COMMERCIAL AND INDUSTRIAL SECTOR

Technical support for program strategies and segmentation

The C&I Advisory Group provided program support in several ways during Q4 quarter of 2019, in addition to normal program and savings monitoring, and EEAC support. These included:

- Continued to collect information on how the PAs are implementing Energy Optimization for C&I customers including a deep dive conversation between MassCEC and CIMC chairs
- Finalized formatting for the Key Performance Indicators data from the PAs concerning lighting controls, small business comprehensiveness, and custom HVAC projects; conducted trend analysis where possible and identified PA reporting errors that prevent trending
- Participated in the redesign of the new construction program focused on EUI performance
- Initiated discussions between CIMC and EMC to review issues related to Energy Management System baselines
- Review of new technologies reviewed by MTAC for C&I programs
- Participated in Mass Save Energy Efficiency Workforce Development Needs Assessment working group
- Discussed the effectiveness of the Eversource Customer Engagement Platform (CEP).
- Reviewed materials performed research and analysis, and shared comments regarding: ESPO, SEM/CEI, stranded lighting savings, Illuminate Mass, lighting strategy, energy/lighting as a service.

Identify and Review New Technologies

The C&I Advisory Group identified several opportunities that could increase savings and overall program performance in Q4. These include a packaged air-to-water heat pumps, HVAC controls and optimization measures, new integrated lighting controls measures and non-lighting savings opportunities for indoor cannabis cultivators. The Consultants also worked on review of appropriate baselines for energy optimization measures.

Coordinate with EM&V Efforts and Incorporate Feedback from EM&V Studies into the Programs

There was a significant amount of activity in the EM&V area during the Q4 timeframe. The C&I Advisory Group reviewed and provided feedback on several studies, including review of evaluation studies on custom electric projects, cannabis ISP study, new construction baselines, and Energy Management Systems. In addition, the consultants reviewed workplans for planned studies on SEM and participated in the monthly Baseline Advisory Group (BAG) calls.

Participate in CIMC and Council Meetings

The purpose of these meetings is to gather relevant program information and to share best practices from other states and countries. The C&I Advisory Group has discussed the following topics with the PAs at the CIMC meetings and Informa calls with CIMC co-chairs:

- Reviewed the draft of Future of C&I Lighting Paper, findings and analysis with CIMC staff to allow for PA input
- Pathways for customers to implement HVAC controls through Energy Management Systems, unitary controls, and custom controls optimization strategies
- An overview new, promising C&I technologies currently being reviewed by MTAC and technologies that were reviewed by MTAC in the past that are currently contributing savings to the portfolio (Ex – advanced RTU controls, pump coatings, ice rink water treatment systems)
- Review of KPI trend analysis through Q3 2019, identifying relevant trends and potential data quality issues which were subsequently revised by the PAs
- Energy Optimization framework, benefits and incentives for C&I customers
- Challenges with Energy Management System baselines and controls measures

TECHNICAL SERVICES

Produce Minutes from all EEAC Meetings

The Consultant Team is charged with producing draft and final meeting minutes for each EEAC monthly meeting. The Team produced draft minutes for the September, October, and November EEAC meetings and forwarded them to the EEAC Chair. These minutes along with all documents and presentations distributed at the October-December meetings have been posted on the EEAC website.

EEAC Website Upgrades, Revisions & Maintenance

Consultant Team staff continue to manage the updated website on a day-to-day basis. In October-December this included posting materials for EEAC meetings and other meetings that occurred during the month.

For the October-December time period, there were:

- 3,693 sessions
- 1,825 users: 75% new visitors and 25% returning visitors
- 9,813 page views with an average of 2.7 page views per session

Consultant Team Quarterly Reports

In October, the Consultant Team produced a report of its activities from April 1, 2019 to September 30, 2019.