

Memo



→ CONSULTANT TEAM

To: **Energy Efficiency Advisory Council**
From: **Eric Belliveau and the Consultant Team**
Date: **February 22, 2021**
Subject: **EEAC Consultant Team 2020 Fourth Quarter Report**

SUMMARY

This document summarizes the work completed by the EEAC Consultant Team during the fourth quarter of 2020. In each section below, the Consultants provide details on the status of key work areas undertaken during Q4. As in the past, our report is organized by advisory groups, representing the major areas of effort across the entire range of Consultant responsibilities and portfolio of Program Administrator (PA) programs. Within each advisory group section of the report, we describe specific tasks the Consultant Team completed in Q4 that did not have a distinct deliverable associated. In Q4, the Consultant Team spent a significant amount of time preparing for the 2022-2024 three-year planning process. Because this process involves all Advisory Groups of the EEAC Consultant Team, we've included a specific Three-Year Planning section to this report. We also provide a table at the end of the document that lists the known deliverables the Team produced over the quarter.

THREE-YEAR PLANNING

The table below summarizes the three-year planning process activities and deliverables that occurred in Q4 of 2020. All advisory groups were involved in these efforts to some extent. Many of these tasks will be on-going in 2021. The majority of our three-year planning work in Q4 was focused on preparing for and participating in the Council workshops that began in November. In particular, the Consultant Team worked with DOER and the Executive Committee to determine the topics for the planning process workshops and prepared briefing materials for the workshops. The strategic planning process also continued in parallel.

| Activity/Milestone | Task | Timeframe | Information Needed | Status |
|---|---|-------------------|---|--|
| Planning Workshop Briefing Documents | <p>Research and analysis of several topics relevant to 2020-2021 planning:</p> <ul style="list-style-type: none"> • Active demand • New construction • Existing buildings • Workforce development • Equity | Jul-Feb 2020-2021 | <ul style="list-style-type: none"> • PA contribution to briefing documents in advance of the workshops • Accurate KPI data • Additional information determined when workshop topics have been solidified | <p>Worked with DOER and Executive Committee to prioritize topics for workshop briefing documents</p> <p>Compiled information and used for developing briefing document content.</p> <p>Worked with DOER to revise workshop recommendations based on Councilor feedback</p> |
| Planning Workshops | Assist the facilitator by adding to the workshop summary content | Jul-Feb 2020-2021 | | <p>Coordinated with DOER and Executive Committee on workshop schedule, topics, and format</p> <p>Planning workshops began in Q4 on 11/5/2020</p> <p>Presented provisional workshop recommendations to council</p> <p>Reviewed workshop summaries, responded to councilor input/comments, and suggested edits</p> |
| Review of PA Potential Studies | Consultant Team review and assessment of results of PA potential studies | Jul-Jan 2020-2021 | <ul style="list-style-type: none"> • Potential study measure lists • Scenario definitions including BAU+ across contractors • Draft results and draft reports when available | Draft reports were expected in January 2021. As of the date of this report, draft results have been received from National Grid and Eversource. |

PLANNING & ANALYSIS

In Q4, the Planning and Analysis Advisory Group focused much of its efforts on gearing up for the 2022-2024 planning process. This included working with the PAs and DOER on strategic planning topics, participating in strategic planning discussions and work groups, developing inputs for the Consultant Team assessment of Potential, and providing input on and reviewing the on-going 2021 AESC avoided cost study. These tasks are summarized in the table below:

| Time Period | Meeting | Topic(s) | Task | Information Needed | Status |
|--------------------|------------------------------------|--|---|---|--|
| October | October 21 EEAC Meeting | 2022-2024 Three-Year Planning Kick-off; C&I program updates | Review and provide feedback on PA draft presentations; brief Councilors | Draft PA presentations | Complete |
| November | November 18 December Meeting | New Savings Opportunities, Active Demand Management, Q3 2020 Report | Review and provide feedback on PA draft presentations; brief Councilors | Draft PA presentations | Complete |
| December | December EEAC Meeting | TBD | Review and provide feedback on PA draft presentations; brief Councilors | Draft PA presentations | This meeting was cancelled |
| On-going Q4 | N/A | Strategic planning for 2022-2024 Plan | Work with DOER and PAs to prioritize strategic planning items and determine next steps. Participate in strategic planning meetings with PAs, DOER, AGO, LEAN | Responses from PAs to analysis and proposals presented at prior strategic planning meetings | Engaged in strategic planning discussions with PAs, DOER, Attorney General's Office (AGO), and LEAN. Attended meetings of several work groups. This work will continue in 2021. |
| | N/A | Assessment of Potential | Develop an estimate of the achievable potential in MA over the next three years | | Developed draft assessment of potential using a recently completed potential study in RI as a starting point and made adjustments to account for known differences in the efficiency markets in MA and to reflect achievable |

| | | | | | |
|--|-----|---|--|---|--|
| | | | | | potential possible with best practice program design. This analysis will be updated when we receive the PA potential studies in Q1 2021. |
| | N/A | AESC 2021 (regional avoided cost study) | Continue input for AESC study, review and comment on draft deliverables, and participate in AESC study group meetings. Brief DOER and AGO. | | This AESC study is ongoing (initial draft expected on Feb. 26 and final draft planned for March 15). All input and review tasks in Q4 were completed. This work will continue in Q1 2021. |
| | N/A | Heat pump cost-effectiveness analysis | Assess potential impacts of changes to avoided costs, project costs, and other inputs on cost-effectiveness of heat pumps; assess heat pump cost effectiveness from TRC, utility, and participant perspectives | PA comments on initial analysis, including customer energy rates. | Added additional measures to analysis and revised avoided costs based on latest preliminary values from AESC study, and other inputs. Updated the participant economics analysis based on pricing data from PAs. This work will continue in Q1 2021. |

ACTIVE DEMAND

In Q4, the active demand advisory group developed initial planning estimates for ADM and storage opportunities in 2022-2024, based partly on the field experience for summer and winter 2020 ADM and the 2019-2021 Plan, prepared for and presented during the November 5 planning workshop on ADM (also reported above), planned for and presented with the PAs on ADM and storage at the November EEAC meeting, reviewed the DPU orders on gas ADM and PA gas ADM proposals in their rate cases, and coordinated with the PAs on next steps on gas ADM and winter ADM.

| Time Period | Meeting | Topic(s) | Task | Information Needed | Status |
|-------------|---------|---|---|--------------------|--|
| October | N/A | Planning and preparation for ADM and storage topic for planning | Develop initial planning estimates for ADM and storage opportunities in | | Completed initial planning and briefing document for ADM workshop topic on |

| | | | | | |
|--------------------|--|---|--|---|---|
| | | workshop #1 on November 5. | 2022-2024 for planning workshop. Develop ADM briefing document for workshop. | | November 5 (also see workshop planning activities reported above). Developed initial estimates of ADM for 2022-2024 Plan. |
| | N/A | Planning and preparation for an ADM update to the EEAC in November 2020 | Engage the Demand Reduction Working Group with the PAs to plan for a two-part presentation on the summer 2020 ADM field experience and initial participation results, and the planned efforts for winter 2020/2021 ADM, including for storage offerings, for presentation to EEAC in November. | See summer 2020 ADM and winter 2020/2021 ADM information needs below. | Completed initial planning and coordination with the PAs for presentation at the November EEAC meeting. Drafted slides and materials. |
| November | November 5 Planning Workshop #1 and November 18 EEAC meeting | ADM plans and performance to date | Present on ADM plans and performance to date. Coordinate with PAs in advance. Prepare slides and materials in advance. | Summer 2020 field experience, performance and cost data, and results. Winter 2020/2021 ADM planning estimates and forecasts. | Completed preparation and slides, and presented to EEAC on November 18. |
| December | N/A | Gas ADM | Review PA proposals in rate cases for gas ADM, and review DPU orders. | PA gas ADM proposals | Reviewed PA proposals for gas ADM and DPU orders to pursue gas ADM as part of EE plans and programs. |
| On-going Q4 | N/A | Summer 2020 ADM | Monitor summer 2020 ADM activities and participation, including for storage and daily dispatch, and compare to three-year plan goals. Check in with PAs on ADM implementation and | Summer 2020 field experience, performance and cost data, and results | Monitored summer 2020 ADM activities and initial field experience. Reviewed initial field experience as part of preparation for ADM presentation at November |

| | | | | | |
|--|-----|----------------------|---|---|---|
| | | | field experience. Assess the opportunities for solution providers to participate and the progress on integrated solutions (ADM and EE). Assess degree and nature of solution provider participation in summer 2020. | | EEAC meeting. |
| | N/A | Winter 2020/2021 ADM | Check with the PAs on the planned efforts for the winter of 2020/2021, including for storage offerings. Compare planned efforts to three-year plan goals | Winter 2020/2021 ADM planning estimates and forecasts | Reviewed as part of planning for ADM presentation at November EEAC meeting, Continuing review through winter 2020/2021. |

RESIDENTIAL AND INCOME ELIGIBLE

The Residential Advisory Group's quarterly report is structured primarily around the Residential Management Committee (RMC) meetings which took place twice per month. This quarter, the Residential Advisory Group worked intently on preparing for and participating in EEAC planning workshops related to Residential and Income Eligible topics. Our work including preparing briefing materials, participating in planning meetings, discussing our recommendations with the Residential Management Committee (RMC), and participating in the workshops.

| Time Period | Meeting | Topic(s) | Task | Information Needed | Status |
|-------------|----------------|--|---|--------------------------|--|
| October | October 14 RMC | Res active demand management strategies; promotion of enhanced weatherization incentive for rental properties; PA behavior updates | Determine status of PA efforts within these topic areas | PAs' April 30 draft plan | |
| | October 28 RMC | New construction | Discuss recommendations brought forward by team to EEAC | None | Planning to discuss PA plans for addressing relevant EEAC recommendations at a |

| | | | | | |
|-----------------------------------|---|---|--|--|--|
| | | | Workshop 1 | | future RMC meeting |
| November | November 5 EEAC planning workshop | New construction and active demand management | Prepare briefing materials, present at workshop, review and edit meeting summaries and recommendations | PAs' April 30 draft plan | Planning to discuss PA plans for addressing relevant EEAC recommendations at a future RMC meeting |
| | November 10 EEAC planning workshop | Income Eligible Services | Prepare briefing materials, present at workshop, review and edit meeting summaries and recommendations | PAs' April 30 draft plan | Planning to discuss PA and LEAN plans for addressing relevant EEAC recommendations at a future meeting |
| | November 12 RMC | New info on masssave.com to support customers making new HVAC purchases | Review and provide feedback on new content | Online energy optimization calculator | Providing input on demo Clean Energy States Alliance (CESA) calculator, which serves as basis for calculator PAs will develop |
| December | December 10 RMC | Consultants' workshop 4 recommendations: ground source heat pumps (HP) and revisions to fossil fuel HVAC incentives | Discuss recommendations brought forward by team to EEAC Workshop 4 | PAs' April 30 draft plan | Contribute as needed as discussions with PAs progress |
| | December 15 EEAC planning workshop | Residential retrofit topics | Prepare briefing materials, present at workshop, review and edit meeting summaries and recommendations | PAs' April 30 draft plan | Actively discussing options with RMC for advancing strategies to achieve a combined HP/weatherization approach at scale |
| On-going and additional Q4 | 2x/mo., plus planning meeting and preps | Equity Working Group | Prepare for and participate in Equity Working Group meetings | Various types of information to support focus topic for each meeting | Consultants have been compiling information and preparing recommendations for consideration by working group members as well as participating in the meetings. |

| | | | | |
|-----|---|---|--|---|
| N/A | COVID-19-related program implementation | Monitor PA efforts; coordinate regionally to identify strategies; provide ideas and effective practice suggestions to PAs | Updates from PAs and around region on virtual audits participation, energy savings packages, and conversions as well as return to field experience; continue work on highlighting summer savings opportunities | PAs have reported backlog in weatherization work and as a result are not boosting promotion of extended 100% weatherization incentive for rental properties. Will continue to monitor pipeline. |
| N/A | PA reporting | Review and analyze PA reporting, including Q3 report and KPIs | Q3 report and KPIs | Reviewed report and associated data |
| N/A | EM&V | Coordinate with res EM&V efforts, including providing input on draft res EM&V work products | Draft res EM&V reports, including for municipal partnerships | No updates for the quarter |
| N/A | Income Eligible Program | Coordinate with LEAN and DOER on an ongoing basis | None at this point | Planning to discuss PA and LEAN plans for addressing relevant EEAC recommendations at a future meeting |

COMMERCIAL AND INDUSTRIAL

The C&I team's quarterly report is structured primarily around scheduled Commercial & Industrial Management Committee (CIMC) meetings which took place twice per month, as well as participation in several different PA working groups. Where possible, substantive matters were discussed at CIMC to ensure a discussion and exchange of information and perspectives. In addition, there were ongoing matters we are attending to that stem from prior work with the CIMC, EEAC, and C&I stakeholders, including addressing the EEAC's priorities and general work to monitor the PAs' implementation of their 2019-2021 Plan commitments. The specific tasks related to these meetings and on-going work are listed in the table below:

| Time Period | Meeting | Topic(s) | Task | Information Needed | Status |
|-----------------|---|--|--|---|---|
| October | October 7 CIMC Meeting | Retro-commissioning (RCx) programs | Discussion of retro-commissioning and controls/tuning measures for C&I programs including newly launched PA “ESPO” initiative | Update on savings and incentives for all ESPO pathways including low/no cost tuning measures, target system, whole building process and monitoring-based commissioning programs | Meeting complete; additional meetings w/ PA staff on Energy Management Information Systems (EMIS) programs scheduled and complete |
| | October 19 and October 26 C&I ventilation subcommittee meetings | Baseline and savings calculation adjustments to ventilation in C&I buildings | Lead cross-functional group of implementation and evaluation PA staff and consultants in the development of negotiated EM&V approaches for ventilation and HVAC measures in K-12 schools | Details from PA staff and vendors on HVAC measures being considered by schools for improved IAQ | Complete; memo to be drafted documenting agreed upon EM&V approaches |
| | | | | | |
| November | November 4 CIMC Meeting | Three-Year Planning Workshop #3 Existing Buildings Retrofit – prep meeting | Discuss PA input on draft council recommendations and meeting materials to be used for workshops | NA | Complete; PA input provided and used to inform preliminary recommendation revisions |
| | November 17 CIMC Meeting | Three-Year Planning Workshop #4 Workforce Development – prep meeting | Discuss PA input on draft council recommendations and meeting materials to be used for workshops | NA | Complete; PA input shared via Equity Working Group meetings |
| | November 9, 16 and 23 C&I ventilation subcommittee | Baseline and savings calculation adjustments to ventilation in C&I | Develop consensus memos documenting agreed upon EM&V adjustments for K-12 | Details from PAs on school audits and measures being scoped | Complete; memos drafted and in need of final approval documenting agreed upon |

| | meetings | buildings | school ventilation measures | | EM&V approaches |
|--------------------|---|---|--|---|--|
| December | December 2 CIMC Meeting | Three-Year Planning Workshop #5 Existing Buildings – Equity (small business) – prep meeting | Discuss PA input on draft council recommendations and meeting materials to be used for workshops | NA | Complete |
| | December 8 Building Operator Call w/ MassCEC Staff | Mass Save and MassCEC workforce development studies and initiatives | Call to discuss Mass Save workforce development initiatives as well as opportunities for MassCEC to support building operator training | NA | Complete; EEAC consultants and MassCEC staff to follow up as planned workforce initiatives are further along in planning process |
| | December 15 CIMC Meeting | Three-Year Planning Workshop #6 Finalize Recommendations – prep meeting | Discuss PA input on council recommendations and feedback from councilors/stakeholders heard during workshops 1-5 | NA | Complete; PA input and perspectives on various councilor workshop recommendations integrated into final version to be voted on in early 2021 |
| | December 7, 12 and 21 C&I ventilation subcommittee meetings | Baseline and savings calculation adjustments to ventilation in C&I buildings | Finalize consensus memos documenting agreed upon EM&V adjustments for K-12 school ventilation measures | Sign-off from all participating stakeholders of ventilation subcommittee of baselines memo, EC motors memo and air purifiers memo | Meetings completed; all memos finalized and distributed internally for PA implementer staff |
| On-going Q4 | Equity Working Group Meetings | Small Business, Workforce Development | Provide initial recommendations to EWG and participate in meetings w/ external stakeholders to generate final EWG recommendations | Feedback from stakeholder process to inform council recommendations | Ongoing |
| | Councilor Education and | C&I program implementation, program | Provide information and councilor | NA | Ongoing |

| | | | | | |
|--|---------|--------------------------------|--|--|--|
| | Support | results and barrier mitigation | education/support to newly added C&I councilor on EEAC | | |
|--|---------|--------------------------------|--|--|--|

EVALUATION, MEASUREMENT, AND VERIFICATION

In Q4, our work in the area of Evaluation, Measurement, and Verification (EM&V) continued to be shaped by the requirements of the 2009 Council resolution that established the Commonwealth’s current EM&V framework, which assigns substantial responsibilities to the Council Consultants. Working on the Council’s behalf, we are charged with overseeing every phase of the EM&V process, including evaluation planning, contractor procurement, study implementation, reporting and outreach, and application of study results.

Specific EM&V research objectives in the second quarter of 2020 include:

| Time Period | Task | Information Needed | Status |
|-------------------|--|--------------------|----------|
| Ongoing Q4 | Move new studies from the planning stage into the implementation stage | | Complete |
| | Oversee implementation of in-progress studies | | Complete |
| | Oversee final reporting for studies in the reporting stage during Q4 | | Complete |
| | Support DOER in the planning process for 2022-2024 | | Complete |

TECHNICAL SERVICES

The Technical Services team is responsible for a variety of administrative tasks that support the Council’s information sharing.

Below are the primary tasks of the Technical Services Team in Q4 were:

| Time Period | Task | Information Needed | Status |
|--------------------|--|--|--|
| October | Develop Planning Resources page on EEAC website | | Complete |
| On-going Q4 | Support DOER with virtual meeting logistics as needed | | Complete |
| | Post meeting materials for the July-September EEAC Meetings | Meeting materials for the July-September EEAC Meetings | Complete |
| | Take meeting minutes at the July-September Executive Committee and EEAC meetings | | Complete |
| | Update EEAC website | | Updated work plan for website updates based on feedback from Council. This work will be on-going in 2021 |

COUNCIL DELIVERABLES

The sections below provide details on Council work products for Q4:

| Month | Category | Topic | Description | Advisory Group(s) | Status |
|-----------------|-------------------|--------------------------------|--|-------------------------|---|
| October | Presentation | October EEAC Meeting | A presentation on high performance commercial HVAC | C&I | Complete |
| November | Presentation | November EEAC Meeting | A presentation on active demand performance to date and looking ahead | Active Demand | Complete |
| | Memo | Assessment of Potential | A memo describing the methodology and findings of an initial assessment of potential for the 2022-2024 Planning period | P&A | Draft provided to DOER |
| | Briefing Document | Planning Workshop #1 | Memo providing background information and recommendations for 2022-2024 Plan related to new construction and active demand | Res, C&I, Active Demand | Complete |
| | Briefing Document | Planning Workshop #2 | Memo providing background information and recommendations for 2022-2024 Plan related to Income Eligible Services | Residential | Complete |
| | Report | Consultant Team Q3 report | A report summarizing the activities of the Consultant Team in Q3 | All | Complete |
| December | Memo | Consultant Team 2021 Work Plan | A memo summarizing the anticipated tasks, deliverables, and budget | All | Draft completed and shared with DOER in December 2020; workplan |

| | | | | | |
|--------------------|----------------------|----------------------|---|----------|--|
| | | | of the Consultant Team for 2021 | | presented to the ExCom and Council in January 2021 |
| | Briefing Document | Planning Workshop #3 | Memo providing background information and recommendations for 2022-2024 Plan related to C&I Existing Buildings | C&I | Complete |
| | Briefing Document | Planning Workshop #4 | Memo providing background information and recommendations for 2022-2024 Plan related Residential Existing Buildings and Workforce Development | Res, C&I | Complete |
| On-going Q4 | Tracking Spreadsheet | EM&V Status Update | A spreadsheet summarizing the status of current and planning EM&V studies – Updated monthly | EM&V | Complete |