

Memo



→ CONSULTANT TEAM

To: **Energy Efficiency Advisory Council**
From: **Eric Belliveau and the Consultant Team**
Date: **November 13, 2020**
Subject: **EEAC Consultant Team 2020 Third Quarter Report**

SUMMARY

This document summarizes the work completed by the EEAC Consultant Team during the third quarter of 2020. In each section below, the Consultants provide details on the status of key work areas undertaken during Q3. 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 Q3 that did not have a distinct deliverable associated. In Q3, 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 Q3 of 2020. All advisory groups were involved in these efforts to some extent. Many of these tasks will be on-going in Q4 of 2020 and into 2021. The majority of our three-year planning work in Q3 was focused on preparing for 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 began preparing material for workshop briefing documents.

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>Developed outline of key issues, existing resources to drawn on and new information</p> <p>Developed list of PA requests for briefing materials</p> <p>Began compiling and developing content for briefing documents.</p>
Planning Workshops	Assist the facilitator by adding to the workshop summary content	Jul-Feb 2020-2021		<p>Coordinated with DOER and on workshop schedule, topics, and format</p> <p>Planning workshops began in Q4 on 11/5/2020</p> <p>Facilitator assistance with summary content will take place in Q4 of 2020 and Q1 of 2021</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 when available 	<p>Reviewed potential study measure lists provided by PAs in late June and provided comments to PAs.</p> <p>Reviewed scenario definitions and provided feedback to PAs.</p> <p>Waiting on more information about program design changes being modeled and initial draft results to review.</p> <p>Draft results expected in January 2021.</p>
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PLANNING & ANALYSIS

In Q3, 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
July	N/A	Mitigation Strategies	Support the PAs in identifying and developing mitigation strategies for the impacts of COVID-19 on EE implementation	PA plans for program strategies, outreach, virtual auditing, etc.	Most of the COVID mitigation strategies are currently in the field and details are being worked out. Initial results are promising, and evaluation is currently implementing studies to understand the effects on programs and measures.

	July 15 EEAC Meeting	Follow-up discussion on topics raised at June EEAC meeting presentations on 2019 plan year results, and during June 29 performance incentive webinar	Follow up with Councilors to prepare for Council discussion		Completed.
	N/A	AESC 2021 (regional avoided cost study)	Complete selection of AESC contractor and finalize any changes to proposed work plan for contract. Pursue priority issues and any scope modifications with PA leads and AESC study group. Participate in kickoff meeting in mid-July	Commercial portion of proposals with proposed costs by task and subtask, to finalize work plan Kickoff meeting slides from selected contractor with list of issues and needed decisions	Completed proposal review and scoring. Synapse Energy Economics selected as AESC 2021 contractor. Due to contracting delays, kickoff meeting delayed into August.
	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		Added additional measures to analysis and revised avoided costs based on latest preliminary values from AESC study. This work will continue in Q4.
	N/A	HVAC fossil fuel savings in new construction	Research savings from new fossil fuel systems and review baseline studies to being planning for 2022-2024		Complete. Analysis provided to DOER to support strategic planning.
August	August 19 EEAC Meeting	Income-Eligible	Review and provide feedback on PA draft presentations; brief Councilors	Draft PA presentations	Complete

September	September 16 EEAC Meeting	Residential Program Updates, PA Q2 Report	Review and provide feedback on PA draft presentations; brief Councilors	Draft PA presentations	Complete
On-going Q3	N/A	AESC 2021 (regional avoided cost study)	Review initial work products on methods and assumptions, and on early/initial analysis. Participate in study group reviews and meetings. Review other AESC materials as available	AESC draft memos and work products	Participated in AESC 2021 kickoff meeting in August, weekly or bi-weekly study group calls, and ad hoc discussions with PA leads and contractor to guide scope. Reviewed draft materials and deliverables and provided comment and input on priority issues. This work will continue through 2021 Q1.
	N/A	Goals framework: multiple goals and MMBTUs	Pursue next steps on MMBTUs solution and revised framework for multiple goals		Developed multiple goals proposal with DOER and AGO; presented goals framework to PAs in strategic planning meeting. Discussed goals framework and multiple goals with PAs, DOER, and AGO in ongoing strategic planning discussions.

	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		<p>Engaged in strategic planning discussions with PAs, DOER, and Attorney Generals Office (AGO).</p> <p>Worked with DOER, AGO, and PAs to identify distinct strategic planning groups to work on specific topics as part of the three-year planning process. Attended initial meetings of several work groups. This work will continue in Q4.</p>
	N/A	Assessment of Potential	Develop an estimate of the achievable potential in MA over the next three years		<p>Reviewed recent potential studies completed in Rhode Island and New Hampshire.</p> <p>Developed a list of key topics to review related to savings potential in MA and began analyzing data related to topics.</p>

ACTIVE DEMAND

In Q3, the active demand advisory group reviewed the ADM experience for winter 2019/2020, reviewed the initial field experience for summer 2020 ADM (based on partial information received from the PAs during Q3), began planning with the PAs for the ADM presentation for the November EEAC meeting, began preparation for the November 5 planning workshop on ADM (reported above), and reviewed the DPU order approving Daily Dispatch, all in support of the Council’s resolution on this topic.

Time Period	Meeting	Topic(s)	Task	Information Needed	Status
July	N/A	Daily Dispatch offering	Review DPU order on Daily Dispatch.		Reviewed the DPU order approving the Daily Dispatch offering.

August	N/A	Winter active demand management (ADM) offering	Assess performance and continuation of Winter ADM offering		Assessed PA suggestion to discontinue Winter ADM offering. Reviewed ADM performance and cost-effectiveness, reviewed and summarized/communicated the findings of the winter benefits supplemental study, and assessed likely changes forthcoming from the AESC 2021 avoided cost study. Recommended continuation of Winter ADM offering.
September	N/A	Initial planning for an ADM update presentation to the EEAC in the fall of 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 and winter 2020/2021 information needs below	Postponed initial planning and coordination with the PAs to October, for presentation at November EEAC meeting. Initial planning and preparation for ADM workshop topic on November 5 is covered in workshop planning activities reported above.

On-going Q3	N/A	Summer 2020 Active Demand Management (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 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.	Summer 2020 field experience and initial participation data	Monitored summer 2020 ADM activities and initial field experience. Review of initial field experience postponed to Q4; summer 2020 information from PAs to be received in Q4. To be reviewed as part of preparation for ADM presentation at November EEAC meeting.
	N/A	Winter 2020/2021 ADM	Check in 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 or forecasts	Postponed until Q4; will be addressed and coordinated with PAs as part of planning for ADM presentation for November EEAC meeting

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. Where possible, substantive matters were discussed at RMC 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 RMC, EEAC, and LEAN, including addressing the EEAC’s priorities and general work to monitor the PAs’ implementation of their 2019-2021 Plan commitments. Much of this Quarter’s work involved efforts to adjust to COVID-19-related developments and impacts. Beyond those matters, 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
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July	July 8 RMC	Multifamily	Determine status of PAs' multifamily program efforts, especially with restructuring into new RCD initiative	Status update from PAs; MF participation information	Received general updates. PAs indicated they will not provide separately report multifamily participation.
	July 15 EEAC	Energy optimization, new reporting on underserved populations	Contribute content to briefing document prepared for the meeting	KPI data	Continued to monitor PA progress in providing customer EO information https://ma-eeac.org/wordpress/wp-content/uploads/July-Briefing-Slides-7.10v3.pdf . This work is on-going.
	July 22 RMC	DOER's MVP pilot and home scorecards	Work with DOER to prepare update and ID desired outcomes; determine status of PA scorecard efforts	Status update from PAs, including specific tasks and timing	PAs reported scorecards are scheduled to roll out in Q1 2021. Will continue to monitor progress.
August	August 12 RMC	COVID implementation update; Sept. EEAC planning	Determine status of COVID-related efforts	Status update from PAs	Received general updates
	August 19 EEAC	Low Income Program Update	Review presentations from LEAN and/or PAs; draft consultants' presentation	Draft presentations; outstanding LEAN participation data request; written update from LEAN on implementation of process evaluation recommendations in advance	LEAN provided various details in Aug. EEAC presentation. We continued to pursue participation data issues in IES workshop.
	August 26 RMC	Statewide marketing	Provide questions to PAs to answer at RMC meeting	Status update from PAs	Received updates.

September	September 9 RMC	September EEAC meeting	Gather PA input on draft presentation	None	Received input.
	September 16 EEAC	Residential topics	Prepare presentation to kick off residential planning for 2022-2024	None	Complete. https://ma-eeac.org/wordpress/wp-content/uploads/Consultants-9.10-draft-Sept-res-EEAC-presentation.v3.pdf
	September 23 RMC	Electric new construction	Determine status of PAs' assessment of an electric-focused approach to new construction	Updated data of participation by fuel source; program update from PAs	The PAs have generally indicated that their program design incentivizes electric fuel choice, but more recently have indicated a willingness to look further at an approach specific to electric. Will continue to discuss approaches to include in draft 2022-2024 Plan.
On-going and additional Q3	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 Q2 report and KPIs	Q2 report and KPIs	Reviewed report and associated data; Contributed content to Sept. presentation on Q2 results to EEAC.
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	Supplied input on municipal partnerships EM&V study
N/A	Planning, technical and strategic support	Determine current status of PA implementation efforts regarding energy optimization, municipal partnerships 2021 planning, and Residential Coordinated Delivery	Updates from PAs on energy optimization strategy (specifically customer education information and calculator) and rollout of improved integrated voice response phone system; KPI data	Calculator project still in progress. Customer education information posted in early November--providing input to PAs on suggested enhancements at 11.12 RMC meeting.
N/A	Income Eligible Program	Coordinate with LEAN on an ongoing basis; collect and organize data on IES	Updates and information from LEAN regarding participation analysis, electronic data collection, and efforts to increase heat pump installations	For Q3, this work was encompassed by preparations for the August EEAC meeting, which focused on Income Eligible topics. See status report above.

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
July	N/A	Mitigation Strategies	Support the PAs in identifying and developing mitigation strategies for the impacts of COVID-19 on EE implementation	PA plans for program strategies, outreach, virtual auditing, etc.	EEAC consultants advocated for and helped launch a subcommittee comprised of implementation and evaluation stakeholders to examine the impact of COVID-19 on C&I ventilation and HVAC. This group is working to identify means of enhancing support for C&I customers making HVAC upgrades in response to the pandemic
	July 1 Commercial & Industrial Management Committee (CIMC)	Update on Retro-commissioning	Check back in on Retro commissioning savings for HVAC and other non-lighting C&I savings; progress update on statewide implementation of Equipment & Systems Performance Optimization (ESPO) program, as discussed at January 21 CIMC	PA to provide retro commissioning and ESPO savings and participation by pathway for 2020 year-to-date	Meeting Complete; Consultants provided examples of HVAC tune-up measures used in other states, some of which have since been adopted by the PAs and integrated into the ESPO program as new low/no-cost tuning measures
	July 21 CIMC meeting	Updated meeting topic: Combined Heat and Power (CHP) <i>CIMC topic swapped w/ subsequent meeting: Impact evaluations, process evaluations and Baseline Advisory Group</i>	Discussion of CHP performance in 2019 and remaining 2020 pipeline; changes in CHP market including micro-CHP and alternative fuels; cross promotion of the Alternative Portfolio Standard/Mass Save; addressing market barriers.	Bi-annual CHP update from PAs included in 2020 Q2 report	Meeting Complete; PAs provided 2020 updated CHP guidebook to Consultants, as well as an ICF Whitepaper on the GHG impacts of CHP in New England PAs still have not provided bi-annual update on CHP; only update this planning cycle was from October 2019 EEAC presentation

August	August 10 CIMC meeting (originally scheduled for August 5 th)	<i>Updated meeting topic: Impact evaluations, process evaluations and Baseline Advisory Group</i> <i>CIMC topic swapped w/ prior meeting: Combined Heat and Power (CHP)</i>	Impact of evaluations on planning and implementation programs. Coordination with evaluation group earlier in the process when trying new pathways/technologies. Where can we use evaluation to help improve programs.	None	Meeting Complete; At recommendation of Consulting team, CIMC plans to reinstate monthly run-down of relevant EM&V studies. Consultants also recommended PAs consider early impact/process evaluation for new initiatives like ESPO.
	August 18 CIMC meeting	Updated meeting topic: School Indoor Air Quality (IAQ) measures <i>Replacing previous topic: Small Business Participation and Savings</i>	Discussion of work w/ schools on HVAC measures that optimize the delivery of safe IAQ for school re-opening	Presentation materials for School IAQ webinar Mass Save which was conducted in early September	Meeting Complete; Consultants continued coordinating between PAs, DOER and the Dept. of Elementary and Secondary Education (DESE) on developing materials for Mass Save school IAQ webinar
September	September 2 CIMC meeting	HVAC	Review of PA performance in realizing custom HVAC savings; value of KPI; PA differences - size of projects, types of customers, gas vs electric savings (or both); new approaches. Emphasis on new energy optimization offerings for small commercial / prescriptive heat pumps displacing oil/propane, as well as opportunities to add controls to existing HPs for partial gas displacement	Quarterly KPI #5, ongoing concerns around data quality for this KPI in particular	Meeting Complete; Consultants shared continued concerns w/ data quality of KPI #5 due to inconsistencies in PA reporting over time. PAs shared that all C&I customers have expressed a reluctance to invest in upgrading HVAC systems. Consultants pointed out that there is heavy focus on HVAC system upgrades right now for IAQ purposes and it is incumbent on Mass Save to find a way to leverage this enhanced focus on HVAC to deliver IAQ and EE simultaneously

	September 15 CIMC meeting	Cannabis cultivator electric and gas efficiency measures	Discussion of custom electric and gas measures at cannabis cultivator facilities with emphasis on non-lighting savings such as de-humidification controls	None	Meeting Complete; PAs brought in cannabis EE subject matter experts who were able to provide very specific details on opportunities in these facilities. Agreement amongst Consultants and PA staff that significant HVAC and industrial process savings exist in addition to incremental lighting improvements
On-going Q3	N/A	Energy Management Systems (EMS) Baseline position document	In collaboration with the C&I PA implementers and evaluators, the C&I consulting team has been working to develop a better framework for establishing baselines for EMS. This document will be finalized and released in early Q3		Complete; EMS baseline memo was posted to EEAC website in July and new baseline framework is in effect until an ISP study can be completed.
	N/A	Workforce Development Efforts	Continue to participate in discussions with PAs, EEAC, and external stakeholders on workforce development initiatives, including the PAs recently issued RFP for a vendor to coordinate these efforts.	Response to PA RFP for a workforce development vendor (preferably able to review all proposals, but at least need to see selected proposal from winner of RFP)	Ongoing; C&I consultants have participated in multiple forums and working groups discussing Mass Save workforce development efforts in current and next Three-Year Plan.

EVALUATION, MEASUREMENT, AND VERIFICATION

In Q3, 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 Q3	Move roughly 25 new studies currently in the planning stage into the implementation stage		Completed.
	Oversee implementation of roughly 45 studies that either are or will be in-progress during the quarter		EM&V team has been managing through a very busy year using its time efficiently in covering the most important aspects of ongoing studies.
	Oversee final reporting for roughly 10 studies expected to be in the reporting stage during Q3		Completed.
	Support DOER in the planning process for 2022-2024		Completed.

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 Q3 were:

Time Period	Task	Information Needed	Status
On-going Q3	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		Developed work plan for website updates based on feedback from Council. This work will be on-going in Q4.
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COUNCIL DELIVERABLES

The sections below provide details on Council work products for Q3:

Month	Category	Topic	Description	Advisory Group(s)	Status
July	Report	Consultant Team Q2 report	A report summarizing the activities of the Consultant Team in Q2	All	Complete
	Memo	Consultant Team Q3 Work Plan	A memo summarizing the anticipated tasks and deliverables of the Consultant Team in Q3 for ExCom	All	Complete
	Memo	2019 Results Discussion Topics	Additional information on July meeting discussion topics to brief Councilors on issues	Residential, C&I	
	Memo	TRM	A memo summarizing our review of the application of TRM inputs into the 2019 plan year BCR models	P&A	Reviewed all measures in 2019 plan year BCR models for consistency with TRM with emphasis on impact factors. No memo was prepared as no significant discrepancies were discovered.
	Presentation	July EEAC Meeting: Follow-up discussion on 2019 plan year results, and performance incentive webinar	Develop briefing documents covering topic for additional discussion: Energy Optimization, reporting on underserved populations, and C&I 2019 results	All	Complete

August	Memo(s)	2022-2024 Planning Topics	Memos on each individual topics, as well as summary documents covering key topics for discussion and issues that may impact planning	All	Began planning for EEAC workshop and associated briefing materials for Council.
	Memo	Role of the Council	A memo describing the roles and responsibilities of the Council based on the directive of the Green Communities Act and DPU orders	P&A	Draft provided to DOER
	Presentation	August EEAC Meeting: Income Eligible Services	A presentation on areas of opportunity for income-eligible services	Residential	Complete
September	Memo(s)	2022-2024 Planning Topics	Memos on each individual topic, as well as summary documents covering key topics for discussion and issues that may impact planning	All	Developed master outline of content to be included in workshop briefing documents. Began developing content for workshop #1 briefing document.
	Presentation	September EEAC meeting: Residential Programs	A presentation on progress in addressing residential program opportunities identified in the 2019-2021 planning cycle	Residential	Complete
	Presentation	September EEAC meeting: PA Q2 2020 Results	A presentation on PA Q2 2020 results with a focus on KPIs	All	Complete
On-going Q3	Tracking Spreadsheet	EM&V Status Update	A spreadsheet summarizing the status of current and planning EM&V studies – Updated monthly	EM&V	Complete