

# Memo

To: **Energy Efficiency Advisory Council**  
From: **Eric Belliveau and the Consultant Team**  
Date: **January 5, 2021**  
Subject: **EEAC Consultant Team Proposed 2021 Work Plan and Budget Request**

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## SUMMARY

### Strategy for this Work Plan

As in the past, our work is divided into several 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, several work areas further clarify the tasks and topics that we plan to address over the coming year. The advisory group leaders worked with representatives from DOER and others to define and present the information included in this work plan. At the point we developed this plan in December 2020, the EEAC had not yet developed its priorities for 2021. The Consultant Team will be updating this plan quarterly during 2021 and to the extent revisions are necessary to accommodate EEAC priorities not covered in the plan, we will do so along the way.

One task that will cut across all advisory group areas will be supporting the development of the 2022-2024 Plan. Rather than describe the same Three-Year planning process tasks in each advisory group individually, we have described the work of the whole Team related to this task in the section below. Additional three-year planning work specific to individual advisory groups, such as developing the EM&V 2022-2024 Strategic Evaluation Plan (SEP) and supporting the Avoided Energy Supply Cost Study (AESC), are covered in their respective sections. We have also included a separate deliverables section as well as a timeline of when these deliverables are expected to be completed. As in the past, we provide details on deliverables but note that we retain flexibility to respond to the Council and as other topics/issues arise. The Consultant Team's contract begins January 2021 and the budget described in this work plan reflects a 12-month period through December 2021. Most of the work plan tasks and deliverables will be concentrated over of this same time period.

At a high level, the Consultant Team expects much of its focus to be forward looking to support the development of the draft 2022-2024 Plan, which is due in April 2021, and the Final Plan due in October 2021. Another cross-cutting area of focus will include the Council's continued focus on equity in 2021, with a slate of new goals proposed by the EEAC Equity Working Group. While some of these goals will fold into the 2022-2024 Plan, others can be prioritized for work in 2021. Additionally, the Team will be focused to support all efforts to help production following the setbacks that COVID-19 created, especially in Income Eligible Services (IES) and in the installation of residential heat pumps (IES and market rate).

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## THREE YEAR PLANNING

During 2021, the PAs must develop the fifth statewide electric and gas Three-Year Plans, covering 2022 through 2024. The Council will participate in developing and reviewing the Plans. The PAs must submit draft Plans for Council review in April and final Plans to both the EEAC and the DPU in October for formal review and approval. On behalf of the Council, we expect to review and analyze up to three iterations of the Plan prepared by the PAs

during 2021.

We also understand that the Council desires a collaborative process for developing the Three-Year Plans, including goal-setting and the relationship between the Plans and longer-term goals including the Commonwealth’s energy and climate policies. Therefore, we will work with the Council, individual voting Councilors, workshop participants, other stakeholders, and the PAs to get input and feedback and to seek outcomes that are developed collaboratively and have support of all or the majority of voting Councilors. We will take our direction from the Executive Committee and the Council at large in terms of how best to address deliverables for the planning process.

The table below identifies the major activities and milestones anticipated during the planning process and the timeframe in which they take place. All Advisory Groups on the Consultant Team will be involved in each of these tasks to some extent. Additional Three-Year planning work that is specific to individual advisory groups is described within each respective Advisory Group Section of this work plan.

<b>Time Period</b>	<b>Topic</b>	<b>Task</b>
January	Planning Workshops	Work with Equity Working Group to support preparation for the Equity focused workshop
		Compile and communicate revisions to the draft recommendations based on councilor comments. Participate in January workshops and assist the facilitator by adding to the workshop summary content
	PA Potential Studies	Review draft PA potential studies
February	Planning Workshops	Support the development of Council recommendations resolution
	Consultant Team Assessment of Potential	Finalize Consultant Team assessment of potential and initial goals recommendations
March	Equity	Support transition of Equity Working Group to goal refinement, prioritization, and implementation.
April-May	April Draft 2019-2021 Plan	Initial review of the PA draft Plan between April filing and May EEAC meeting
May-June		Assist the Council in the review of the draft Plan. Assess in detail the aspects of draft Plan including goals, budgets, cost-effectiveness,

		etc.
May-July	Key Drivers Process	Identify main assumptions that account for any difference in the proposed goals and budgets put forward by the PAs and those by the Consultants
July	EEAC Comments	Assist the EEAC in developing its comments and resolution on the draft Plan
August- October	Analysis and Term Sheet Negotiations	May include targeted analysis on specific topics and various discussions. Process results in final Term Sheet, which is included in the Plan and referenced in the Council Resolution on the Plan
	Final Plan	Coordinate with the PAs on the development of the final Plan.  Support the Council in developing its comments and resolution on the final Plan.
On-going Q1	Strategic planning	Work with DOER, AGO, and PAs to schedule and participate in meetings related to high priority topics identified as areas of focus for the next Three-Year Plan.

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## PLANNING & ANALYSIS

### Context

In addition to planning for the 2022-2024 Three-Year Plan as described above, our work in the area of planning and analysis will focus on several important Council support activities. These include:

- Ensuring that the Council is effective in the performing its responsibilities, and that Council processes are informative, effective, and efficient
- Providing technical analysis to support the development and implementation of a strategic vision for the future, in order to identify opportunities and implement crucial adjustments to the energy efficiency picture and programs in Massachusetts
- Reviewing reports/data and providing recommendations on program and portfolio performance to help support the achievement of high goals in the 2019-2021 Three-Year Plan

To work towards and facilitate these outcomes, we will work in the three major planning and analysis areas described below. To the extent a task comes up that is not explicitly or fully listed in this plan, the Consultant Team will establish a scope and budget for its execution.

## Work Areas

### PARTICIPATE IN EEAC MEETINGS, BRIEF AND SUPPORT THE COUNCIL

- Prepare for and attend all EEAC meetings and Executive Committee meetings as directed.
- Provide independent technical support in advance of and during Council and Executive Committee meetings for all areas of energy efficiency and demand reduction planning, policy development, technical and economic analysis (cost-effectiveness), program design and implementation, and tracking and monitoring of progress towards achieving the 2021 goals. This includes a variety of deliverables including emails, spreadsheets, memos and presentations.
- Provide individual briefings to Councilors on a rotating basis with a goal of talking to each Councilor at their desired frequency.
- Assist with providing orientation for new(er) Councilors. This includes individual meetings, review and edit of the councilor handbook and any other historical information the new councilor may need.
- Complete a document defining the Consultant Team's roles and responsibilities for supporting the EEAC.

### TECHNICAL ANALYSIS

- Support planning and analysis for implementation of 2019-2021 Plan; review and analyze results
  - Review and analyze available information to guide implementation, evaluation, and reporting of new elements in the Plan such as active demand management (ADM), energy optimization/fuel switching/electrification, KPIs, the residential program redesign, and strategic energy management, among others.
  - Review, analyze, and assess the PAs' reports and reporting, including the monthly dashboards and quarterly reports. Review trends and multi-year comparisons, review reporting on new elements of the Plan, and provide Consultant findings and recommendations to the Council. This task includes presentations to the Council throughout the year.
  - Use the PA reporting to assess and report to the Council on the status of program achievement towards the 2021 and 2019-2021 Three-Year Plan goals and related topics. Identify and assess any data or programmatic trends which portend successes or challenges in program delivery and savings. This may take the form of presentations and/or memos.
- Identify reporting improvement opportunities
  - Work with the PAs and the Council to design and implement further improvements to the PA reports, quarterly and otherwise, in response to Councilor feedback, including forward-looking projections and enhanced trend comparisons in the reports. This includes continuing to refine and clarify quarterly Key Performance Indicator (KPI) data, as well as the incorporation of new requirements for reporting on the equity of Mass Save programs
  - Review Mass Save Data and recent revisions and provide feedback to the PAs. Provide input on future revisions and additions. Task includes ongoing discussions and written suggestions on potential changes.
- Support cost-effectiveness screening, benefits analysis, and EM&V activities
  - Provide technical input to and review and comment on draft work products for the 2021 Regional Avoided Energy Supply Component (AESC) avoided costs study, and participate in the study group meetings with representatives from the six states. The AESC avoided cost study results will be used to conduct the cost-effectiveness analysis for all programs included in the 2022-2024 Plan, and therefore is a major study. The 2021 AESC study will be completed in March 2021.
  - Consider issues in applying the 2021 AESC results for 2022-2024 program years,

including analysis of the implications of the new avoided costs on benefits and net benefits for 2022-2024.

- Analyze cost-effectiveness screening, assessment of benefits and costs, and application of EM&V results and field experience; propose appropriate improvements for cost-effectiveness analysis and common screening tools. Task includes a memo reviewing current tools and suggestions for synthesis among MA PA tools.
  - Review, comment on, and contribute to the electronic Technical Reference Manual (eTRM). This is still an evolving process and the Consultant Team will assess what is needed as more information becomes available. Early review indicates a significant level of work is needed to properly understand the data input changes to the BCR models and their relationship to the eTRM.
- Coordinate strategic planning
- Coordinate strategic planning efforts with the PAs through the more regular meeting of the Planning and Analysis Group (PAG). This group provides a forum to discuss long term strategic planning issues that may not be part of the current plan. Examples of this for 2022-2024 are electrification, demand management programs, and a goals framework. This is separate from the implementation teams' approach to the issues.
- Contribute to other state and regional planning and analysis efforts
- Contribute to and review ISO-NE efficiency forecasting efforts, ensure the consistent and appropriate treatment of efficiency in the ISO forecast, and review and provide comments on the work of the ISO-NE Energy Efficiency Forecast Working Group. Task includes participation in the working group and close coordination with DOER and reporting to the Council on outcomes and for decisions that determine key project direction.
  - Provide technical assistance for reporting and tracking the Three-Year Goals and energy efficiency impacts for the Clean Energy and Climate Plan (CECP), including impacts of efficiency programs and other efficiency strategies on the 2020 and 2030 CECP goals. Task includes memos and/or presentations to the Council as needed.

#### **SUPPORT THE COUNCIL ON REGULATORY ISSUES AND DPU PROCEEDINGS**

- Track, monitor, review, summarize, and present to the Council information on all relevant DPU proceedings affecting energy efficiency and demand reduction programs, as assigned.
- Review and analyze any DPU-proposed or potential revisions to the DPU EE Guidelines coming out of Plan review and DPU approval or Performance Term Report review.
- Support additional proceedings that the Council wishes the Consultants to cover including grid modernization and performance-based ratemaking as they relate to the continued delivery of the Three-Year Plan.

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## **ACTIVE DEMAND MANAGEMENT**

### **Context**

The PAs' 2019-2021 Plan included statewide active demand offerings for the first time. In 2019, much of the active demand focus was on transitioning from active demand demonstrations to implementing statewide offerings at scale. During late 2019 and through 2020 the PAs implemented the approved active demand offerings, which include residential direct load control and C&I interruptible load curtailment. The PAs have also been implementing a Daily Dispatch storage offer, per the recent DPU Order. In 2021, the Active Demand Group will focus on monitoring and tracking active demand management and daily dispatch field experience and results. We will also work on supporting program offerings in the field this summer and winter, and will monitor what has already been done. Last, we will also work with the PAs on strategic planning for active demand offerings in the 2022-2024 Plan.

## Work Areas

### PLANNING, TECHNICAL, ANALYTICAL, AND STRATEGIC SUPPORT FOR IMPLEMENTATION OF THE 2019-2021 PLAN

- Review and analyze available information to guide implementation, evaluation, and reporting of ADM elements of the Plan including daily dispatch.
- ADM supporting tasks will include:
  - Coordinate with the Demand Reduction Working Group of the PAs for a two-part discussion on the 2020 ADR results (programs and demonstrations) and the planned efforts for the summer of 2021, including for daily dispatch storage offerings.
  - Support the PAs with identifying lessons learned from the ADM and daily dispatch field experience and results.
  - Monitor and review the winter 2020-2021 demand management efforts.
  - Coordinate with the Residential and Commercial and Industrial (C&I) teams to ensure fully integrated program delivery of ADM and EE in the programs.
  - Assess the impact of the AESC 2021 avoided cost study on future ADM offerings.

### IDENTIFY AND REVIEW NEW OPPORTUNITIES AND EM&V IMPACTS

- Complete the review of the EM&V results of 2019 efforts, review plan and evaluations for 2020 offerings.
- Coordinate with the PAs on gas demand management opportunities and potential benefits, which may include impacts on electric prices.

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## RESIDENTIAL AND INCOME ELIGIBLE

### Context

2021 is a pivotal year for the Mass Save Residential and Income Eligible Sectors as the PAs strive to achieve the commitments and goals in the last year of the 2019-2021 Plan and lay the groundwork for the 2022-2024 Plan. The impacts of COVID-19 on savings and participation for both sectors were significant in 2020, and we expect that will continue to be the case in 2021. At the same time, the realities of COVID have required adaptations such as virtual home energy assessments that will serve as core program elements beyond the pandemic. After an outstanding run that ends with successful transformation of the lighting market, 2021 will be the last year the PAs claim savings for retail and direct install lighting measures in the Residential Sector. The PAs will continue to work on achieving the heat pump goals in the Term Sheet for both Sectors, supported by robust incentives and a fuel neutral approach to customer education. And efforts to increase services to historically underserved customers will be a strong focus in 2021 due in large part to the increased scrutiny and stakeholder input resulting from the work of the Equity Working Group.

The Consultants' work this year will have two primary focuses:

- Working with the PAs and LEAN to support their successful achievement of their commitments and goals in the final year of the 2019-2021 Plan Term and tracking, assessing, and reporting to the EEAC on progress in doing so, and
- Conducting quantitative analysis, best practices research, and other work required to support the Council and the PAs in crafting and approving a Plan for 2022-2024 that achieves the Council's priorities.

## Work Areas

### PLANNING, TECHNICAL, ANALYTICAL, AND STRATEGIC SUPPORT FOR IMPLEMENTATION OF THE 2019-2021 PLAN

- Track, provide input on, and report on PA progress towards meeting 2019-2021 Plan goals and

commitments, including:

- Energy optimization: monitoring PA progress in developing the online calculator and expansion of the philosophy to water heating, new construction and retail HVAC efforts
  - Rollout of home energy scorecards
  - Renovations and additions: advance further inroads into this market to better tap savings opportunities—7% of homes in MA undergo renovation in which there's an energy savings opportunity
  - Enhancing services to multifamily customers, both property owners and tenants
  - Meeting heat pump unit goals from the 2019-2021 Term Sheet
  - Expanding residential and implementing income eligible active demand management offers to increase demand savings and shift peak loads
  - Increasing participation and savings by renters, moderate income customers, and limited English proficiency customers
- Continue work to assess and address program impacts resulting from the circumstances of COVID-19
- Review impacts on participation and savings
  - Determine effectiveness of PA efforts such as enhanced incentives and virtual assessments
- Review and assess 2021 work efforts stemming from recent significant PA RFPs
- Online assessments
  - Workforce
- Determine, assess and provide input on PAs' transition plans for retail and direct install lighting
- Review and assess Eversource's new plans for behavioral approaches; research opportunities to improve other PAs' behavioral approaches
- Work collaboratively with PAs and LEAN to provide support for 2021 IES efforts to:
- Increase production to make up for 2020 COVID-19 production losses, including a sustained focus on workforce capacity development
  - Increase installation of heat pumps by
    - developing heat pump assessment capability within each CAP
    - developing standardized protocols for heat pump installation in different IES building types
  - Increase installations of WiFi thermostats by developing standardized protocols for different IES building types
  - Gather data and analyze differences in CAP capabilities, capacities, resources, and performance to inform DOER and LEAN about potential strategies for IES to be delivered more uniformly throughout the State
  - Provide analytic support to determine appropriate strategic direction for IES support of fossil fuel heating
- Review and analyze residential and income eligible information and data in the PAs' monthly data dashboards, quarterly reports, and periodic reporting on relevant indicators and other term sheet commitments. Use data to identify trends, successes and challenges, and PA differences and to support 2022-2024 planning work

## **PLANNING, TECHNICAL, ANALYTICAL, AND STRATEGIC SUPPORT FOR DEVELOPMENT OF THE 2022-2024 PLAN**

- Conduct research and analysis necessary to support translation of Council priorities for the 2022-2024 into actionable strategies for inclusion in 2022-2024 Plan, including:
  - Increasing production numbers and providing additional support for heat pumps and heat pump water heaters in both Sectors
  - Developing an all-electric offer for the New Homes Program
  - Developing a program approach that bundles weatherization and heat pump installation
  - Ceasing support for certain fossil fuel space and water heating incentives
  - Advancing new partnership models as a method for better serving renters, moderate income customers, and limited English proficiency customers
  - Workforce development efforts that address the Council's multiple priorities
  - Increasing effectiveness of efforts to enroll rental property owners in Mass Save

## **PARTICIPATE IN RESIDENTIAL MANAGEMENT COMMITTEE, COUNCIL, LOW INCOME BEST PRACTICES AND EQUITY WORKING GROUP MEETINGS**

- Participate in RMC meetings twice per month, with a two-fold focus: 1) discussing progress and providing support to PA efforts to achieve their commitments for the 2019-2021 Plan Term, and 2) collaborating on how Council priorities for the 2022-2024 Plan Term can be developed for implementation and inclusion in the Plan. While schedule of focused topics for discussion will be developed with the RMC in January, the list of topics is expected to track the above list of Council priorities.
- Participate in Council meetings with a residential and income eligible focus, including preparing meeting materials as appropriate, reviewing PA draft presentations, and briefing Councilors.
- Participate in monthly Low Income Best Practice meetings and provide support for new and continuing initiatives of group
- Participate in Equity Working Group meetings and support work of group with best practices research, compilation of relevant information, and other preparations as requested by the Group and its co-chairs
  - Support transition the Equity Working Group from ideation and goal-setting to prioritization and implementation strategy, including 2021 implementation efforts related to short-term Equity Working Group goals, such workforce development and heat pumps

## **COORDINATE WITH EM&V EFFORTS**

- Identify priority Residential and Income Eligible research needs for inclusion in 2022-2024 Strategic Evaluation Plan; coordinate with EM&V Group and PAs to provide input on same
  - Determine if full market characterization of multifamily market should be conducted, and provide support as needed for successful, actionable results.
  - Determine EM&V research required to support Equity Working Group's recommendations
- Review draft study reports and provide input to ensure they will yield useful and actionable information to assess and enhance implementation efforts
  - Priorities include RCD Virtual Assessment Study, New Construction Energy Optimization Cost Study, and Heat Pump Fuel Displacement Process and Impact Study
- Identify outcomes and recommendations in final studies and reports that should prompt responsive actions by PAs and determine whether they are being implemented
  - Assess implications of final net-to-gross and impact evaluations for new construction, smart and programmable thermostats, and heat pump fuel displacement

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## COMMERCIAL AND INDUSTRIAL

### Context

The Commercial and Industrial sector has experienced several evolutionary changes as markets have transformed, technology has advanced, and evaluation practices have been updated. Recent evaluations from other states (namely Rhode Island) and preliminary results in Massachusetts indicate falling net claimable savings from LED products. These trends have been known and identified to the council over the course of 2019 and 2020, and the consultant team continues to stress the urgency of pivoting C&I programs to non-lighting savings measures. The Program Administrators will need to focus on engaging with customers to complete more comprehensive, multiple end-use projects in order to sustain significant savings, particularly from HVAC systems, building envelope and other process/plug-loads. This engagement will require ongoing and stronger partnerships with market actors such as the architects, engineers, contractors, building operators, technicians and distributors in Massachusetts and neighboring states. There is opportunity for increased focus on the use of controls on new HVAC equipment (notably including fully electric heat pump technologies like VRF, ASHP, GSHP, etc.), retro-commissioning and updating the controls for existing equipment and claiming savings from operational and behavioral savings. Energy Optimization is not well defined with respect to the C&I market, so putting this “Philosophy” into practice will require close monitoring to ensure appropriate market engagement and claiming of savings. In addition, demand response and active demand reduction should be further integrated into efficiency program delivery channels to leverage mutually supporting results in order to achieve goals.

### Work Areas

The C&I Consultant Team anticipates a continuation of work in a few key areas of activity:

#### PLANNING, TECHNICAL, ANALYTICAL, AND STRATEGIC SUPPORT FOR IMPLEMENTATION OF THE 2019-2021 PLAN

- Track, provide input on, and report on PA progress towards meeting 2019-2021 Plan goals and commitments, including:
  - Energy optimization: monitoring PA progress in developing new prescriptive heat pump measures for small commercial customers
  - Work with PAs to review initial findings from the Strategic Energy Management demonstration project cohorts
  - Meeting heat pump unit goals from the 2019-2021 Term Sheet
  - Expanding C&I demand management offers to increase demand savings and shift peak loads
  - Increasing participation and savings by small and micro businesses, and delivering increased non-lighting savings
  - Successfully launching the redesigned the New Construction paths 1 & 2 based on energy use intensity (EUI)
- Continue work to assess and address program impacts resulting from the circumstances of COVID-19
  - Review impacts on participation and savings
  - Determine effectiveness of PA efforts such as enhanced incentives and virtual assessments
  - Continue to support the development of emergency EM&V protocols, baselines and measure development for school HVAC measures that provide energy efficient provision of improved indoor air quality

#### PLANNING, TECHNICAL, ANALYTICAL, AND STRATEGIC SUPPORT FOR DEVELOPMENT OF THE 2022-2024 PLAN

- Conduct research and analysis necessary to support translation of Council priorities for the 2022-

2024 into actionable strategies for inclusion in 2022-2024 Plan, including:

- Increasing production numbers and providing additional support for heat pumps (air-source, ground-source, VRF, etc.) and heat pump water heaters in the commercial sectors
- Delivering weatherization and HVAC measures to small and micro businesses
- Advancing new partnership models as a method for better serving commercial renters, small and micro businesses and limited English proficiency customers
- Workforce development efforts that address the Council's multiple priorities
- Increasing effectiveness of efforts to enroll rental property owners in Mass Save

#### **TECHNICAL SUPPORT FOR PROGRAM STRATEGIES AND SEGMENTATION**

- Analyze historic and current program performance to identify trends, opportunities, and deficiencies, including:
  - Small Business/Turnkey Initiative participation, savings, and comprehensiveness, including beginning to implement Small Business recommendations from the Equity Working Group
  - New construction program improvements, including performance-based design (utilizing Energy Use Intensity or "EUI"), zero net energy, and Passive House
  - Strategic energy management (SEM) pilot results, expansion to additional cohorts, consideration of new market segments, and review of proposed methodology to claim savings.
  - Lighting with a strong focus on controllable technologies and customer education
  - Custom HVAC projects including replace-on-fail measures retro-commissioning, energy management system and system optimization participation and savings
  - Newly launched Equipment System Performance Optimization (ESPO) low/no cost prescriptive measures, as well as custom and monitoring-based commissioning (MBx) participation and savings
  - Manufacturing, industrial, telecommunications, cannabis cultivation and other custom process participation and savings
  - Technical assistance and training for contractors and distributors, especially with respect to lighting and HVAC controls
  - Cost-effective building envelope measures in all size commercial customers, with an initial emphasis on small business
  - Combined Heat and Power savings and project size, including support for alternative fuel systems
  - Demand and storage program performance
  - Energy Optimization and fuel switching, including air and ground-source heat pumps and variable refrigerant flow (VRF) systems in both new construction and existing buildings
  - Continued focus on the impact of COVID-19 on ventilation practices in commercial spaces
  - Workforce development issues relevant to C&I buildings with a particular focus on ensuring new, dynamically controlled energy efficient equipment is properly installed, operated and maintained in order to deliver on estimated savings

#### **IDENTIFY AND REVIEW NEW TECHNOLOGIES**

- Identify new or underperforming technologies/measures such as Energy Management Systems

(EMS)

- Advise on new technologies and the potential for savings and integration into the programs by working with the Massachusetts Technology Assessment Committee
- Track trends in measure adoption to identify opportunities for changes and improvements to the programs to encourage either a systems or multi-measure approach.
- Advise on implementation strategies to help adoption of underperforming technologies and revisit how PAs engage the market on promising technologies that have not seen significant program participation yet

#### **PARTICIPATE IN CIMC, COUNCIL AND OTHER RELEVANT CALLS AND MEETINGS**

- Facilitate the Open Agenda period of biweekly CIMC meetings
- Assist ongoing C&I stakeholder engagement discussions including new C&I councilor onboarding
- Prepare and deliver presentations for the CIMC
- Report on the impact of CIMC discussions to the Council
- Participate in C&I focused EEAC meetings, including preparing meeting materials as appropriate, reviewing PA draft presentations, and briefing Councilors. Much of the content for the meeting will be drawn from the lighting whitepaper.
- Participate in Equity Working Group proceedings relevant to C&I customer segments such as small business, municipalities, and non-profits, as well as relevant workforce development issues

#### **COORDINATE WITH EM&V EFFORTS**

- Provide direction and guidance in the planning of EM&V studies to ensure necessary data is collected, useful data is reported, and the Council can be confident in reported savings values with a special focus on new technologies and approaches (Ex – heat pumps and SEM, respectively) where methods of claiming savings are actively being developed
- Provide comments on draft reports to improve the quality of the work product
- Review studies and reports, and follow up with the PAs to determine if recommendations from evaluations are being incorporated into the programs
- Identify technologies or approaches that may need additional research and/or studies to inform the 2022-2024 plans (Ex – conduct a dedicated CHP impact evaluation, which has not been done since 2012)
- Identify and help prioritize non-energy impacts (NEIs) in need of study to support measures with low or marginal cost-effectiveness (Ex – NEIs for C&I weatherization, improved ventilation and other benefits not currently claimed that could support important measures)
- Participate in the implementation of the Baseline Framework including the establishment of the mutually agreed upon baselines, and dual baselines process and protocols
- Participate in ongoing discussions between PA implementers and EM&V team on efficiency opportunities and regulatory requirements for cannabis growing facilities
- Participate in ongoing cross-functional meetings between PA implementers, evaluators and evaluation consultants on the impacts of COVID-19 on business practices with a particular focus on changes ventilation and other health and safety equipment (Ex – portable air purifiers)
- Produce memos or presentations as requested by the Council

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## EVALUATION, MEASUREMENT, AND VERIFICATION

### Context

Our work in the area of Evaluation, Measurement, and Verification (EM&V) continues 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. While we must work closely and collaboratively with the PAs, the resolution specifies that if consensus cannot be reached between the PAs and the Council Consultant, decision-making authority (subject to a system of appeals) rests with the Council Consultant as the Council's agent.

The high-level EM&V research agenda for the current program cycle was established through the 2019-2021 Strategic Evaluation Plan (SEP), which was developed in late 2018. However, the SEP laid out specific studies to be performed only through 2019, so planning of additional new studies will be an ongoing activity in 2021. In addition, a key EM&V planning activity in 2021 will be the development of a new SEP to guide EM&V activities for 2022-2024.

Specific EM&V research objectives in 2021 include:

- Developing and implementing EM&V research in support of the Council's priorities regarding customer equity and strategic electrification. Continuing to refine approaches to evaluate active demand response initiatives.
- Continuing to build a mature framework for savings claims from market effects and the promulgation of new codes and standards provisions.
- Evaluating newer initiatives, including Energy Optimization and Strategic Energy Management (SEM).
- Working with the PAs on EM&V aspects of the required potential savings studies as part of the planning process for the 2022-2024 Plan.
- Developing additional studies as needed to support the evolution of programs, policies, and markets.

We will work with DOER and the Council to determine the specific studies to be covered.

### Work Areas

#### OVERSEE EM&V PLANNING

- Continue to adapt the EM&V program to the quickly changing research needs and constraints imposed by the Covid-19 pandemic. The pandemic has had a significant effect both on EM&V research objectives (for example, by leading to changes in the handling of business operational characteristics and ventilation measures for impact accounting purposes) and in research methods (for example, by limiting on-site visits). It is highly likely that the need for such changes will continue in 2021, although the specific course the changes will take is hard to predict.
- As needed, adapt the EM&V program to comply with any changes to EM&V-related policy rules that may result from the DPU's investigation to revise its energy efficiency guidelines. The order opening the investigation suggests the potential for a move toward all impact parameters being updated prospectively only, on an annual basis. Such a change would allow for significant changes to the EM&V program's approach to the staging of studies, particularly attribution-related ones.
- Work with the PAs to develop a 2022-2024 SEP. The SEP is intended to lay out the overall objectives and strategic priorities of the EM&V program, along with an initial slate of studies to be completed in 2022. The SEP process will kick off with a series of planning workshops held in

January and February. A first draft of the SEP is scheduled for completion in March and a final draft for August, in time for the first draft and the final draft of the three-year plan, respectively.

- Plan new EM&V studies as needed to support impact reporting, program planning and implementation, and policymaking. Planning for individual EM&V projects focuses on refining research objectives, determining data collection and analysis activities, setting budgets, assigning contractor staff, and laying out project schedules. In order to ensure consensus and maximize opportunities for stakeholder input, the planning process for individual studies includes three separate planning stages from the time a study is conceived to the time it is implemented.

#### **OVERSEE EM&V STUDY IMPLEMENTATION**

- Oversee the implementation of individual EM&V studies once they have completed the detailed planning stage. EM&V study implementation can include a wide range of data collection and analysis activities, the specific nature of which varies by type of study. Each study can have as many as eight stages from draft scope to survey instruments to draft and final reports.

#### **OVERSEE EM&V REPORTING**

- Oversee the development and dissemination of interim and final reports on EM&V studies. Final EM&V reports in Massachusetts generally need to go through multiple drafts, as various stakeholders provide comments that must be processed collaboratively. This work area also encompasses overseeing the incorporation of impact evaluation results into the eTRM.

#### **COUNCIL AND STAKEHOLDER ENGAGEMENT**

- Work with the Council, individual Councilors, and stakeholders, both to incorporate their input into EM&V plans and reports and to brief them on study results through presentations and other forms of outreach. We plan to give one overall presentation on EM&V issues to the Council during this contract period.

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## **TECHNICAL SERVICES**

### **Context**

The Technical Services team is responsible for a variety of administrative tasks that support the Council's information sharing through the website including production of the Annual Report to the Legislature. These tasks are described in more detail below.

### **Work Areas**

#### **PRODUCE MINUTES FROM ALL EEAC MEETINGS**

- Ensure meeting minutes are collected from all EEAC and EEAC Executive Committee meetings subject to the open meeting law and that these minutes are circulated for comment, corrected, and issued in final form for posting to the EEAC website. We note that for budgeting purposes, the minute taking will be included in the "Council Meetings" budget category.

#### **WEBSITE UPDATES, REVISIONS, AND MAINTENANCE**

- Regular and timely updates of the website content.
- Make changes or expansions in structure or organization of the website that were identified by the Council. These will include updates such as improving the search functionality, refreshing website images, and allowing for more streamlined public comment.

#### **CONSULTANT TEAM QUARTERLY REPORTS AND WORK PLANS**

- Provided timely and meaningful report of Consultant Team activities. The Consultant Team will produce activity reports on a quarterly basis.
- In 2021, the Consultant Team will also continue developing quarterly work plans. These plans will act as an update to this annual work plan as well as provide more granularity around anticipated

tasks and deliverables as the year progresses.

**SUPPORT DEVELOPMENT OF THE ANNUAL REPORT TO THE DPU AND LEGISLATURE**

- In coordination and cooperation with DOER, we will support development of the most recent Annual Report to the DPU and Legislature.

**KNOWN DELIVERABLES**

As previously noted, it has been helpful in previous years to we retain flexibility to respond to the Council and as other topics/issues arise. However, there are also many known deliverables we intend to complete in 2021. The sections below provide details on those known work products. We expect that schedules may change over time and will provided an updated list of known deliverables in each of the Consultant Team’s quarterly work plans.

Month	Category	Topic	Description	Advisory Group(s)
<b>January</b>	Memo	2021 Work Plan	Describes Consultant Team tasks, deliverables, and budget for 2021	All
	Presentation	2021 Work Plan	Summarizes Consultant Team tasks and deliverables for 2021	All
	Presentation	AESC study results	A presentation summarizing the results of the AESC study and potential considerations for the Three-Year Plan.	Planning & Analysis
	Memo	C&I ventilation baselines	A memo jointly drafted by EEAC consultants, PAs and evaluators on changes in baseline ventilation rates resulting from the COVID-19 pandemic	C&I, EM&V
<b>February</b>	Memo	Consultant Team Quarterly Report	Report on Consultant Team activities for Q4 of 2020.	All
<b>March</b>	Presentation	PA Q4 Report	Observations on KPIs, PA differences, areas PAs not on track to meet goals or council priorities	P&A Residential C&I
	Presentation	Assessment of Potential	A presentation on the results of the Consultant Team Assessment of Potential	Planning & Analysis
<b>April</b>	TBD	TBD	TBD	TBD
<b>May</b>	Presentation	April Draft 2022-2024 Plan	Summary of Consultant Team assessment of draft plan including goals, budgets, cost-effectiveness, etc.	All

<b>June</b>	Presentation	2021 Q1 Report	Observations on KPIs, PA differences, areas PAs not on track to meet goals or council priorities	P&A Residential C&I
<b>July</b>	TBD	TBD	TBD	TBD
<b>August</b>	TBD	TBD	TBD	TBD
<b>September</b>	Presentation	2021 Q2 Report	Observations on KPIs, PA differences, areas PAs not on track to meet goals or council priorities	P&A Residential C&I
<b>October</b>	TBD	TBD	TBD	TBD
<b>November</b>	TBD	TBD	TBD	TBD
<b>December</b>	Presentation	2021 Q3 Report	Observations on KPIs, PA differences, areas PAs not on track to meet goals or council priorities	P&A Residential C&I
<b>On-Going</b>	Tracking Spreadsheet	EM&V Status Update	A spreadsheet summarizing the status of current and planning EM&V studies	EM&V

## PROPOSED BUDGET

When the Consultant Team put together its proposal for the current three-year contract, we used our experience from past cycles to determine the relative weighting of the budget between years. We put the most weight on 2021 as the year the Three-Year Plan is delivered has traditionally required the most work. We proposed spending \$1.557M in 2020 and \$1.852M in 2021. In 2020, unforeseen work related to the pandemic has stretched our budget. We also moved several tasks that we would have done or largely done in 2021 to 2020. These included the avoided cost study (AESC), the Consultant Team assessment of potential, and a variety of working groups assembled for planning this fall. As a result, the budget we are requesting for 2021 (\$1.77M) is less than the amount originally included in our proposal to reflect the shift of work to 2020. To the extent that we have budget remaining from 2020 at the end of the year, we would like the opportunity to move that budget back into our 2021 amount. Much of the work that was started earlier than expected, such as the AESC and assessment of potential, will continue into 2021

**YEAR 2 - 2021**

	Staff	Role	Strategic Planning	Planning & Implementation	Oversight of EM&V	Coordinate Technical Services	Total Hours
Optimal Energy, Inc.	Eric Belliveau	Principal in Charge	580	230	50	100	960
	Gretchen Calcagni	Project Manager and Technical Services Lead	580	275	50	200	1,105
	Phil Mosenthal	SME: Codes and Standards, Policy	50	40			90
	Matt Socks	SME: AESC Study, Potential Studies, TRM	100	535			570
	Elizabeth Chant	SME: Low Income/Equity	115	100			215
	Adam Jacobs	C&I Lead	585	275			860
	Senior Analyst	Senior Analytic Support	100	100		100	300
	Analyst	Analyst Support	100	100		100	289
	April Clodgo	Contract Administrator & Technical Services Core Member				100	100
Individuals	Jeff Schlegel	SME: Active Demand, Avoided Cost study, ISO issues, Policy	235	10			245
	Caroline Hazard	Residential and Low Income Core Member	115	110			225
	Ralph Prah	EM&V Lead			950		950
	Bob Wirtshafter	EM&V Core Member			300		300
	Michael Rufo	SME: GHG strategies, Active Demand, CA best practices	55	35	60		150
	George Lawrence	C&I Core Member	75	75			150
	Crystal Johnson	SME: Low Income/Equity	125	125			250
	Other Consultants (TBD)	SME TBD if necessary (average projected rates)	80	40			120
AEC	Lori Lewis	EM&V Core Member			180		180
Cahoots	Carol Lasky	SME: Website and Graphic Design				70	70
	Design Support	SME: Website and Graphic Design				75	75

<b>CEI</b>	<b>Margaret Lynch</b>	<b>Residential and Low Income Lead</b>	440	300			740	
<b>CX</b>	<b>Jennifer Chiodo</b>	<b>C&amp;I Core Member and EM&amp;V Core Member</b>	190	80	190		460	
<b>EFG</b>	<b>Glenn Reed</b>	<b>Residential and Low Income Core Member</b>	165	145			310	
	<b>Chris Neme</b>	<b>SME: Planning and Analysis</b>	50	25			75	
	<b>Dan Mellinger</b>	<b>SME: Lighting</b>	80	50			130	
<b>SP</b>	<b>Sean Becker</b>	<b>SME: Energy Storage and ADR</b>	125	75			200	
<b>TOTALS</b>			<b>Hours</b>	<b>3,945</b>	<b>2,725</b>	<b>1,780</b>	<b>745</b>	<b>9,195</b>
			<b>Amount (Labor)</b>	<b>\$764,565</b>	<b>\$520,025</b>	<b>\$358,650</b>	<b>\$114,450</b>	<b>\$1,757,690</b>
			<b>Amount (Travel)</b>	<b>\$6,000</b>	<b>\$6,000</b>	<b>\$2,000</b>	<b>\$500</b>	<b>\$14,500</b>
			<b>Total 2021 Amount</b>	<b>\$770,565</b>	<b>\$526,025</b>	<b>\$360,650</b>	<b>\$114,950</b>	<b>\$1,772,190</b>