Memo

MA ENERGY EFFICIENCY ADVISORY COUNCIL

→ CONSULTANT TEAM

To: **Energy Efficiency Advisory Council**

From: **Eric Belliveau and the Consultant Team**

Date: **March 30, 2023**

Subject: **DRAFT--EEAC Consultant Team Proposed 2023 Work Plan and Budget Request**

SUMMARY

Strategy for this Work Plan

The Consultant Team expects much of its focus in 2023 to be forward looking to support the development of 2025-2027 Plan. We will also continue to track and report on PA progress towards 2022-2024 goals and Council priorities include electrification and GHG reductions, equity, and workforce development, among others.

As in the past, our work is divided into several advisory groups, representing the major areas of effort across the entire range of Consultant Team 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. For budget tracking purposes, these tasks will be tracked against the budget categories submitted as part of the Consultant Team's response to the RFR for Council technical services. The Consultant Team will also be developing quarterly work plans during 2023 that will accommodate EEAC priorities not covered in this plan as necessary. We have included a separate deliverables section as well as a timeline of when these deliverables are expected to be completed but note that we retain flexibility to respond to the Council and as other topics/issues arise. Specific deliverables will also be included in each Consultant Team quarterly work plan. The Consultant Team's contract begins April 2023 and the budget described in this work plan reflects a 9-month period through December 2023.

One task that will cut across all advisory group areas will be supporting the development of the 2025-2027 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 2025-2027 Strategic Evaluation Plan (SEP) and supporting the Avoided Energy Supply Cost Study (AESC), are covered in their respective sections.

THREE YEAR PLANNING

As previously stated, the 2025-2027 planning process will begin in 2023. We 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 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.

Since all advisory groups will be involved in these efforts, we've provided the table below to summarize the planning process activities and deliverables we expect to occur in 2023. We note that given the revised timeline for PA Plan submission as well as determination of the Plan GHG reduction goal, the majority of planning activities will need to be completed earlier that previous planning cycles. Rather than spanning calendar years, the bulk of the planning process

work will need to take place in 2023 to ensure the Council and other interested stakeholders have sufficient time to provide input to the plan and its numeric goals. A key input to the planning process is the PA potential studies. Given the condensed planning timeline, the Consultant Team's expectation is that the PAs will share draft results and inputs earlier in the study process to ensure understanding and agreement when the draft reports are shared with the Council. In the event that information is not shared in advance, additional resources may be needed to provide input on potential savings and GHG reductions to support goal development The Consultant Team will be developing a more detailed schedule in collaboration with DOER and the PAs.

Activity/Milestone	Description	Task/Deliverable	Timeframe
Planning Workshop Briefing Documents	Research and analysis of several topics relevant to 2025-2027 planning	Memos on each individual topic, as well as summary documents covering key topics for discussion and issues that may impact planning	June-Dec 2023
Planning Workshops	Workshops on planning topics	Assist the facilitator by adding to the workshop summary content two weeks after the last workshop. Review draft recommendations based on councilor comments	June-Dec 2023
Listening Sessions	Public listening sessions held to solicit input on the Plan	Attend listening sessions to understanding broader stakeholder and community input on the Plan	August 2023
Review of PA Potential Studies	Consultant Team review and assessment of results of PA potential studies	Review of potential study inputs and materials	June-October 2023
Review of PA Potential Studies	Consultant Team review and assessment of results of PA potential studies	Memo or presentation on analysis of potential studies results and methodologies and recommendations for use in plan development	November-January 2023
Support AESC process	Provide input on methodology, draft results, and final report of AESC		June-Jan 2024
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		On-going 2023

PLANNING & ANALYSIS

Context

Our work in the area of planning and analysis will focus on several important Council support activities. These include:

- → Supporting the Council in its efforts to ensure effective program and portfolio performance and to achieve the 2022-2024 Three-Year Plan goals. This includes providing guidance related to new elements in the Plan.
- → Aiding the Council as it begins the process of outlining key elements of the 2025-2027 Three-Year Plan.
- → Reviewing and assessing the results of the 2022-2024 Three-Year Plan, including analyzing successes and missed opportunities.

- → 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 in Massachusetts.

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 2023 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.
- → Support new processes and subgroups of the Council as directed including the Data Request Process, C&I working group, and Equity working group.

TECHNICAL ANALYSIS

- → Support planning and analysis for implementation of 2022-2024 Plan; review and analyze results.
  - Review and analyze available information to guide implementation, evaluation, and reporting of new elements in the Plan such as electrification, GHG targets, work force development efforts, and equity metrics, 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 2023 and 2022-2024 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 and analysis, 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.
  - 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 and review draft work products for the Regional Avoided Energy Supply Component (AESC) avoided costs study and participate in the study group meetings with the PAs (and potentially with representatives from the participating states). Task includes review of past studies, participation in study group, and written and analysis output as needed.

- 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. We will review the benefit cost ratio (BCR) models inputs for consistency with the eTRM where applicable.

→ 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 and electrification and GHG reductions, equity, and workforce development, among others. 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 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.

→ Support additional proceedings that the Council wishes the Consultants to cover as they relate to the continued delivery of the Three-Year Plan.

ACTIVE DEMAND MANAGEMENT

Context

The PAs' 2022-2024 Plan includes an expansion of active demand offerings first made available statewide in the 2019-2021 Plan. Program enrolled active demand capacity from things like residential direct load control for Wi-Fi thermostats, and energy storage is expected to increase dramatically over the next three years. Commercial interruptible load curtailment programs will be going through a transition period as fossil fuel generators are phased out, and controls/operations-based curtailment strategies will become the core mechanism for larger customers to participate. The PAs made new commitments to deliver more Wi-Fi thermostats through IES programs, creating additional opportunities for these customers to participate in ADM offerings. The 2022-2024 Plan also provides new guidance for storage developers on daily dispatch's 5-year incentive lock, providing clarity to the market. In 2022 "An Act Driving Clean Energy and Offshore Wind" was signed into law, giving the PAs the ability to propose the integration of storage and renewables with efficiency and electrification in future plans. In 2023, the Active Demand Group will focus on ensuring this provision is appropriately considered during the planning process while also monitoring PA commitments in the 2022-2024 plan cycle pertaining to expanding active demand capacity in Mass Save.

Work Areas

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

→ Review and analyze available information to guide implementation, evaluation, and reporting of ADM elements of the Plan.

→ ADM supporting tasks will include:

- Coordinate with the Active Demand PA staff on the 2022 ADM results and planned efforts for the summer of 2023 through continued regular meetings.
- Coordinate with sector-specific consultant team members, PA staff, councilors, and external stakeholders on further integration of EE and ADM measure offerings through Mass Save.
- Support the PAs with identifying lessons learned from the ADM and daily dispatch field experience, results, and market feedback. Ensure new guidance on 5-year incentive lock is effectively communicated to the market.
- Track residential discount-rate enrollment through updated ADM reporting and ensuring PAs and LEAN market the Connected Solutions program to IES customers.

IDENTIFY AND REVIEW NEW OPPORTUNITIES AND EM&V IMPACTS

→ Complete review of the Active Demand EM&V results of 2022 study efforts.

→ Review work plans and evaluations proposed in the 2022-2024 Strategic Evaluation Plan; Planned studies include a combined impact/process evaluation of the C&I Curtailment Program as well as a Literature review of EE/DR integration in other jurisdictions.

→ Coordinate with the PAs on gas demand management opportunities and potential benefits and monitor PA gas demand response pilots initiated through other non-energy efficiency rate cases (EGMA and National Grid).

→ Advocate for potential LMI benefits for ADM in the next AESC.

→ Track progress on electric system investments that could require changes in 2025-2027 EEIP.

RESIDENTIAL AND INCOME ELIGIBLE SECTORS

Context

2023 will be a demanding year for the Mass Save Residential and Income Eligible Sectors as the PAs and LEAN strive to implement ambitious electrification and equity commitments for the 2022–2024 Plan while beginning planning work for the 2025-2027 Term. While much of 2022 was spent developing or launching new initiatives, such as the all-electric new residential construction and affordable housing deep energy retrofit offers, 2023 will be a year in which there is a strong focus on achieving results.

The Consultants' work for the Residential and Income Eligible Sectors this year will have two primary focuses:

1. Working with the PAs and LEAN to support successful achievement of their commitments and goals in the second year of the 2022-2024 Plan Term and tracking, assessing, and reporting to the EEAC on progress in doing so. This will include an intensive focus on achievement of the heat pump installation goals in the Term Sheet and weatherization goals for both Sectors. In addition, the Consultants will continue to work to advance equitable delivery of Mass Save programs and services to all Residential and Income Eligible customers, with a specific focus on achievement of the Equity Targets negotiated with the PAs for the 2022-2024 Term.
2. Conducting quantitative analysis, best practices research, and other work required to support the Council and the PAs in the initial stages of planning for the new 2025-2027 Term in order to advance the Council's priorities.

Additional context, details, and work efforts are provided below.

Work Areas

RESIDENTIAL PROGRAM SUPPORT

In this second year of the 2022-2024 Term, the Mass Save Residential programs must adapt to the impacts of a variety of dynamics in the larger market place, including higher energy prices and inflation. Recent trends in program results show lower than planned volumes in production of Home Energy Assessments and weatherization jobs and higher than

planned heat pump installations, especially displacing gas. The impacts of the Inflation Reduction Act remain uncertain and will require close attention and proactive management over the course of 2023. The Consultants' work for the Residential Sector in 2023 will include the following:

- → Track, provide input on, and report on PA progress towards meeting 2022-2024 Plan goals and commitments, including:
  - Meeting heat pump installation goals from the 2022-2024 Term Sheet
  - Continued collaboration with the PAs regarding a market transformation strategy for heat pumps
  - Ongoing assessment and advancement of opportunities to improve promotion, education, and installation of heat pumps for space and water heating
  - Weatherizing as many homes as possible to reduce greenhouse gas emissions and prepare for electrification.
  - Advance alternative models for bundling weatherization and heat pumps
  - Enhancing services to multifamily customers—both property owners and tenants—with an emphasis on electrification of multifamily properties
  - Easing participation in residential programs through streamlining, reducing eligibility criteria, virtual tools, and other efforts
  - Maximizing opportunities to secure savings from residential appliances
  - Workforce development for new and existing workers including heat pump dedicated training and market transformation, Clean Energy Pathways, and PA workforce development collaboration status with MassCEC
- → Review status of PA efforts to claim behavioral savings and examine opportunities to leverage recent DPU approvals of advanced metering infrastructure
- → Advance opportunities to co-promote and leverage Inflation Reduction Act incentives and rebates with those of Mass Save
- → Transition production in new construction from gas and propane to electricity under the PAs' all-electric new construction offer
- → Monitor rollout of home energy scorecards
- → Conduct research and analysis necessary to support development of Council priorities and actionable strategies for the 2025-2027 Plan, including:
  - Continuing to advance program offers for electrification for all customers
  - Integrated delivery of weatherization and heat pumps
  - Transitioning altogether away from fossil fuel heating
  - Streamlining customer participation pathways
  - Advancing new uses of technology for targeting, customer experience, and cost efficiency
- → Review and analyze residential information and data in the PAs' monthly data dashboards, quarterly reports, Term Report and periodic reporting on relevant indicators and other term sheet commitments as well as any ad hoc reports. Use data to identify trends, successes and challenges, and PA differences
- → Participate in RMC meetings twice per month to discuss progress and provide support to PA efforts to achieve their commitments for the 2022-2024 Plan Term. The schedule of focused topics for discussion will be developed with the RMC in Q1 and is expected to track Council priorities for 2023
- → Participate in Council meetings with a residential focus, including preparing meeting materials as appropriate, reviewing PA draft presentations, and briefing Councilors

INCOME ELIGIBLE PROGRAM SUPPORT

With the underachievement of goals for the sector in the 2019-2021 Term, the Consultants will continue to bring increased attention to commitments and performance of the Income Eligible Sector in 2023. Electrification efforts for this sector are proving to be particularly challenging and will be closely scrutinized. The Consultants' work for the Income Eligible Sector in 2023 will include the following:

- → Work collaboratively with PAs and LEAN to provide support for 2023 IES efforts to:
  - Increase production to make up for 2020 and 2021 COVID-19 production losses, including a sustained focus on workforce capacity development
  - Increase installation of heat pumps for space and water heating
  - Gather data and analyze differences in CAPs to inform potential strategies for IES to be delivered more uniformly throughout the Commonwealth
  - Increase installations of WiFi thermostats and other technology to support ADM, including by developing standardized protocols for installation of WiFi thermostats for different IES customers and building types
  - Develop a dedicated IES offer for battery storage
  - Provide analytic support to determine appropriate strategic direction for IES support of fossil fuel heating
  - Assess initial results for new affordable multi-family decarbonization/deep energy retrofit offering with a customized approach for income-eligible/affordable multi-family buildings going beyond a typical retrofit
  - Implement strategies, including a mixed income protocol for multi-unit buildings, to ensure that customers living in small multifamily buildings are equally and comprehensively served
  - Expand the pool of contractors serving the IES program while smoothing the path of access for the customer
- → Conduct research and analysis necessary to support development of Council priorities and actionable strategies for the 2025-2027 Plan, including:
  - Continuing to advance electrification for all customers
  - Phasing out support for lighting and fossil fuels
  - Assessing and improving equitable service to low income customers
  - Implementing continuous improvements in co-delivery of federal and Mass Save funds
- → Review and analyze income eligible information and data in the PAs' monthly data dashboards, quarterly reports, and periodic reporting on relevant indicators and other term sheet commitments as well as any ad hoc reports. Use data to identify trends, successes and challenges, and PA differences
- → Participate in Council meetings with an 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 regular Income Eligible meetings with DOER to discuss progress and provide support
- → When appropriate, participate in and provide support for regular DOER/LEAN meetings

EQUITY

This work plan category was added in 2022 to reflect the focus on equity in the 2022-2024 Plan. The 2022-2024 Plan includes ambitious PA commitments to improve equity of service, including a robust set of Equity Targets. Equity issues apply to all sectors (Residential, Income Eligible, and C&I), though this section of the Work Plan applies specifically to Residential and Income Eligible Sectors. The Consultants' work in 2023 for the Equity work area regarding Residential and Income Eligible Sectors will include the following:

- → Work with the PAs and their partners to improve results for moderate income customers
- → Monitor and assess progress in executing the commitments of the Strategic Renters Plan and in developing a Language Access Plan
- → Monitor and assess Community First partnership program as well as efforts to foster alternative partnership models
- → Monitor and assess efforts to develop and support a diverse workforce
- → Conduct research and analysis necessary to support development of Council priorities and actionable strategies for the 2025-2027 Plan
- → Participate in Equity Working Group meetings and support group with best practices research, compilation of relevant information, and other preparations as requested by the Group and its co-chairs
- → Review, analyze/assess, and report on PAs' reporting of progress toward achieving the Equity Targets
- → Review, analyze/assess, and report on other regular PA reporting on equity matters (monthly, quarterly, biannual, annual, Term and ad hoc)
- → Participate in Council meetings with an equity focus, including preparing meeting materials as appropriate, reviewing PA draft presentations, and briefing Councilors

COORDINATE WITH EVALUATION MEASUREMENT & VERIFICATION (EM&V) EFFORTS

- → Contribute research priorities for the Strategic Evaluation Plan
- → Regularly coordinate with EM&V Advisory Group to exchange updates on relevant work efforts
- → Review draft study reports and provide input to ensure they will yield useful and actionable information to assess and enhance implementation efforts
- → Identify outcomes and recommendations in final studies and reports that should prompt responsive actions by PAs and determine whether they are being implemented effectively.

COMMERCIAL AND INDUSTRIAL SECTOR

Context

The 2023 Plan year, the second of this transformational Three-Year Plan, is critical for the Commercial and Industrial (C&I) sector as the PAs struggle to engage C&I customers in the multiple new offerings developed and launched late in 2022 to achieve the ambitious portfolio goals. C&I Deep Energy Retrofit, C&I New Construction (based on energy-use intensity), and enhanced weatherization incentives for small business rental customers are all priorities for the Council and performance results will be forthcoming only in May of Plan Years 2 and 3. C&I lighting savings from controls remain a challenge. To achieve plan goals the PAs will need to accelerate the transformation of the HVAC and refrigeration markets with an emphasis on larger and more complex projects, commissioned controls, larger electric heat pumps and variable refrigerant flow systems, and tighter building envelopes. In addition to new incentives, the PAs will need to provide greater assistance and enhance communication to help customers and their technical and implementation contractors navigate the programs more easily. Comprehensive identification of energy efficiency opportunities and accurate evaluation of savings is a critical input in making the business case for C&I stakeholders to prioritize energy and carbon reduction strategies as prudent and climate-forward investments. The newly formed C&I Working Group provides a bi-directional forum for the PAs to learn directly from the market and to provide guidance to market participants about directional changes in the Mass Save program. Additional details and work efforts are provided below.

Work Areas

The C&I Consultant Team anticipates a continuation of work with the DOER and the PAs in a few key areas of activity:

C&I PROGRAM SUPPORT

- → Track, provide input, and report on PA progress towards 2022-2024 Plan goals and commitments, including but not limited to:

- Monitor PA progress in developing new heat pump incentive offerings for customers of all sizes and baseline fuels; monitoring PA progress in educating customers about non-HP opportunities for electrification, particularly in the Industrial & Manufacturing sectors
- Monitor PA progress in capturing projects that contribute to Green House Gas reduction goals and communicating the relationship between energy savings progress and this target
- Document areas where the need for more BCR measure-level data in Quarterly PA reporting is essential to accomplish this tracking for HVAC in Large C&I,
- Meet heat pump unit benefit goals from the 2022-2024 Term Sheet including displaced fossil fuel usage and square footage electrified
- Monitor PA progress in marketing and processing customer applications for Deep Energy Retrofits offering; monitor PA efforts to establish Energy Star Portfolio Manager accounts (or equivalent) for Term Sheet commitments about tracking data for these participants
- Expand C&I demand management offers to increase demand savings and manage peak loads
- Monitor and support PA increased contractual requirements for Small Business Turnkey vendors to develop and install comprehensive lists of efficiency measures for these customers
- Increase participation in lighting controls-focused efficiency measures
- Increase participation in Building Management Systems & Controls (BMS), Equipment System Performance Optimization (ESPO), and Monitoring-Based Commissioning (MBCx) offerings for existing buildings
- Expand the volume of weatherization (Wx) projects that are completed for Small Business customers and ensuring that they are done in conjunction with electrification projects

→ Analyze historic and current program performance to identify trends, opportunities, and deficiencies, including:

- Electrification and fuel switching HVAC projects, including air and ground-source heat pumps and variable refrigerant flow (VRF) systems in both new construction and existing buildings
- Electrification and fuel switching for non-HVAC projects, including process equipment upgrades in manufacturing facilities
- Technical assistance and training for contractors and distributors, especially with respect to HVAC, building envelope, and electrification projects
- Custom HVAC projects including early replacement and replace-on-fail measures, retro-commissioning, energy management system and system optimization
- Delivery of lighting projects with controls and finishing the conversion of the Commonwealth's streetlighting to LEDs, the latter with wireless controls
- BMS, ESPO, and MBCx participation and savings
- New construction offerings, including performance-based design, zero net energy, and Passive House

→ Participate in C&I Management Committee (CIMC) meetings twice per month to discuss progress and provide support to PA efforts to achieve their commitments for the 2022-2024 Plan Term. This also includes associated meetings with Subject Matter Experts (SMEs) ahead of the regular CIMC meetings and periodic coordination calls with the CIMC Co-Chairs. The schedule of focused topics for discussion was developed with the CIMC in January and tracks Council and DOER priorities for 2023.

→ Participate in C&I Working Group (CIWG) proceedings, including C&I Stakeholder Hours. Support DOER, PAs, the EEAC and external C&I stakeholders to ensure the CIWG provides the necessary forum to develop collaborative program enhancements in the key areas of custom project processing, electrification, and deep energy retrofits as noted in the Council's July 2021 Resolution regarding alternative implementation models and as prioritized by the founding members of the CIWG in their 2022 meetings

→ Participate in weekly meetings with DOER to review PA and C&I program progress, quarterly and annual

PA reports, CIWG action items, and other topics as requested by DOER C&I lead.

- → Participate in Council meetings with a C&I focus, including preparing meeting materials as appropriate, reviewing PA draft presentations, and briefing Councilors.

EQUITY

This category for the work plan reflects the increased significance and volume of this work area in the 2022-2024 Plan and for the Consultants. Equity issues apply to all sectors (Residential, Income Eligible, and C&I), though this section of the Work Plan applies specifically to the C&I Sector. The Consultants' work in 2023 for the Equity work area for C&I will include the following:

- → 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
- → Drive adoption of cost-effective building envelope measures in all size commercial customers, with an initial emphasis on small business per Equity Targets and through new-in-2022 PA offerings to engage those small business customers and the workforce that serves them
- → Increase participation and savings by small and micro businesses, particularly from building envelope and weatherization measures committed to in the Equity Targets
- → Advance the new partnership models explored in 2022 as better methods for serving commercial renters, small and micro businesses, and limited English proficiency customers, particularly in EJ communities
- → Increase effectiveness of portfolio-wide efforts to enroll rental property owners in Mass Save
- → Participate in Council meetings with an equity focus, including preparing meeting materials as appropriate, reviewing PA draft presentations, and briefing Councilors

COORDINATE WITH EM&V EFFORTS

- → Regularly coordinate with EM&V Advisory Group to exchange updates on relevant work efforts
- → Review draft study reports and provide input to ensure they will yield useful and actionable information to assess and enhance implementation efforts
- → Participate with HP Market Theory / Transformation subcommittee for activities relevant to the C&I sector
- → Identify outcomes and recommendations in final studies and reports that should prompt responsive actions by PAs and determine whether they are being implemented effectively.

EVALUATION, MEASUREMENT, AND VERIFICATION

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.

Highlighted EM&V team objectives in 2023 include:

- → Develop and implement EM&V research in support of the Council's priorities, including strategic electrification, customer equity, and moderate-income customers.
- → Ensure that the EM&V program optimally supports the development of the 2025-2027 three-year plan.
- → Carry out EM&V-related term sheet agreements.
- → Continue to reprioritize planned studies to adjust to the reduction in the EM&V program budget for the 2022-2024 triennium, ensuring that the overall deployment of available EM&V study funds is in alignment

with EEAC priorities.

→ Develop 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 functions or studies to be covered as necessary.

Work Areas

OVERSEE EM&V PLANNING

→ Plan and implement research needed to support the Council's priorities and EM&V-related term sheet agreements. Anticipated areas of focus include: studies on the savings and market effects associated with the promotion of heat pumps; a study of the representation of minority and women-owned businesses in the PAs' energy efficiency procurement efforts; and the development of new approaches for handling the effects of local energy initiatives such as the Boston Building Energy Reporting and Disclosure Ordinance (BERDO) on net program impacts.

→ Ensure that the EM&V research agenda optimally supports the development of the 2025-2027 three-year plan. This includes completing EM&V studies needed to support the PA potential studies, such as C&I and residential baseline studies that are already underway. It also encompasses providing input into the potential studies themselves. It may also include participating in discussions among the parties regarding EM&V policies to be followed in the next triennium, a well as contributing to term sheet agreements on EM&V issues.

→ Plan new EM&V studies as needed to support impact reporting, program planning and implementation, and policymaking. The high-level EM&V research agenda for the 2022-2024 current program cycle was established through the SEP, which was developed in 2021. However, the SEP is primarily a strategic document and includes detailed plans for only a limited subset of studies, so planning of additional new studies will be an ongoing activity in 2023 and beyond. 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.

→ Continue to reprioritize planned studies to adjust to the reduction in the EM&V program budget for the 2022-2024 triennium, ensuring that the overall deployment of available EM&V study funds is in alignment with EEAC priorities. As a result of a reduction in the overall EM&V program budget from the 2019-2021 to the 2022-2024 plan period after the SEP was produced, the EM&V program has been facing a budget shortfall requiring regular and ongoing reprioritization of planned studies. This reprioritization is performed through both EMC meetings and regular check-in calls for individual research areas.

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.

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. These tasks are described in more detail below.

Work Areas

PRODUCE MINUTES FROM ALL EEAC MEETINGS

- → Ensure meeting minutes are collected from all EEAC, Executive Committee, and Equity Working Group 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.

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 previously suggested 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 2023, 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

- → If requested by 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 2023. The sections below provide details on those known work products. We expect that schedules may change over time and will provide an updated list of known deliverables in each of the Consultant Team's quarterly work plans.

Month	Category	Topic	Description	Advisory Group(s)
April	Memo	Consultant Team Quarterly Report	Report on Consultant Team activities for Q1 of 2023.	All
	Document	Councilor Handbook	Update document shared with new Councilors to orient them to Council processes and priorities	P&A
May	TBD	TBD	TBD	TBD
June	Presentation	2023 Q1 Report	Observations on KPIs, PA differences, areas PAs not on track to meet goals or	P&A Residential

			council priorities	C&I
	Memo	Consultant Team Quarterly Work Plan	Plan for Consultant Team activities and deliverables in Q3 of 2023.	All
July	Memo	Consultant Team Quarterly Report	Report on Consultant Team activities for Q2 of 2023.	All
August	Presentation	2022 Year End Results	Presentation on PA evaluated results from 2022	All
September	Presentation	2023 Q2 Report	Observations on KPIs, PA differences, areas PAs are not on track to meet goals or council priorities	P&A Residential C&I
	Memo	Consultant Team Quarterly Work Plan	Plan for Consultant Team activities and deliverables in Q4 of 2023.	All
October	Memo	Consultant Team Quarterly Report	Report on Consultant Team activities for Q3 of 2023.	All
November	Presentation	Assessment of Potential	TBD	TBD
December	Presentation	2023 Q3 Report	Observations on KPIs, PA differences, areas PAs are not on track to meet goals or council priorities	P&A Residential C&I
On-Going	Tracking Spreadsheet	EM&V Status Update	A spreadsheet summarizing the status of current and planning EM&V studies	EM&V

PROPOSED BUDGET (APRIL-DECEMBER 2023)

The table below provides an overview of the Consultant Team's 2023 budget by team member and budget category. For team members providing subject matter expertise as noted in the table, work on the project will be driven by specific tasks requiring the individual(s)' knowledge area. The Consultant Team will notify DOER prior to engaging the subject matter expert.

	Staff	Work Areas	Strategic Planning	Plan Implementation	Oversight of EM&V	Coordinate Technical Services	Total Hours
NV5	Eric Belliveau	Strategic planning, program review, policy direction, representing C-Team at Term sheet meetings, Councilor briefings and meeting participation	350	150	38	15	553
	Gretchen Calcagni	Project and deliverable management, strategic planning, policy support, program review, data anlaysis, website management, Councilor briefings and meeting participation	350	300	38	50	738
	Adrian Caesar	Meeting minutes, website management, reporting, meeting attendance, data analysis	50	50		150	250
	Griff Keating	Data management and analysis, strategic planning, policy support, program review, ADM topics, GHG goal, heat pump analysis, Councilor Briefings and meeting participation	250	150			400
	Michelle Keller	C&I strategic planning, program review, data analysis, and deliverable development, Councilor briefings and meeting participation, CIMC participation, C&I working group paricipation	350	250			600
	Alek Antczak	Strategic planning, program implementation best practices, policy support	60	60			120
	Kim DiGiovanni	Marketing and web design				75	75
	Phil Mosenthal	Input and subject matter expertise on codes and standards, performance incentive, policy support	25	25			50
	Collin Smith	Res and IES best practices including experience in California	60	60			120
	Matt Socks	Lead C-Team involvement in AESC, Assessment of Potential, TRM Review	300	100			400
	Melissa Persechini	Meeting minutes, website management, reporting, meeting attendance	50	50		75	175
	Analyst	TBD	75	100		25	200
Individuals	Jeff Schlegel	Input and subject matter expertise on Active Demand, AESC, ISO issues, market transformation, performance incentive, and policy	125	75			200
	Ralph Prahl	Oversee EM&V study planning, implementation and reporting			506		506
	Bob Wirtshafter	Support EM&V study planning, implementation and reporting			173		173
	Other Consultants (TBD)	TBD	50	50			100
AEC	Lori Lewis	Support EM&V study planning, implementation and reporting			61		61
BuildingMetrics	Peter Jacobs	Support EM&V study planning, implementation and reporting			131		131
Caerbannog	George Lawrence	Input and subject matter expertise on commercial and expecially industrial programs		50			50
CEI	Margaret Lynch	Res and IES strategic planning, program review, data analysis, and deliverable development, Councilor briefings and meeting participation, RMC participation, EWG participation	225	300			525
DiversityMC	Susan Cohen	Input and subject matter expertise on marketing and outreach strategies for reaching underserved customers		40			40
	Kristy Ranieri	Input and subject matter expertise on marketing and outreach strategies for reaching underserved customers		45			45
GDR Consulting	Glenn Reed	Input and subject matter expertise on residential programs including heat pumps, lighting and appliances	125	125			250
Good Trouble	Elizabeth Chant	Input and subject matter expertise on IES programs and equity topics	120				120
JLC	Jennifer Chiodo	Support EM&V study planning, implementation and reporting; Input and subject matter expertise on commercial programs and commmissioning and HVAC measures	150	120	132		402
SparkPlug	Sean Becker	Input and subject matter expertise on active demand and storage especially in MA	75	60			135
	LABOR TOTALS	Hours	2,790	2,160	1,078	390	6,418
		Amount	$591,702	$445,549	$236,394	$67,250	$1,340,895
		Travel	$4,000	$3,000	$0	$0	$7,000
		DIRECT COSTS TOTAL	$4,000	$3,000	$0	$0	$7,000
		TOTALS	$595,702	$448,549	$236,394	$67,250	$1,347,895