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From: The Boston Green Ribbon Commission Commercial Real Estate and Health Care Working Groups

Re: Interim summary of GRC Engagement with the Massachusetts Energy Efficiency Advisory Council in 2020

Date: October 26, 2020

Background

The Boston Green Ribbon Commission's Commercial Real Estate Working Group (CREWG) and Health Care Working Group (HCWG) continued to engage with the Massachusetts Energy Efficiency Advisory Council (EEAC) in 2020 to track the progress of utility program administrators towards achieving the goals outlined in the Three-Year Energy Efficiency Plan 2019-2021 (Three-Year Plan).

Engagement with the EEAC was more limited in 2020 than in previous years. Primary activities were limited to attending relevant EEAC meetings and reviewing relevant meeting materials to monitor utility activities and progress towards achieving Three-Year Plan goals. Notably, engagement with the EEAC in 2020 was limited in part by the resignation—and lack of replacement—of commercial and industrial (C&I) councilor Rick Malmstrom, as well as by the COVID-19 pandemic, which greatly impacted meeting schedules, program administrator priorities, and program activities.

In spite of these challenges, the planning process for the 2022-2024 Three-Year Plan is commencing in Q4 2020 with a series of workshops and listening sessions, which will provide opportunities for CREWG and HCWG to become more directly involved in the stakeholder engagement and public feedback process to shape relevant C&I priorities for the coming years.

Note: This memo will be updated by October 30 with recommendations for engagement in the fall workshops and listening sessions as part of the 2022-2024 Three-Year Planning effort.

Summary of Requests and Accomplishments

During the planning process for the 2019-2021 Three-Year Plan, CREWG and HCWG had identified a set of priorities from ongoing conversations with members regarding deeper energy efficiency savings targets and emerging technologies and program offerings, which shaped the Working Groups' review and comments on the draft versions of the Three-Year Plans. The Working Groups identified additional priorities, articulated through public comments submitted to EEAC in July and October of 2019. The following table summarizes progress towards achieving these priorities from April to October 2020.

Focal Area

Recommendation and Results

Explore Further Savings Opportunities from Lighting

- In the initial draft, the C&I savings target was lower than the previous 2016-2018 plan. The GRC Working Groups provided targeted feedback calling for a higher savings targeted based on findings from the EEAC's Technical Consultant which indicated that the C&I sector in particular had significant savings potential remaining. Ultimately, electric and gas savings targets of 2.7% and 1.25% respectively were finalized in the Three-Year Plan. In particular, a significant proportion of electric savings are expected to come from additional lighting savings from C&I sector as well as HVAC improvements, given changing code baselines and market saturation of LEDs in the residential sector. Members expressed particular interest in the PAs pursuing savings opportunities from linear lighting (e.g. fixtures with controls).
- **Result:** In 2019, the PAs had fallen short of achieving 2019 lifetime savings targets for both electric and gas (97% of 2019 planned lifetime savings), with particular deficits in C&I electricity (92%) and gas (71%) savings achieved. As of end of August 2020, the PAs were well short of achieving 2020 targets, with only 23% of lifetime electricity savings (20% in C&I) and 35% of lifetime gas savings (19% in C&I) achieved. Trends from 2019 appeared to have continued, and relative to the goals of the Three-Year Planning period (56% complete), only 34% and 30% of C&I electric and gas targets respectively have been achieved. However, substantial disruption to program activities has occurred as a result of the unique challenges posed by COVID-19 (e.g. suspension of in-person activities for the majority of Q2 2020, partial shutdowns of C&I building and contractor operations, economic impacts on C&I budgets).
- Notably, participation rates have remained relatively strong particularly for electricity (92% of annual target C&I participants achieved for electric), though actual savings achieved have remained low; lighting projects continue to be dominated by projects without controls, and HVAC savings have been very limited to-date. In particular, Eversource has achieved only 9% and 3% of planned electric and gas savings from HVAC. C&I customer interest in HVAC may in particular be dominated by needs for improved indoor air quality for COVID risk management rather than achieving deeper energy savings. The PAs anticipate under a best-case scenario that 92% of electric and 65% of gas C&I targets could be achieved by end of 2020 due to pent up demand, assuming no further restrictions due to COVID, though the PAs would still not be on pace to meet overall 2019-2021 targets without substantially greater participation.

Focus and Expand Offerings Targeted at Tenant Spaces and Plug Loads

- During the Three-Year Planning process, the GRC Working Groups called for greater program offerings targeted at managing energy usage and plug loads in tenant spaces, given expected performance expectations under BERDO. As a result of engagement for the Three-Year Plan, the PAs included a section on commercial real estate and split incentive

	<p>challenges and intent to target BERDO buildings throughout the three-year cycle.</p> <ul style="list-style-type: none"> • Results: Outside of efforts to promote installation of lighting with advanced controls, increased trainings, and the development of the Equipment & Systems Performance Optimization offering, there appear to have been limited focus on further enhancing tenant-related initiatives. In particular, program activities were dominated throughout Q2 by COVID management and rolling out trainings to enable contractors to resume in-person work.
<p>Offer Expanded Training Through Mass Save and Simplify the Application Process</p>	<ul style="list-style-type: none"> • The GRC working groups provided feedback during the planning process to increase the availability of training programs to building operators, given the increasing reliance on control systems and new technologies to manage energy usage. As a result of engagement and bilateral meetings with Eversource, the utilities committed to increasing training programs on lighting controls and piloting a new Building Operator Control training to train facilities managers on building management systems. Additionally, Eversource and National Grid jointly offered to fund the cost of a BOC training for 30 A Better City member facilities in the spring of 2019. • Result: In 2020, Mass Save delivered a significant number of trainings to contractors. While many of these trainings were relevant to health and safety protocols and QA/QC processes to enable contractors to resume on-site work safely, other no-cost trainings were developed and implemented including a Networked Lighting Controls and Building Operator Certifications for C&I contractor staff and trainings to provide contractor services without customer contact through virtual assessments.
<p>Increase Continuous Commissioning through Stronger Support for C&I Data Collection</p>	<ul style="list-style-type: none"> • The GRC working groups encouraged the PAs to offer a more streamlined retrocommissioning (RCx) and operations and maintenance program using Mass Save’s historical program data and big data analytics to streamline incentive delivery across these programs. As a result, the utilities increased the priority of the streamlined RCx offer, changing the commitment timeline from 2021 in an early draft of the plan to Q2 2019. • Results: The utilities successfully launched the revamped RCx program in May 2019 under the new name of Equipment & Systems Performance Optimization (ESPO). ESPO introduced three tracks for participation (including Low Cost Tuning Measures, Targeted Systems Tuning, and Whole Building & Process Tuning) to enable support of more strenuous approaches. ESPO has continued to draw interest from C&I customers, though budget constraints have driven customers to consider non-capital-based offers and pursue low-cost tuning measures and RCx. The PAs have additionally used ESPO to combine COVID reopening support and energy efficiency improvements and are adjusting marketing approaches and offerings to continue engagement during the ongoing pandemic.

Study the Incorporation of Resilience into Efficiency Programs	<ul style="list-style-type: none"> • Comments submitted by the GRC Working Groups during the planning process encouraged further study of the connections between energy efficiency and resiliency. • Results: While the utilities chose not to focus on resiliency during the Three-Year Plan, programs including CHP and the newly-launched Passive House multifamily new construction program will provide resiliency benefits, though incentive delivery is oriented around energy savings.
Increase Savings from Utility-Sponsored Demand Management Programs	<ul style="list-style-type: none"> • The GRC Working Groups' comments during the planning process reinforced the utilities' commitment to launch a broader demand management program targeting summer and winter peak demand for the C&I sector. Comments encouraged a specific incentive for energy storage as a demand management measure. • The utilities ultimately added active demand management offerings to the C&I program, with incentives of \$35/kW for any technology able to deliver peak demand reductions during the summer and/or winter months as well as an energy storage performance incentive program with incentives based on services provided on a daily basis (\$100/kW) or an on-call basis (\$200/kW). The utilities are proposing to offer annual payments through these programs under five-year contracts based on average demand performance during the relevant periods. The utilities also committed to a formal active demand target of 250 MW (in addition to traditional electricity and gas savings targets) and to disclosing the performance of these programs on a bi-annual basis. • Results: The new Active Demand Reduction (ADR) offering was launched in advance of Summer 2019 as a demonstration program, with the goal of receiving approval for running the program as a full offering in advance of summer 2020. In summer 2019, the utilities had recruited nearly 500 accounts and 14,000 thermostats for participation in the program (with projected performance of 131 MW, exceeding filed performance target of 104.5 MW). Limited updates on the results of the 2020 program have been provided at EEAC meetings, though it is expected that program impacts may be challenging to measure due to the COVID-19 pandemic.
Continue to Expand Savings from Combined Heat and Power	<ul style="list-style-type: none"> • The GRC Working Groups encouraged the utilities to set a firm commitment for incentivizing new CHP systems, given the value of savings provided to the C&I sector in the past and potential emerging opportunities for small- and medium-scale applications. Ultimately, the utilities set a target of 51.77 MW of CHP under the Three-Year Plan. • Results: The PAs have not provided detailed data on CHP uptake in 2020, though it is expected that uptake has been limited, noting only one large project that yielded substantial savings.
Increase collaboration between C&I and utilities through establishing a statewide C&I working group	<ul style="list-style-type: none"> • In previous years, the GRC has met regularly with representatives from Eversource to better understand current market and program opportunities, provide feedback, and encourage greater participation. However, since 2018, frequency of correspondence has declined, and the GRC working groups have had more limited opportunities to directly

engage with Eversource. In comments submitted to the EEAC and PAs in July and October of 2019, the GRC working groups (with support from Councilor Rick Malmstrom) strongly encouraged the establishment of a statewide C&I working group with regular meetings between the GRC working groups and PAs.

- **Results:** Given challenges in meeting C&I targets, the PAs have expressed interest in establishing a C&I working group in order to improve familiarity with, access to, and engagement with utility programs. However, no updates on establishing a C&I working group have been provided, likely due in part to the lack of a C&I Councilor and the COVID-19 pandemic.

In addition to these areas where the GRC submitted relevant comments, we monitored additional items that would be relevant to the GRC's broader goals under Carbon Free Boston.

- **Beneficial Electrification:** The utilities enacted an "Energy Optimization" approach in the Three-Year Plan, which included setting aggressive targets for cold climate heat pump deployment, 17,980 of which are expected to be in C&I. During the 2019-2020 period, the utilities successfully launched energy optimization incentives for the residential sector with enhanced incentives from switching from non-gas fuels to heat pumps. An Energy Optimization offer mirroring the residential program was finally made available in August 2020, though participation is limited to small scale systems installed in conditioned spaces under 10,000 sq ft, and achieving this Three-Year Plan target is expected to be challenging. While PAs recognize the value of pursuing beneficial electrification in larger buildings to some degree (e.g. through VRF systems combined with dedicated outdoor air systems), larger C&I building owners must still pursue installation of these systems through custom retrofit programs, and electrification has not been the focus of workforce development activities aimed at C&I contractors. More consistent engagement from PAs, particularly in large C&I buildings, will be necessary to scale up adoption and drive market engagement.
- **Deeper Energy Retrofits:** While the PAs announced new multiple New Construction program pathways that promote deeper energy savings (e.g. Zero Net Energy/Deeper Energy Savings, Whole Building EUI Reduction), new programs supporting more comprehensive retrofits of existing C&I buildings have been slow to emerge, with new existing buildings offerings focusing on Continuous Energy Improvement/Strategic Energy Management and the ESPO program.
- **Metrics and Transparency:** The PAs committed to significantly more detailed bi-annual updates and quarterly KPIs on Mass Save's performance. Throughout the course of the year, the PAs reported out on these metrics, which have been valuable for tracking progress towards meeting key goals identified in the Three-Year Plan.

Next Steps

The Working Groups will continue to track the progress of these new initiatives through EEAC meetings and commence engagement with the Three-Year Planning process for 2022-2024. In particular, the working groups expect to engage key stakeholders and deliver public comment through listening sessions and participate in a series of workshops on topics relevant to C&I throughout Q4 2020 and early Q1 2021 to provide input into the development of the 2022-2024 Three-Year Plan.