RESIDENTIAL AND LOW INCOME WORKSHOP

June 4, 2015

www.ma-eeac.org
GROUND RULES

► Participate/Weigh-In (indicate w/table tent when want to speak)
► But Stay on Topic
► Be Succinct, Share Air Time
► Be Respectful/Civil
► Minimize Electronic Distractions
► If Can’t Support Next Steps/Recommendations, Explain Why Can’t and Try to Offer Alternative
► Note: Facilitator May Need to Establish and Enforce Per Person Time Limits and/or other ground rules as needed
WORKSHOP OBJECTIVES

► Focus discussion on Council recommendations that are not fully addressed in draft Plan

► Develop recommendations regarding program-related issues to include in Council’s July 30 comments to the PAs on the draft Plan
KEY DRIVERS PROCESS

► Informal discussions between Consultants and PAs to understand and close the gap between the draft Plan and the Consultants’ May 12th memo to the Council

► Residential topics
  - Lighting
  - Behavior programs
  - Sector and program cost per kWh and therm
  - Gas Heating and Water Heating Initiative
  - HES savings
MODERATE INCOME STRATEGY (#18)

► The draft Plan outlines a new moderate income strategy, though many aspects in Council recommendations resolution remain TBD, such as:

- Selection of 61-80% area median income range and continuity with low income program
- “Opt in” solution focusing on customers with weatherization opportunities identified through a home energy assessment
- Means of income qualification
- Partnership with community groups and coordination with municipal efforts
- Application of lessons from Efficient Neighborhoods+® and Renew Boston
COUNCIL RECOMMENDATION OPTIONS—MODERATE INCOME

► Minor
1. Provide assessment of serving customers at 81-100% and 101-120% of average median income

2. Specify date by which the moderate income offering will be available to qualifying customers (resolution said Q2 2016)

► Major
1. Include in final Plan more detailed implementation strategy, including dates and milestones

1. Include in Plan more comprehensive moderate income offering
The draft Plan states that PAs are exploring a possible strategy for serving renters, generally including:

- Implementation of a special renter visit
  - Install instant savings measures
  - Provide information about additional opportunities
- Landlord engagement
- Partnership with community groups and coordination with municipal efforts

Delivery mechanism(s) are TBD
COUNCIL RECOMMENDATION OPTIONS—RENTERS

► Minor
- Specify date by which the renter specific initiative will be available to qualifying customers (resolution said Q2 2016)

► Major
- Include more detailed implementation strategy that addresses split incentive issue—including dates and milestones—in final Plan
DEEPER SAVINGS AND OTHER HOME ENERGY SERVICES (#20)

Still under consideration, including
- Adjusting insulation incentives
- Providing customized approaches, technical assistance, and offerings to specific customer types/segments
  - Renters and moderate income customers addressed to some extent
  - Segments including homes doing remodeling work, high energy users and electric resistance heat customers not specifically addressed
- Integrating renewable thermal

Not in draft Plan, nor plan to implement
- Tracking measures at household level (addressed as a cross-cutting issue as well (#1))
- Reassessing structure of BPWG to ensure HPCs have an equitable role in decisions
  - BPWG currently provides a higher representation of HPCs as a proportion of participating contractors statewide (45% vs. 18%)
COUNCIL RECOMMENDATION OPTIONS—DEEPER SAVINGS AND OTHER HES

- **Minor**
  - Provide customized approaches, technical assistance, and offerings to specific customer types/segments

- **Major**
  - Include in final Plan plans for:
    1. Tracking all measures implemented at the household level where technically feasible
    1. Providing additional information regarding plans to incorporate renewable thermal
PAs plan to conduct an extensive review of the customer experience to identify opportunities for increased streamlining, simplifying and better targeting to maximize opportunities to influence customers to take action

- Does not include information on specific goals and objectives of effort as regards non-Mass Save incentives and offerings

Plan does not commit to a report that identifies actions needed to provide customers with an asset-based “home energy scorecard”
COUNCIL RECOMMENDATION OPTIONS—OPTIMIZING HEA

➤ Minor
- Include dates for completion of extensive review

➤ Major
1. Collaborate with DOER and EEAC consultants on a report that identifies actions needed to provide customers with an asset-based “home energy scorecard”

1. Provide details, dates and milestones regarding improvement of the integrated “one-stop shop” customer experience, including providing customers with both Mass Save and non-Mass Save information regardless of heating fuel source
HEAT LOANS AND FINANCING (#23-25)

► The PAs propose to minimize changes to the HEAT Loan (which has been very successful):
  - Plan to simplify and accelerate application and approval process (but not in draft Plan)
  - Additional measures are still under consideration

► The PAs are not formally evaluating the Council’s recommended changes to the HEAT Loan program
  - >0% interest rate: not planning to implement
  - Loan loss reserve: not planning to implement
HEAT LOANS AND FINANCING

Financing questions remain:
- Are customers at all income levels enjoying equal access to and a similar benefit from this product?
  - Data points from draft HEAT Loan evaluation
    - 45% of household taking the HEAT Loan in 2014 were in US Census Blocks with median household incomes between $40,000 to $80,000
    - Income information not collected in participant survey
    - Banks indicate income is not a major barrier for heat loan approval
- Is there a more cost efficient means for achieving equivalent results?

<table>
<thead>
<tr>
<th>HEAT Loan Interest Buydown</th>
<th>2013</th>
<th>2014</th>
<th>2015 (YTD)</th>
<th>2006-present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total amount financed (millions)</td>
<td>$88.4</td>
<td>$109.7</td>
<td>$40.2</td>
<td>$391</td>
</tr>
<tr>
<td>Total interest buydown (millions)</td>
<td>$13.9</td>
<td>$17.2</td>
<td>$5.9</td>
<td>$65.5</td>
</tr>
<tr>
<td>Avg. buydown per loan</td>
<td></td>
<td></td>
<td>Consistent average of approx. $1,500</td>
<td></td>
</tr>
</tbody>
</table>
COUNCIL RECOMMENDATION OPTIONS—HEAT LOANS

► Minor
  - Include a timeline for decision on adopting additional measures

► Major
  - In the final Plan include plans to conduct a formal evaluation of
    1) Offering low interest (e.g., 2%) loans for market rate customers, and maintaining 0% for moderate income customers

    1) Assessing how moderate income customers are currently served and could be better served by the HEAT Loan program, including through a loan loss reserve
MULTI-FAMILY RETROFIT (#28)

The draft Plan includes several positive enhancements
- Single point of contact
- Tracking of both res and C&I multi-family savings
- Exploring training for building operators and maintenance staff
- Enhanced integration of efficiency into refinancing events (still under consideration)

Several Council recommendations are not addressed in part or in whole
- Pay for performance: not in plan, no plan to implement
- Benchmarking: Plan mentions providing a link to an online benchmarking tool rather than more proactive encouragement through a dedicated initiative
- Segmenting multi-family: Plan appears to limit segmented approach to marketing and education vs. developing tailored approaches
COUNCIL RECOMMENDATION OPTIONS—MULTI-FAMILY RETROFIT

► Minor
- Provide additional information regarding new enhancements (improved single point of contact and tracking and reporting of both residential and C&I meter savings) in the Core Initiative Design section of the final Plan

► Major
Include in final Plan plans for:
1. Demonstrating a “pay for performance” approach to retrofits
2. Enhancing integration of efficiency into refinancing events
3. Providing enhanced support for benchmarking by including plans to develop and implement a plan or initiative for benchmarking
4. Providing targeted offerings to different segments of the multi-family building market
Positive potential additions to this initiative are mentioned as under exploration in the Plan — home automation, near real-time feedback, smart appliances and controls.

However, they are not accompanied by increased participation or savings per participant, or dates or milestones for deciding and implementing.

<table>
<thead>
<tr>
<th>From PAs’ Draft 2016-2018 Plan (statewide numbers)</th>
<th>Electric</th>
<th>Gas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2016</td>
<td>2017</td>
</tr>
<tr>
<td>Participants</td>
<td>950,350</td>
<td>950,400</td>
</tr>
<tr>
<td>Annual savings (MWh/millions of therms)</td>
<td>125,414</td>
<td>123,623</td>
</tr>
<tr>
<td>Savings per partic. (kWh/therms)</td>
<td>132</td>
<td>130.1</td>
</tr>
</tbody>
</table>
COUNCIL RECOMMENDATION OPTIONS—BEHAVIOR

► Minor
  - No minor option identified

► Major
  - Include an expansion of behavior savings in the final Plan, with dates and milestones
NEW CONSTRUCTION (#26)

The draft Plan does not include any of the following elements:
- Require renewable ready at higher tier(s)
- Create a Zero Net Energy (ZNE) incentive top performance tier

PA efforts to promote ZNE new construction in the draft Plan appear focused on education and marketing.
COUNCIL RECOMMENDATION OPTIONS—NEW CONSTRUCTION

► Minor
  - No minor option identified

► Major
  - Include Council recommendations as enhancements in final Plan:
    • Implement a “renewable ready” requirement in the highest two performance-based tiers and the top prescriptive incentive tier
    • Create a zero net energy incentive top performance tier
LIGHTING (#22)

- The narrative discussion on LEDs in the draft Plan is positive.
- However, the LED numbers in draft Plan are not indicative of an accelerated LED program.

**LED Share in Residential Lighting Initiative (statewide)**

<table>
<thead>
<tr>
<th>April 2015 YTD (invoiced)</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
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<tbody>
<tr>
<td>45%</td>
<td>33%</td>
<td>42%</td>
<td>51%</td>
</tr>
</tbody>
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- The consultants and PAs are planning to work together to address differences in key drivers and assumptions:
  - unit numbers
  - costs and incentives
  - share of LEDs vs. CFLs
  - differences in PA incentive levels and TRC costs
COUNCIL RECOMMENDATION OPTIONS—LIGHTING

► Minor
  - Support efforts by the consultants and PAs to resolve differences

► Major
  - Include a higher and growing share of LEDs in Plan and higher lighting savings goals
Council recommendation to assess upstream program designs for HVAC and DHW-related technologies no later than Q3 2016 is not in the draft Plan, and no plan to implement.

PAs are working on upstream commercial water heater delivery model “due to the expectation that PAs will be able to improve penetration of the high efficiency water heater market from roughly 10% in 2014 to nearly 50% by 2018”
COUNCIL RECOMMENDATION OPTIONS—HEATING AND HOT WATER

► Minor
  - No minor option identified

► Major
  - Include Council recommendation, with dates and milestones, in final Plan
LOW INCOME (#29)

- All Council recommendations are addressed in the Plan except:
  - Define low-income multi-family buildings as those with at least 50% of tenants earning up to 80% of Area Median Income—not in Plan, no plan to implement
  - Evaluate and, if appropriate, serve non-profit organizations that primarily serve low-income customers—still under consideration; matrix notes this will be addressed as a C&I issue
    - The Plan includes a National Grid prototype approach for houses of worship
COUNCIL RECOMMENDATION OPTIONS—LOW INCOME

► Minor
  - No minor option identified

► Major
  - No major option identified