

C&I Working Group Meeting

Tuesday, October 11th, 2022

10:00 AM - 12:00 PM

Zoom Meeting

Meeting Attendees

Nina Mascarenhas, Lisa Zagura, Bob Rio, Alan Sheard, Jason D'Antona, Dennis Villanueva, Heather Takle, Krista Lillis, Jennifer Chiodo, Kathy Loftus, David Chamberlain, Caroline Eber, Frank Gundal, Todd Holland, Brandy Chambers, Jaclyn Rambarran, Riley Hastings, Ryan Barry, Ari Michelson

AGENDA

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| 10:00 AM – 10:05 AM: | Welcome |
| 10:05 AM – 10:25 AM: | Presentation and Discussion on C&I participant study
By: Riley Hastings (Eversource), Ryan Barry (DNV) and Ari Michelson (DNV) |
| 10:25 AM – 10:45 AM: | Presentation and Discussion on the Commercial Non-Participant Study By: Jaclyn Rambarran (Eversource) |
| 10:45 AM – 11:25 AM: | Mass Save Incentive Framework <ul style="list-style-type: none">○ Total Resource Cost versus project cost for Mass Save projects (10.45 - 11.05 am) <i>By Brandy Chambers (Eversource)</i>○ Determining custom incentives (11.05 - 11.25 am) <i>By Lisa Zagura (Eversource) and Brandy Chambers (Eversource)</i> |
| 11:25 AM – 11:45 AM: | CIWG Survey Results |
| 11:45 AM – 12:00 PM: | Conversation/Discussion
Led By: Lisa Zagura (Eversource) and Nina Mascarenhas (DOER) <ul style="list-style-type: none">○ Based on this information, what feedback can be provided to the PAs?○ How can this information be used to motivate customers to participate in the newly offered measures in the 2022-2024 plan?○ December CIWG meeting topics |

Meeting Notes

Welcome:

- Agenda and speaker introduction
 - Agenda topics were prompted by survey development and kickoff meeting discussions
- Working group co-chairs will provide all meeting documentation and bi-annual survey results following meeting
- Co-chairs will solicit feedback for December meeting topics and format suggestions

Presentation and Discussion on C&I Participant Study:

- DNV serves the Massachusetts electric and gas Program Administrators as the stewards of their statewide residential, commercial, and industrial data including:
 - Tracking data – information on measures that are being installed, savings, locations, and customers.
 - Billing Data – updated annually
- PA data, including legacy data, uploaded to the “relational data warehouse”
 - Can be combined with third party data (such as U.S. census data and Massachusetts tax assessor data).
 - To access the public dashboard the link is:
<https://viewer.dnv.com/macustomerprofile>
 - Via the Mass Save website:
<https://www.masssavedata.com/public/customerprofiledashboard>
- Main topics addressed by dashboard:
 - How are our customers participating in the programs?
 - What measures have the highest amount of participation?
 - What measures provide the most savings to our program?
- Other dashboards available only to the PAs individually or collectively protect privacy rights for residential and commercial customers.
- Additional research can be requested as needed by the PAs and EEAC consultants.
- 2020 C&I Results Brief presented–
 - Annual briefs summarize program activity data and provide a bridge to the dashboard

Presentation and Discussion on the Commercial Non-Participant Studies:

- Business size determined by annual consumption:
 - Microbusiness: < 0.11 GWh or < 8,000 Therms
 - Small Business: 0.11-1.5 GWh or 8,000-40,000 Therms
 - Non-Small Business: ≥1.5 GWh or ≥ 40,000 Therms
- Upstream/Midstream: customer purchasing an item is receiving the rebate at the point of sale; item has already been incentivized. Downstream: The customer has to apply to receive a rebate or interact directly with a PA or vendor to receive an incentive
- A 2019 study with 2012-2017 electric and gas customer data, greatly focused on small and microbusinesses.
 - There was the least amount of participation from microbusinesses (less than 5%), a moderate amount of participation from small businesses (about 5-20%) and the most participation from non-small businesses (as much as 50%).
- A 2018 study evaluated efforts on mid-size accounts from 2011-2016
 - After adopting the recommendations from the 2013 study, midsize customers were no longer underperforming to the extent prior to 2013.
 - Persisting confusion with the programs, inconsistencies, and some programmatic definitions or language used
 - Midsized customers primarily participated in upstream (now midstream) programs.
- A 2020 study indicated microbusinesses were still participating at a much lower rate than non-small businesses prior to Covid-19.
- When discussing rate of participation, it should be noted that there are many more small and microbusinesses than large businesses.

Total Resource Cost versus Project Cost:

- MA EE programs are subject to benefit cost testing to ensure rate payer dollars are being spent effectively as determined by the Benefit Cost Ratio (BCR) which is a total resource cost test
 - Looks at the total cost of the efficiency investment against the benefits generated by the efficiency investment with the goal of determining if the benefits outweigh the costs.
 - Non- Energy Benefits include avoided costs of generation, future transmission and distribution
 - Other parameters considered in the BCR are the lifetime of the investment (measure life), energy savings and penalties, and project costs
 - The total resource cost is not the same as total project cost.
- Applies to all energy efficiency measures, prescriptive and custom. Two general efficiency program measure categories and baselines:
 - Retrofit: binary circumstance where there is a full replacement or new installation with the primary purpose being energy efficiency delivery.

- The cost of the resource and the cost of the project are the same in this case.
- Lost Opportunity: Purchase of replacement equipment at the end of its useful life and absent efficiency program incentives, they would have purchased equipment less efficient than with our incentives.
 - Total resource cost is the incremental cost (difference in cost between standard and high efficiency)
 - PAs can incentivize only the difference in the cost between the less efficient and the more efficient piece of equipment, not the full project cost.
 - In this case, there can be customer confusion because the entire project savings and costs are not being factored into the incentives
 - The difference in savings and the associated incentives have to do with the baselines
 - Example provided using a boiler at the end of useful life or lost opportunity as compared to retrofit
- Prescriptive Measures: measures with energy savings provided in the Technical Reference Manual (TRM).
 - Customers receive incentives based on the fixed savings assignments.
 - Prescriptive savings are based on averages for customer location, installation, etc.
- Custom Measure: measure savings not defined in the TRM.
 - Measure may be less common or more complicated requiring more investigation to determine the energy savings.
 - More common projects may have a Custom Express Tool
 - Generally understood how savings will be determined for a project, but requires site-specific parameters to determine energy savings
 - Other more complex or unique projects may require a Technical Assistance study to better understand the magnitude of savings.
 - Factors that go into determining energy savings
 - Custom savings calculations are vendor neutral. Unless the savings are determined by a Custom Express Tool, each project's savings are unique and based on the vendor's calculation parameters and assumptions. These calculations are reviewed by the PA technical teams

With electrification there can be an MMBTU penalty

Determining Custom Incentives:

- In projects where there are both electric and gas savings, the PAs for both accounts review the project. This is so that the customer can potentially receive an incentive from both PAs to help offset the cost of the project.

- To receive an incentive the project must be cost effective and pass the benefit cost ratio test (BCR).
- Factors Impacting the Incentive:
 - Incremental vs Total Project Cost
 - Comprehensiveness
 - More measures and engagement; lifetime vs immediate savings
 - Risk
 - Project savings dependencies such as occupancy, capacity realized, etc.
 - Technology – is the technology included in the 3-year plan as well as commercial viability
 - Budget – state, PA, across measures or end uses
- Approximate values for C&I customers to use to estimate annual savings:
 - \$0.20/ kWh
 - \$2.00/Therm
 - Not to exceed 75% of the project cost
- Customer economics such as ROI and cash flow are not primary factors in determining customer incentives. There are special circumstances that may drive incentives for a specific population to be greater than typically be supported by the program but these were across a territory as opposed to customer specific.

Additional Questions/Comments:

- Request for increased discussion time or varied format for increased feedback in forthcoming meetings. It was stated that the reason to create the group is members, having seen the results the PAs have gotten over the years, think communication is lacking between the PAs and the customers. The speaker stated this group was meant to be for direct communication on how to improve the programs over time and encouraged more focus of the group on getting results.
- Desire for Working Group participants to receive presented topics ahead of time so prepared and questions cultivated
- There was a question about the type of savings for electrification and how the savings would be claimed for converting from steam heat to heat pumps
 - Customer example regarding install of aerator, shower heads and envelope. In the context of electrification, is this kWh or Therm savings?
 - Savings are determined by the fuel that will ultimately drive the system. Akin to the order of operations for math problems, the energy savings is based on the fuel that is doing the displacement.
 - If electricity will be the ultimate system fuel, then associated measures will be claimed in terms of electricity
 - Therm or oil and gas MMBTU savings are accounted but penalized by the increase in kWh.
- It was stated that transparency about custom incentives are a big problem with Mass Save where customers have no idea of how much they can get paid for energy efficiency

measures and that the process of determining incentives should be reexamined for improvement.

- It was stated that it will be most useful for the group to identify which questions they want to ask of the data presented in this meeting and ask for the data analytics to be done to present answers and responses back to the group

CIWG Survey Results:

- 9,400 Survey's sent; 680 respondents
- 7.2% response (average percentage of respondents typical for customer surveys)
- There was variation to question 15 due to the third parties entering final questions in the software platform
- Though this survey was supplied to only commercial and industrial customers that not all the results were applicable to C&I.
 - Some of the responses appear to pertain to residential
- The raw survey data and discussions about the survey can be discussed outside of the current session as it is a lot of information and will require time for review

Survey Results Feedback:

- Concern was expressed about the number of questions that had responses 'not sure'. It was also suggested that if unsure, then respondents are probably not that close to the EE program within the company.
 - a. PA representative responded that responses of "don't know" or "unsure" may have been from respondents who applied for a rebate online, participated in Main Streets or do not recall which PA provided the incentive
- Concern was also expressed that the survey showed a high percentage of participants in the Mass Save programs. It was noted that the opportunity was not taken to try other avenues to distribute the survey to try to reach non-participants rather than have the survey sent out by just the Program Administrators.
- Could the PAs address electrification further, especially in the context of comprehensive projects and deep energy retrofit?
 - Electrification is complex, ranging from prescriptive displacements of simple existing equipment to heat pumps or scaling to a whole campus system replacement and displacement. A subject matter expert could be invited to a forthcoming meeting should members desire more information
 - It was suggested that instead of a presentation to this group, the issue of electrification and integrated heat load reduction needs to be clarified to help customers and TA providers understand the approach to comprehensive projects with interactive effects and get the energy savings associated with the correct fuel.

- The deep energy retrofit offer is being roll out at the beginning of November. A presentation can be made at the December meeting if desired.
- Where can more information about the Main Streets initiative be found?
 - Main Streets is associated with small business customers in targeted (often environmental justice and underserved) communities. These events involve outreach and support from the chambers of commerce and other local community, cultural, and business leaders to spread awareness in advance of the event.
 - PAs visit the primary streets in these locations with turnkey vendors and they engage these customers to participate in the Mass Save program.
 - https://www.masssave.com/-/media/Files/PDFs/Case-Studies/Chelsea_Case-Study.pdf
 - <https://www.eversource.com/content/ema-c/business/save-money-energy/energy-efficiency-programs/main-streets>