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# **C&I PLANNING WORKSHOP #2**

## **IMPLEMENTATION**

**Presented by DOER, The Massachusetts PAs, Raab Associates, and the EEAC Consultants**

February 17, 2015

[www.ma-eeac.org](http://www.ma-eeac.org)

# C&I 2/17 WORKSHOP AGENDA

- ▶ 1:00 Introduction, Workshop(s) Overview
- ▶ 1:10 Small Business
- ▶ 2:10 Behavioral Programs
- ▶ 3:00 Break
- ▶ 3:15 Commercial Real Estate
- ▶ 4:10 Hockey Stick Pattern
- ▶ 4:45 Next Steps (Third Workshop) /Wrap Up
- ▶ 5:00 Adjourn

# APPROACH TO EACH TOPIC

- ▶ Brief presentation/clarifying questions (10 minutes)
- ▶ Discussion (2-4 questions) (15 - 40 minutes)
- ▶ Next steps/recommendations (10 minutes)
- ▶ Important Notes
  1. Discussion among Councilors (will not likely have time to include non-Councilors)
  2. Next steps/recommendations are to the full EEAC, who will in turn endorse, modify, or reject—and forward to PAs
  3. As such, next steps/recommendations primarily from voting Councilors, but note in meeting summary if consensus, or, if not list alternatives (including non-voting Councilor alternatives)

# 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



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# SMALL BUSINESS

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# SMALL BUSINESS BACKGROUND

- ▶ Small Business initiative serves customers with less than 300 kW peak demand.
- ▶ Incentives are available up to 70% of project costs for eligible measures including lighting, refrigeration, domestic hot water and some HVAC controls. Small business customers are also eligible to participate in other C&I New Construction and Retrofit offerings.
- ▶ Customers may finance their portion of the project costs at 0% interest for a period up to 24 months.
- ▶ There are over 200,000 small business eligible customers in MA with the vast majority using less than 10,000 kWh annually.
- ▶ Small business eligible electric customers represent 96% of C&I accounts and 42% of C&I usage statewide.
- ▶ In 2013, over 4,600 electric customers participated in the Small Business initiative, producing over 100 million kWh of savings with the average participant reducing their usage by 17.3%

# SMALL BUSINESS EE ADVANCEMENT OPPORTUNITIES

- ▶ Approaches already used successfully to serve large C&I or residential customers may provide models for expanding participation amongst small business customers.
- ▶ Models such as Main Streets or HES may provide options for enhancing service to, and the customer experience of, those small business customers whose usage and end use mix is much like a residential customer.
- ▶ Expanding the menu of available offerings to include additional measures, including custom opportunities, spanning water heating, insulation, HVAC, etc. may increase participation and savings.
- ▶ Consider augmenting implementation resources by engaging specialized gas contractors (similar to refrigeration contractors) to improve penetration of gas measures.

# SMALL BUSINESS KEY QUESTIONS

## DISCUSSION

- ▶ What implementation strategies, end-use technologies, or services may be offered to complement the effectiveness of this program enabling greater reach?
- ▶ What are the potential benefits and program impacts of defining the various strata of small business eligible customers? Would segmenting small business customers this way lead to increased participation, greater gas/electric integration and coordination, etc.?
- ▶ What are the new approaches the PAs are considering and do they meet these goals discussed in this workshop?



# SMALL BUSINESS NEXT STEPS

## COUNCIL RECOMMENDATIONS

- ▶ Priority – Deeper Savings, Priority – Increase participation
- ▶ Expand prescriptive menu of services to better advance natural gas energy efficiency opportunities and non-lighting electric measures.
  1. Increase participation in the program and deeper savings
  2. Use building analytics and benchmarking to target small business customers
- ▶ Investigate potential for various program implementation approaches to serving the various strata of small business eligible customers.
  1. Increase outreach and awareness programs for greater participation. Work with trade groups and associations.
  2. More comprehensive (e.g. integrate gas/electric) marketing programs for small business.
- ▶ Determine which implementation strategies, technologies and building diagnostic capabilities are transferable and effective for serving Small Business customers.
  1. Explore HES-type approach and segmentation by size and type.



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# BEHAVIORAL AND ENGAGEMENT PROGRAMS

February 17, 2015

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# BEHAVIORAL AND ENGAGEMENT PROGRAMS BACKGROUND

- ▶ Behavioral programs attempt to influence behavior and attitudes to encourage reductions in energy use.
- ▶ Residential programs tend to have large treatment and control groups.
- ▶ Commercial programs typically focus on individual customers.
  1. Use meter or sub-meter data to determine savings
  2. Savings resulting from Building Operator Certification uses deemed savings (kWh/SF)
- ▶ Strategic Energy Management / Continuous Energy Improvement is typically applied to industrial process
  1. Use regression analysis to determine savings
  2. Can include the funding of an Energy Manager

# BEHAVIORAL AND ENGAGEMENT PROGRAMS

## EE ADVANCEMENT OPPORTUNITIES

- ▶ Institutions, municipalities, universities and schools have traditionally been better candidates for behavioral programs.
  1. Savings of 4-10% in one yr, up to 37% over 6 years
  2. SEE the Light initiative
- ▶ SEM / CEI programs in the Pacific Northwest are accounting for 15-25% of all C&I savings (ETO, BPA)
  1. Customers of >1 million kWh usage can be cost effective
  2. SEM / CEI engagement can result in a doubling in the number of capital projects

# BEHAVIORAL AND ENGAGEMENT PROGRAMS

## KEY QUESTIONS

### DISCUSSION

- ▶ Should a distinction be drawn between programs that only seek to change customer behavior and programs that combine behavior and longer term energy efficiency engagement (SEM/CEI)?
- ▶ Are C&I behavioral and/or SEM/CEI programs cost-effective and a good fit for Massachusetts? If not, under what circumstances can they become cost-effective?
- ▶ What are the implementation barriers for behavioral and SEM/CEI programs? Are there certain types of customers that would be better suited to these programs?

# BEHAVIORAL AND ENGAGEMENT PROGRAMS NEXT STEPS

## COUNCIL RECOMMENDATIONS?

- ▶ Investigate successful behavioral programs to determine the critical elements for success and their cost-effectiveness.
- ▶ Research SEM/ CEI programs to determine their applicability, cost effectiveness, and the effort required to implement in Massachusetts.
- ▶ Evaluate the potential savings from behavioral and/or SEM/CEI programs
- ▶ Incentivize building operators and owners, and provide building operator training around behavior issues (develop in consultation with BOMA and others); and support peer-to-peer cohorts
- ▶ Develop guidelines for how energy savings can be tracked from behavioral programs, and how Pas can get credit for behavioral savings
- ▶ Explore leveraging for dispatchable load control
- ▶ Provide technical assistance to identify opportunities and implement
- ▶ At minimum, do a pilot during the next 3 years for large C/I customers

## COUNCIL RECOMMENDATIONS



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# COMMERCIAL REAL ESTATE

February 17, 2015

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# COMMERCIAL REAL ESTATE BACKGROUND

- ▶ CRE is a prime target for energy savings – PA study
- ▶ Disclosure ordinances and GWSA opportunities
- ▶ CRE Working Group – research, interviews, roadmap
  1. turnkey delivery model for small and mid-size
  2. pre-packaged options for CRE customers,
  3. “energy efficiency leases” with key CRE owners and asset managers, and
  4. “dashboards” to increase energy transparency.
- ▶ National Grid and Eversource Energy Sustainable Office Design program



# COMMERCIAL REAL ESTATE EE ADVANCEMENT OPPORTUNITIES

1. Offer pre-packaged suites of energy efficiency options to increase energy efficiency upgrades in buildings (lighting, HVAC and other measures).
2. Increase engagement with tenants. Energy tracking and dashboards are useful to both owners and tenants. CRE actors want to know how they compare to other buildings.
3. Perform outreach to building managers and owners. Work with the owners to incorporate EE into retrofits or tenant fit-out.
4. Target marketing to CRE businesses based on building vintage. The CRE study found that the majority of energy consumption occurs in building built before 1990.

# COMMERCIAL REAL ESTATE EE ADVANCEMENT OPPORTUNITIES

5. Energy efficiency leases are a longer term market-transformation opportunity.
6. Leverage the role of account managers. The study showed that of the CRE businesses considering energy efficiency investments, a large proportion had PA account managers.
7. Speak to real-estate professionals in their own language.

# COMMERCIAL REAL ESTATE KEY QUESTIONS

## DISCUSSION

- ▶ What are the most effective existing PA outreach strategies and programs to reach owners, managers and tenants in the CRE sector?
- ▶ What would be the most effective supplemental strategies and programs to reach owners, managers, and tenants in the CRE sector?
- ▶ Is there a role for dashboards, building labeling, or software screening tools to identify buildings with high usage so they can be targeted for increased attention?

# COMMERCIAL REAL ESTATE NEXT STEPS

## COUNCILOR RECOMMENDATIONS

- ▶ Implement recommendations from CRE Working Group Roadmap, Massachusetts Commercial Real Estate Survey Analysis and Office Market profile report and other supplemental strategies
  1. Add 7 opportunities plus anything additional from Roadmap when completed
- ▶ Expand Sustainable Office Design program features, including streamlined review and incentives, to technologies beyond lighting
- ▶ Explore market transformation opportunities
  1. Advanced building operator training
  2. Sub-metering and wireless
  3. Better financing opportunities
- ▶ Mid-size office building targeted program—whole building approach
- ▶ Use BERDO data for identifying CRE opportunities in Boston and leveraging participation in EE programs
- ▶ Explore main drivers for CRE EE investment opportunities



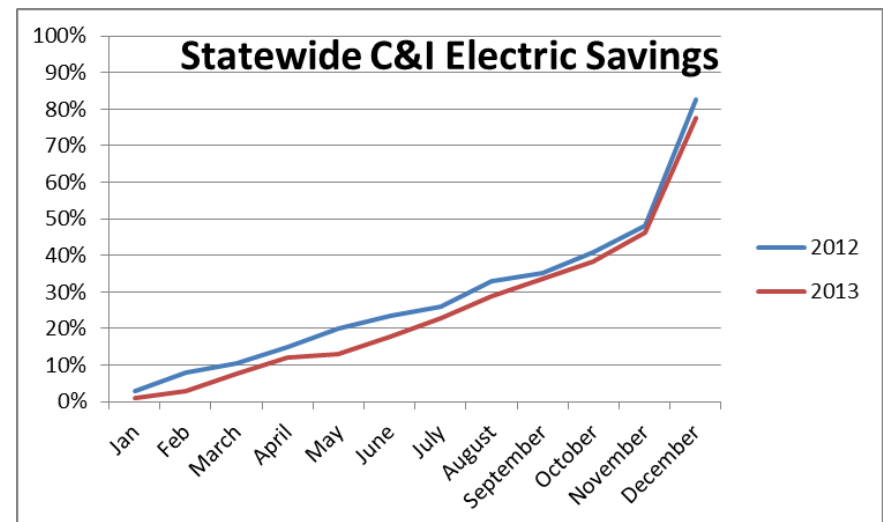
# HOCKEY STICK PATTERN

February 17, 2015

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# HOCKEY STICK PATTERN BACKGROUND

- ▶ The Hockey Stick refers to the shape of the savings graph when plotted by month, when a significant portion of savings occur in the last month of the year.
- ▶ The Hockey Stick pattern represents a large increase in resources required to close and process projects at the end of the year
- ▶ The magnitude of the savings claimed late in the year causes uncertainty for the Council



# HOCKEY STICK PATTERN EE ADVANCEMENT OPPORTUNITIES

- ▶ Negotiate incentives to close projects at times prior to the 4<sup>th</sup> quarter.
- ▶ Develop limited time offers for customers to create a sense of urgency.
- ▶ Use quarterly vendor and PA staff incentives and goals to try to smooth out savings claims.
- ▶ Promote seasonal measures at the optimal time for customers to take advantage of them
  - Example: Replace a boiler in the summer

# HOCKEY STICK PATTERN

## KEY QUESTIONS

### DISCUSSION

- ▶ Is the Hockey Stick pattern a problem? Would a more even flow of projects result in improvements in total savings in any given year or over the course of a three-year plan?
- ▶ What approaches have been tried, how effective have they been, and are there other potential options that should be tried?



# HOCKEY STICK PATTERN

## NEXT STEPS

### **COUNCIL RECOMMENDATIONS**

- ▶ Acknowledge existence and challenges of hockey stick, but don't spend inordinate resources to address
- ▶ Improve pipeline forecasting and reporting to improve visibility and predictability
- ▶ Avoid offering incentives that create inequities or unintended consequences (e.g., waiting to the end of year or not moving forward)



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# **WORKSHOP #3**

**MARCH 3, 2015**

**9 AM – 1 PM**

**LOCATION TBD**

# PROPOSED WORKSHOP #3 SCHEDULE

## PROPOSED TOPICS

- ▶ Demand Reduction and Gas Constraints
  - Geotargeting as a potential solution
- ▶ Oil/Propane Customers
- ▶ Whole Building and Deeper Savings Programs
  - Commercial Zero Net Energy Buildings (ZNEB)
  - Lower cost whole building audits
- ▶ Add Segmentation (Size/Sector)
- ▶ C&I Reporting
  - Program Reporting vs. Initiative

# TOPICS THAT WERE NOT PRIORITIZED

## **WHOLE BUILDING AND DEEPER SAVINGS PROGRAMS**

- ▶ Commercial Zero Net Energy Buildings (ZNEB)
- ▶ Low Cost Whole Building Audits
- ▶ Energy Management and Project Management Support Services
- ▶ Enhanced comprehensiveness – Metrics for multiple-measures installed

## **CURRENT PROGRAMS**

- ▶ Segmentation
  1. Mid-size customers
  2. Healthcare
  3. Hospitality
- ▶ C&I financing
- ▶ Performance contracting
- ▶ Municipal streetlight programs
- ▶ Expanded upstream programs