
2016-2018 RECOMMENDATIONS FROM EEAC WORKSHOPS

C&I and Residential

► **March 10, 2015**

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PROCESS TO DEVELOP RECOMMENDATIONS



- ▶ **December EEAC meeting – Councilors prioritized Topics**
- ▶ **C&I Workshops**
 - 2/6 – Workshop #1
 - 2/27 – Workshop #2
 - 3/3 - Workshop #3
- ▶ **Residential**
 - 2/12 – Workshop #1
 - 2/26 – Workshop #2
 - 3/9 – Workshop #3
- ▶ **Multi-Family & Low Income**
 - 2/26 - Workshop

RESOLUTION TIMELINE



- ▶ **Recommendations will lead to an EEAC resolution to the PAs in developing the draft 2016-2018 plan**
 - Based on Workshop Recommendations
 - Executive Committee receives draft resolution on 3/13
 - Executive Committee meeting on 3/18 for discussion
 - Resolution posted on website 3/25 for review
 - EEAC will vote on resolution at 3/31 EEAC meeting

- ▶ **This is the opportunity to review recommendations and point out missing recommendations**

REVIEW AND DISCUSSION

- ▶ **Sample and C&I Recommendation review – 12mins**
- ▶ **Discussion on C&I – 10 mins**
- ▶ **Residential, Multi-family, Low Income – 12mins**
- ▶ **Discussion on Resi, MF, LI – 10mins**
- ▶ **Other topics – 20mins**

WORKSHOP RECOMMENDATIONS: SMALL BUSINESS

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

RESOLUTION RECOMMENDATION: SMALL BUSINESS

- ▶ **The PAs shall continue to improve their delivery of efficiency services to small businesses through the following strategies.**
- ▶ **Provide deeper savings to each participating customer.**
 - Expand the menu of prescriptive services to better advance natural gas energy efficiency opportunities and non-lighting electric measures;
 - Use more comprehensive (e.g. integrated gas/electric) marketing programs for small businesses.
- ▶ **Increase participation in the program.**
 - Use building analytics and benchmarking to target small business customers;
 - Increase outreach and awareness programs;
 - Continue to work with trade groups and associations;
- ▶ **Continue to customize services based upon customer size and type.**
 - Investigate the potential for varied program implementation approaches to better serve the various strata of Small Business customers;
 - Determine which implementation strategies, technologies and building diagnostic capabilities employed in other programs are transferable and effective for serving Small Business customers.
 - Explore a Home Energy Services-type approach for the smallest business customers.

SUMMARY OF RECOMMENDATIONS



► **Workshop #1**

- Combined Heat and Power
- Retro-Commissioning(RCx)
- Building & Lighting Controls
- Sub-Metering

► **Workshop #2**

- Small Business
- Behavioral and Engagement Programs
- Commercial Real Estate
- Hockey Stick Pattern

DEMAND REDUCTION



- 1. Continue to educate Councilors on this whole area, and consider EEAC work group on demand reduction and demand response**
- 2. Evaluate including additional benefits for reducing demand during winter peak periods in addition to summer peak periods.**
- 3. Investigate what impact there would be on efficiency savings if the council were to place greater emphasis on demand savings or peak demand savings.**
- 4. Explore the added potential benefits of, and impacts upon, the efficiency programs of the planned advanced metering functionality and time varying rates changes by the electric utilities – this will need to be reevaluated during three-year plan.**
- 5. Design, implement, and evaluate a demand reduction and/or demand response pilot in each PA's service territory**

SEGMENT SPECIFIC APPROACHES



- 1. Classify, track, report on and customize approaches to major C/I sub-sectors (e.g., municipal, health care, commercial real estate, and education; non-profits; mid-size and small C/I**
- 2. Create more targeted communications to different market segments, explaining the benefits from, and availability of, energy savings opportunities to drive participation.**
- 3. Provide increased access to segment-specific marketing (including using trade associations) information and educational opportunities on the Mass Save site.**
- 4. Share marketing and sales materials among PAs**
- 5. Ensure EM&V study, where applicable, and market research results are used to inform program design (e.g., hospital study).**
- 6. Twice yearly feedback to the Council regarding how sector specific strategies are being implemented across the state, what kind of sector specific materials are being used by the PAs, and how market research and/or EM&V lessons learned are implemented.**

DELIVERED FUELS, OIL, PROPANE AND BIOFUELS

- 1. Seek ways to provide integrated thermal services, with or without incentives, to all C&I customers, regardless of delivered fuel status.**
- 2. PAs share option that non-gas customers can do a thermal audit using a PA auditor at customer cost.**
- 3. Evaluate and consider promoting legislative and/or regulatory changes if need be to support energy efficiency in C/I buildings that use unregulated fuels (similar to 1-4 residential buildings).**
- 4. Prioritize switching to renewable sources and high efficiency cold climate heat pumps over switching to natural gas**
- 5. Get one page briefing on funding sources/uses for all Residential/Low Income and C/I efficiency. Understand, how measures for unregulated fuels are able to be funded in residential sector, including multi-family, but not in commercial sector.**

C&I REPORTING



1. **The PAs should seek to split the New Construction C&I program into separate initiatives for new construction, end of life replacement and upstream.**
2. **For the C&I retrofit program, the PAs should seek to increase the number of initiatives to correspond to the Council's interest in more detailed reporting data, such as:**
 1. CHP
 2. Retrofit Programs
 3. Control systems (including retrocommissioning, control upgrades, sub-metering and performance metrics)
 4. Engagement programs (continuous energy improvement, strategic energy management, behavioral programs)
3. **Goals should be set at the Program level, so PAs have the flexibility to expand programs if they are more effective at providing savings. However, there should still be initiative level targets provided by the PAs.**
4. **Provide break-down annually (or quarterly) by end use/segment**
5. **Provide information on cost of customer acquisition across programs and segments; identify where being most successful and what areas most challenging**

ZERO NET ENERGY BUILDINGS

1. **DOER recommended that PAs create an ZNEB program or separate track in new construction. Support of voting Councilors was split.**
2. **Concerns included:**
 1. Be mindful that ZNEB customers may not pay into EE funds
 2. Consider including storage in definition
 3. What's difference between ZNEB and current New Construction program
3. **DOER recommends possible additions:**
 1. EUI targets for buildings and Integrated Design
 2. Energy metering for ZNEB building
 3. Additional energy modeling support
 4. Deep energy retrofit program for existing buildings

ADDITIONAL TOPICS



► Recommendations by councilors

- Streamlined Whole Building Energy Audits - incorporate whole building streamlined energy audit methodologies into their 2016 – 2018 programs
- LED Street Lighting – recommends PAs create a plan to install LEDs in all utility-owned street lights by 2020.

RECOMMENDATIONS – RESIDENTIAL PRODUCTS



Lighting

- ▶ **Rapid transition from CFLs to LEDs.
Whole house, then Retail program**
- ▶ **Ongoing joint PA/EEACC Consultant assessment due to speed of lighting product innovation.**

New Technologies

- ▶ **Identify and support additional and appropriate demonstration projects on new technologies**
- ▶ **Evaluate upstream program designs for HVAC related products**

RECOMMENDATIONS – PRODUCTS PROGRAMS (CONT.)

Promotion of Renewable thermal of heating and cooling equipment

- ▶ Support renewable thermal in coordination w/existing renewable incentives.
- ▶ Develop a methodology for claiming savings from renewable equipment
- ▶ Continue to support greater integration of HVAC into HES

RECOMMENDATIONS - HES INITIATIVE



Deeper Savings

- ▶ Focus on increasing the closure rate on weatherization
- ▶ Target customers – e.g. high use or electric heat
- ▶ Integrate a scorecard (Not PA agreement on this)
- ▶ Integrate with other building retrofit triggers
- ▶ Reassess the insulation incentive (75% up to \$2,000), consider 2 tiers (market rate vs. moderate income)
- ▶ Track measures at the household level where possible (ie. HES, HEHE, not retail lighting)

HES INITIATIVE



Moderate Income & Renters

- ▶ **Renter specific initiative is needed. This could be a more step-wise program**
- ▶ **A new statewide initiative for moderate income households (60-120% AMI), but not rely on straight income qualification to qualify customers**
- ▶ **partner with community groups & coordinate with municipal efforts**

HES INITIATIVE



HEAT loan/financing

- ▶ Evaluate current 0% Heat Loan program (2%?) and loan process
- ▶ Consider loan loss reserve for lower credit scores
- ▶ Considered for inclusion: DER, pellet boilers, pre-weatherization, landlord 2-3 unit loans

HES INITIATIVE



Behavior Initiative

- ▶ **Expand - including linking to home automation (e.g. learning thermostat)**
- ▶ **Time varying rates could create an opportunity, but unlikely to happen in 2016-18 plan**

NEW CONSTRUCTION



- ▶ **Increase support for zero net energy construction**
 - Evaluate offering a ZNE incentive tier for the 2016-2018 New Construction Initiative
 - Require that new construction receiving PA incentives in at least the highest tier(s) be “renewable ready”
- ▶ **Continue to introduce new technologies**
- ▶ **PAs should evaluate adding performance path for multi-family housing (4+ stories)**
- ▶ **Evaluate whether new construction for rental housing should have higher incentives than condominiums**

MULTI-FAMILY RETROFIT



Comprehensive Integrated Approach

- ▶ **Seek better ways to segment the sector**
- ▶ **Whole building based performance remains the gold standard**
- ▶ **Implement a new initiative in partnership with housing finance institutions to target retrofit opportunities**
- ▶ **Provide a fully-integrated (Residential/C&I) Multi-Family program**

MULTI-FAMILY RETROFIT



Benchmarking

- ▶ **Broader benchmarking of some or all sub-sectors of multi-family housing would be beneficial**
- ▶ **Concerns around cost and privacy can be addressed**
- ▶ **Consider voluntary program/demonstration project that allows a ‘pay for performance’ approach**

MULTI-FAMILY RETROFIT



Serve Buildings with Unregulated Fuels

- ▶ **Allow PAs to account for the benefits that they get from saving unregulated fuels similar to in HES**
- ▶ **Revise the metrics. E.g. metric for oil, btus, carbon or some combination**
- ▶ **Consider pending renewable thermal credits and avoided cost of GWSA compliance to calculate the benefits of energy efficiency programs**

LOW INCOME PROGRAMS



- ▶ **LEAN should continue to pilot test new energy saving technologies and practices**
- ▶ **LEAN should expand eligibility to:**
 - 1) low-income multi-family houses that heat with oil/propane (assuming RCS change);**
 - 2) non-profits that primarily serve low-income customers; and**
 - 3) multi-family buildings that meet 80% of HUD standard**
- ▶ **Consider initiative targeted at retrofit opportunities when multi-family buildings are refinanced**

ADDITIONAL RECOMMENDATIONS

- ▶ **Input from public comments**
- ▶ **Input from municipal RFI**
- ▶ **Topics not discussed at the workshops: C&I:**
 - Segments:
 - Mid-size customers
 - Healthcare
 - Hospitality
 - Energy Management and Project Management Support Services
 - Enhanced comprehensiveness – Metrics for multiple-measures installed
 - C&I financing
 - Performance contracting
 - Expanded upstream programs
- ▶ **Discussion at May workshop**

THANK YOU



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