Next Generation Energy Efficiency

NESEA BuildingEnergy Boston 2017
Wednesday, March 8th
10:30am-12pm
Today’s Discussion

Moderator:
• Claire Miziolek
  – Northeast Energy Efficiency Partnerships (NEEP)

Presenters:
• Arah Schuur
  – Massachusetts Department of Energy Resources (MA DOER)
• Danny Mushner
  – Rhode Island Office of Energy Resources (RI OER)
• Dave Farnsworth
  – Regulatory Assistance Program (RAP)
• Paul Markowitz
  – Vermont Energy Investment Corporation (VEIC)
Who are you?

Today you are YOU,
that is TRUER than true.
There is NO ONE alive
who is YOUPER than YOU!
Northeast Energy Efficiency Partnerships

“Assisting the Northeast & Mid-Atlantic Region in Reducing Total Carbon Emissions 80% by 2050”

Mission
Accelerate energy efficiency as an essential part of demand-side solutions that enable a sustainable regional energy system

Vision
That the region embraces next generation energy efficiency as a core strategy to meet energy needs in a carbon-constrained world

Approach
Overcome barriers and transform markets through Collaboration, Education, and Enterprise

One of six REEOs funded in-part by U.S. DOE to support state and local efficiency policies and programs.
What is Next Generation EE?

• In a world...
  – With increasingly constrained resources
  • And new data streams, analytical, and technilogical possibilities....
## What is Next Generation EE?

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<th>TREND</th>
<th>NEXT GENERATION POLICY</th>
<th>STATES</th>
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<td><strong>Grid Modernization</strong></td>
<td>Examining new utility frameworks responsive to <strong>emerging technologies/societal</strong> challenges and anticipating proliferation of <strong>multi-directional power flows</strong>, while also emphasizing <strong>greater customer engagement</strong>.</td>
<td>MA, NY, CT, RI, DC, NH</td>
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<td><strong>Strategic Electrification and Geo-targeting</strong></td>
<td>Planning to procure savings from energy systems as a whole — <strong>across all fuels</strong> — with an emphasis on <strong>targeting distributed energy resources</strong> and their capabilities to <strong>defer</strong> or limit the need for further investments in <strong>distribution and transmission</strong> system <strong>assets</strong>.</td>
<td>VT, RI, NY, MA, ME</td>
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<td><strong>Advanced Building Policies</strong></td>
<td>Shifting toward a whole-building approach to efficiency emphasizing advanced building energy codes, code compliance mechanisms, and <strong>building energy rating and labeling</strong> practices that drive <strong>toward “zero energy”</strong>.</td>
<td>RI, MA, CT, VT, DC, NY, DE</td>
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<td><strong>New Program Strategies</strong></td>
<td>Harnessing new technology and policy innovations, enhance customer understanding around energy usage through expanded <strong>energy data access, information communication technologies</strong>, and <strong>strategic energy management strategies</strong>.</td>
<td>MA, VT, CT, NY</td>
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<td><strong>Integrating EE and Demand Response</strong></td>
<td>Pairing <strong>energy efficiency program planning</strong> with opportunities for <strong>demand response</strong> in a manner that <strong>enhances cost-effectiveness</strong> and reduces <strong>peak load</strong> growth.</td>
<td>MD, CT, RI, MA, PA</td>
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<td><strong>Evolution of Financing Tools</strong></td>
<td>Leveraging <strong>private capital investments</strong> to increase funding available for energy efficiency programs through the use of Green Banks and related credit facilities, while also <strong>preserving proven program structures</strong>.</td>
<td>NY, CT, PA, NJ</td>
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<td><strong>EM&amp;V 2.0</strong></td>
<td>Coupling <strong>new data collection technologies</strong> and <strong>software-as-a-service analytic tools</strong> with traditional <strong>EM&amp;V</strong> for <strong>real-time feedback</strong> of efficiency program impacts that is <strong>less costly</strong> and sufficiently accurate.</td>
<td>CT Pilot</td>
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NEEP’s 2 cents...

- **Advanced Building Policies:**
  - Next Generation communities, working from codes, lead by example, benchmarking, rating, and tools that work for modern uses *(HELIX)*
  - 1:30pm Session TODAY!
    - Energy Codes and Zero Energy Buildings: Strategies for Today, Tomorrow, and Beyond
    - [http://neep.org/initiatives/energy-efficient-buildings](http://neep.org/initiatives/energy-efficient-buildings)

- **Strategic Electrification:**
  - New NEEP project for 2017, expect research report in Summer
  - Hosting Strategic Electrification Summit on 6/29
Evolving Financing Tools
- New NEEP project focused on financing commercial building efficiency options
- Bundle together comprehensive offerings and match with innovative financing to make the market case for large-scale commercial upgrades
  - Looking at maximizing non-energy benefits, parsing out split incentive constraints, and creative financial mechanisms

EM&V 2.0
- 2017 starting pilot with CT DEEP and utilities to test out how new, advance analytical tools compare to traditional M&V
- 3 year pilot funded by DOE, commercial and residential components
- Spring Meeting on 4/27 in DC
(Resources)

- Advanced Metering Infrastructure: Utility Trends and Cost-Benefit Analyses in the NEEP Region
- Insights on which utility program administrators are combining energy efficiency and demand response: NEEP’s recent blog on the matter.
- NEEP Auto M&V Industry Brief: How Fast is the EM&V Paradigm Changing?
- The Smart Energy Home: Strategies to Transform the Northeast
- Air Source Heat Pump Regional Market Transformation Strategy Report
- More information on how to get involved with NEEP
 Lets Dive in!

- Arah Schuur, Director Energy Efficiency Division
  - Massachusetts Department of Energy Resources (MA DOER)
- Danny Musher, Chief of Program Development
  - Rhode Island Offices of Energy Resources (RI OER)
- Dave Farnsworth, Senior Associate
  - Regulatory Assistance Program (RAP)
- Paul Markowitz, Community Energy Program Manager
  - Vermont Energy Investment Corporation (VEIC)
Questions and Discussion
Thank you!

Claire Miziolek

cmiziolek@neep.org

781-860-9177 x115

Northeast Energy Efficiency Partnerships (NEEP)

91 Hartwell Avenue Lexington, MA 02421

www.neep.org