Best Practices in Energy Efficiency and an Introduction to NEEP

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TOPICS FOR TODAY

• Part 1: Introduction to NEEP
• Part 2: Foundations of energy efficiency (EE) policy
• Part 3: A look at the region, and where DE stands
• Part 4: NEEP resources & contact info
MISSION
Accelerate the efficient use of energy in the Northeast and Mid-Atlantic Regions.

APPROACH
Overcome barriers to efficiency through Collaboration, Education & Advocacy

VISION
Transform the way we think about and use energy in the world around us.

FUNDING
Balanced mix of federal, foundation and ratepayer funds.

*NEEP is one of six Regional Energy Efficiency Organizations (REEOs) designated by the U.S. DOE to support state efficiency policies.*
NEEP’S Work in Building Energy

Support of Complementary Policies

- **Building energy codes**
- **Building energy rating/disclosure**
- **High Performance Buildings**
  - Schools
  - Public Buildings
  - Zero Net Energy
  - Communities
  - Multi-family housing
- Regional Working Groups allow state participation in each of these projects
Steering Committee: PUC commissioners from 9 states, SEOs directors, air regulators

Project Committees: PUC & energy office staff, program administrators

Core Functions:
- Protocol development
- Research & evaluation
- Education and information access

DNREC currently supports several EM&V Forum projects
Efficient Products & Market Initiatives

Regional energy efficiency program strategies

- Retail Products Reports & Working Group
  - 2013-2014 Residential Lighting Strategy Update
  - Business & Consumer Electronics Strategy Report

- Emerging technologies
  - Air-Source Heat Pump Strategy Report

- Commercial Lighting
  - DesignLights Consortium, an internationally-recognized lighting fixture certification program

- Appliance efficiency standards
  - Coordinated efforts to pass state standards in ‘08
Public Policy Outreach & Analysis

- Attend & monitor stakeholder meetings - EEAC
- Track legislative & regulatory proceedings on EE
- Follow & comment on energy plans & strategies
- Advocate for EE as a first-order resource, strong & stable funding, comprehensive & coordinated program delivery
- Share best practices & communicate with state agencies, utilities/program administrators, advocates, EE practitioners & providers
- Provide state data and analysis on EE savings goals & progress
- News and insights on region & states
- Regional & federal engagement: energy markets, RGGI, Clean Air Act 111(d), etc.
PART TWO:
Foundations of Energy Efficiency Policy
EE: AN UNBEATABLE VALUE PROPOSITION

BENEFITS OF EFFICIENCY:
- Clean, affordable energy
- Economic driver/job creation
- Power system reliability
- Helps meet climate goals
- Protect Delaware’s natural resources

Energy Efficiency is THE most cost-effective way of meeting demand

Energy Savings Potential Study cites $2.3B in economic benefits

Potential Study projects up to 4,800 jobs supported for each year of EE investments

Strong investments in EE are reducing the need for T&D investments

Energy Savings Potential Study projects up to 4,800 jobs supported for each year of EE investments
ENERGY EFFICIENCY:
THE CHEAPEST ENERGY RESOURCE

source: Lazard, 2012
MAKING EFFICIENCY WORK

Three key ingredients to effective implementation:

1. **POLICY** - building the framework
2. **REGULATORY** - getting the details right
3. **PROGRAM STRATEGY** - delivering results

*Congrats to Delaware for expanded EE legislation & adopting model building energy code!*
FOUR KEY ELEMENTS IN LEADING STATES

1. A DEFINED POLICY DIRECTIVE
   - Nine states in the region have legislative directives to:
     - Capture “all cost-effective energy efficiency” (MA, CT, ME, RI, VT, and now DE!) or,
     - Meet defined energy efficiency savings targets, i.e. EE Portfolio Standard (MD, PA, NY, DE)

2. SUFFICIENT AND STABLE FUNDING
   - Most states in region ramping up funding, though some are still capped (NH, ME, PA, NJ, DC)
     - Instability hurts consumer and vendor confidence
     - Could pay too much for expensive generation
KEY POLICY ELEMENTS

3. STAKEHOLDER BOARD & STATE COORDINATION

DE joins MA, CT, RI, ME in creating the new EEAC
- Broad representation with expert consultants
- Transparency & venue for public input
- Work out issues before getting to regulators
- Share resources - planning, communication, EM&V
- Statewide consistency of programs & marketing
- Integrated, comprehensive approach to planning and policies

BEST PRACTICE IDEAS:
Distinct yet complementary roles for the SEU, DNREC & utilities to avoid confusion, duplication of offerings; offer clear path for customers & market actors

- **SEU focus**: Central hub/gateway, education, coordination, market transformation, program gaps, financing
- **Utility focus**: whole building, tech assistance, product rebates, customer-facing programs
- **DNREC focus**: Oversight, special programs, Leading by Example, complementary policies - building codes, appliance standards, etc.
“Help lock in” savings and foster progress on energy efficient technologies and practices. Building energy rating helps the market value efficiency. Other policies include:

**Building energy codes** – target new buildings; training and compliance are key.

**Appliance standards** – remove least-efficient products from the market; preserve choices.

**High performance building programs** – improve overall energy and environmental performance for new and existing buildings.
PART THREE: A Look at the Region and Delaware’s Progress
THE REGION AS AN EFFICIENCY LEADER

- Aggressive Savings Goals
- Strong Policy Support for Efficiency Programs
- Leader in High Efficiency Products & Buildings
- Innovative Programs & Policies
Progress in Delaware

- **EE Potential Study** - a great roadmap!
- Passage of HA #2 to SB 150 resulted in changes to Title 26
- DE Building Code Collaborative is increasing code compliance
- Much work ahead to implement legislation, create EE framework; stakeholder involvement is key
- Expect DE to move ahead in next NEEP *Regional Roundup report,* also ACEEE Scorecard.
## EE AS A RESOURCE POLICY EXAMPLES

<table>
<thead>
<tr>
<th>State</th>
<th>Policy Type</th>
<th>Program Administrator</th>
<th>Energy Savings Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connecticut</td>
<td>All Cost-Effective Energy Efficiency</td>
<td>Utilities</td>
<td>In process</td>
</tr>
<tr>
<td>Maine</td>
<td>All Cost-Effective Energy Efficiency (legislative cap lifted 2013)</td>
<td>Efficiency Maine</td>
<td>~1.5% of electric sales by 2016</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>All Cost-Effective Energy Efficiency</td>
<td>Utilities + Cape Light Compact</td>
<td>2.6% of electric &amp; 1.14% of natural gas sales annually by 2015</td>
</tr>
<tr>
<td>Vermont</td>
<td>All Cost-Effective Energy Efficiency</td>
<td>Efficiency Vermont + Utilities</td>
<td>2% of electric sales annually</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>All Cost-Effective Energy Efficiency</td>
<td>Utilities</td>
<td>Estimated 2.4% of electric &amp; 1.0% of natural gas sales by 2014</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>Program Funding Only</td>
<td>Utilities</td>
<td>No mandated savings goals</td>
</tr>
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<tr>
<td>Delaware</td>
<td><strong>Energy Efficiency</strong>&lt;br&gt;Resource Standard&lt;br&gt;Not Yet Implemented</td>
<td>Sustainable Energy Utility, now utilities will join, expand programs</td>
<td>15% of electric &amp; natural gas sales by 2015</td>
</tr>
<tr>
<td>District of Columbia</td>
<td><strong>Efficiency Funding Only</strong></td>
<td>Sustainable Energy Utility</td>
<td>No mandated savings goals</td>
</tr>
<tr>
<td>Maryland</td>
<td><strong>Energy Efficiency</strong>&lt;br&gt;Resource Standard</td>
<td>Electric Utilities</td>
<td>15% of per capita electric use by 2015</td>
</tr>
<tr>
<td>New Jersey</td>
<td><strong>Efficiency Funding Only</strong></td>
<td>Office of Clean Energy + Utilities</td>
<td>No mandated savings goals</td>
</tr>
<tr>
<td>New York</td>
<td><strong>Energy Efficiency</strong>&lt;br&gt;Portfolio Standard</td>
<td>NYSERDA + Utilities</td>
<td>15% of electric &amp; natural gas sales by 2015</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td><strong>Energy Efficiency</strong>&lt;br&gt;Resource Standard&lt;br&gt;Funding Capped</td>
<td>Utilities</td>
<td>0.75% of annual electric sales through 2015</td>
</tr>
</tbody>
</table>
As DNREC, utilities and SEU move ahead, expect a good jump in EE investments.

Expenditures include all electric and natural gas ratepayer funding and funding from RGGI and wholesale markets like the Forward Capacity Market. It does not include federal funding from the American Recovery and Reinvestment Act (ARRA) and the Weatherization Assistance Program (WAP) or any customer contributions. Data is taken from state annual efficiency reports available through the NEEP website. 2010 -2013 are year-end reported data while 2013 and 2014 represents budget data that are subject to change.
ELECTRIC SAVINGS, 2010-2012
STATES THAT INVEST MORE, SAVE MORE. HOW WILL DELAWARE RAMP UP?

State Annual Electric Savings as Percent of Sales

Electricity savings are taken from state annual efficiency reports from 2010 to 2012, available through the NEEP website. States without reported savings data for particular years are left blank. Electricity sales data are taken from the EIA’s State Electricity Profiles website.
PART FOUR:
RESOURCES AND CONTACT INFO
REPORTS & GUIDANCE
MORE AT WWW.NEEP.ORG

GREENING THE PUBLIC SECTOR, MAXIMIZING ENERGY EFFICIENCY
Regional Policies Mandating High Performance State-Funded Public Buildings and How to Maximize Their Energy Efficiency

Northeast Energy Efficiency Partnerships
October 2012

Building Energy Rating and Disclosure Policies Update and Lessons From the Field
Northeast Energy Efficiency Partnerships
February 2013

Roadmap to Zero Net Energy Public Buildings
Recommended Steps for the Northeast & Mid-Atlantic

Presented by Northeast Energy Efficiency Partnerships
RESOURCES FROM NEEP

We have an abundance of news, policy and program resources on our website, www.neep.org. These include:

• **Highlights**, a bi-monthly policy news and analysis e-newsletter
• **Energy Efficiency Matters**, our blog, including our Policy Tracker
• **The Efficiency Policy Snapshot** - the states “by the numbers”
• **The Regional Roundup**, Annual comparison of states’ progress on EE policies **The Regional Evaluation, Measurement and Verification Forum**, which supports the development and use of common protocols to evaluate, measure, verify, and report the impacts of energy efficiency.
• Regional Energy Efficiency Database - “REED”
• General support on all aspects of energy efficiency policy or programs
• Link to federal programs, contacts in other states
NEEP CONTACTS

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