



## **NEEA Performance Report**

Progress Toward Milestones

Fourth Quarter 2010



### STATUS KEY

 WILL MEET OBJECTIVE



 MAY MEET OBJECTIVE



 UNLIKELY TO MEET OBJECTIVE





### ACCELERATING MARKET ADOPTION




## MARKET SECTORS


### RESIDENTIAL

Objective	Q4 2010 Market Progress	Status
<b>Ductless Heat Pumps (DHPs)</b> Create infrastructure to establish DHPs as a viable HVAC system in region	<ul style="list-style-type: none"> <li>Expanded heating season public service announcement and radio campaign through December and into Q1.</li> <li>Launched Master Installer effort throughout region; 44 companies from four states. Program launched on consumer website to help consumers identify local Master Installers.</li> <li>Implemented cold climate study in NorthWestern's territory to field test Mitsubishi hyper-heat systems in six homes located in Butte and Helena.</li> <li>Met 2010 goal to increase contractor participation by 30%.</li> <li>Mitsubishi and Fujitsu integrate 1:1 application and displacement approach into their sales and marketing tools. This application allows homeowners with electric heat the opportunity to heat and cool the majority of their home with a DHP while maintaining the previous system as backup.</li> </ul>	
<b>Northwest ENERGY STAR® Homes</b> 15% market share. Gain minimum energy efficiency specifications for Built Green programs (Washington) and National Assoc. of Homebuilders Green program (Montana)	<ul style="list-style-type: none"> <li>Northwest ENERGY STAR Homes market share is 15.1% through December, according to U.S. HUD data. (Prior census data methodology: 12.4% through December.) Numbers are up 12.7% from 2009.</li> <li>Four Built Green Washington programs will work with NEEA to develop minimum energy efficiency specifications.</li> </ul> <p><i>Note: On recommendation from its third-party evaluator, NEEA has moved to U.S. HUD data to calculate market size. Census data as previously used was shown to overstate the market size.</i></p>	  <i>Significant change from prior quarter</i>




Objective	Q4 2010 Market Progress	Status
<p><b>Consumer Electronics</b> Secure retailer commitments to participate in 2010 Consumer Electronics initiative, or 80% of Northwest television market. Actively participate and spearhead national initiatives to increase voluntary specifications and standards</p>	<ul style="list-style-type: none"> <li>• Energy Forward campaign featuring “Most Efficient” messaging launched in October: regional press release, social media support on Facebook, in-store promotional materials rolling out to 378 regional locations.</li> <li>• A 15-second video promoting Energy Forward ran eight times daily on all TVs displayed at Costco locations. The video ran through Feb 6, 2011 (Super Bowl).</li> <li>• TopTenUSA, promoting the best energy-efficient consumer products, launched in November.</li> <li>• With California and Midwest utilities, NEEA presented TV initiative to retailers and manufacturers at ENERGY STAR Partners Meeting in Denver, Colorado.</li> <li>• With California and Nevada utilities, NEEA submitted letters in support of advancing the date ENERGY STAR 5.1 for TVs goes into effect as well as Set Top Box Version 3.0/4.0, and ENERGY STAR Top Tier to align with NEEA 2011/12 TV initiative.</li> <li>• YTD 2010 incentives paid to retailers: 445,000 TVs meeting or exceeding ENERGY STAR 4.1 spec, 29,000 computer monitors meeting or exceeding ENERGY STAR. 5.0 +10%, and 7,000 desktop computers meeting or exceeding ENERGY STAR 5.0.</li> <li>• 2011 contract addendums delivered to participating retailers: Costco, Wal-Mart/Sam’s, Sears/Kmart, Best Buy, and Vanns; and Brandsource and Nationwide Marketing Group.</li> </ul> <p><i>Note: The baseline methodology used to calculate TV savings is under review and may result in a change to planning forecasts.</i></p>	
<b>COMMERCIAL</b>		
Objective	Q4 2010 Market Progress	Status
<p><b>Redesign</b> Redesign the Commercial sector to achieve measurable short-, mid- and long-term results consistent with 2010-14 Business Plan commitments</p>	<ul style="list-style-type: none"> <li>• Existing Building Renewal initiative conducting research and developing owner roadmap and integrated measure packages for deep energy renovations. Commercial Lighting Solutions engaged in detailed program design (market research, regional coordination and tool assessment). Business IT is completing market research. Logic models for Office/Commercial Real Estate and Healthcare being updated.</li> <li>• BetterBricks online resources continued growth; website and blogs showed record traffic increase of 52% over Q4 2009.</li> <li>• Initiated strategic partnerships with Rocky Mountain Institute &amp; PNNL for Existing Building Renewal elements: energy efficiency finance, M &amp; V, modeling, technical packages development and assessment.</li> </ul>	

Objective	Q4 2010 Market Progress	Status
<b>Health Care</b> Decision makers of 65% of Northwest hospitals, as measured by number of “beds,” practicing Strategic Energy Management (SEM) with initial energy reduction goals of 10-30% (2014 Objective)	<ul style="list-style-type: none"> <li>Adventist Medical Center participated in a cost share agreement with NEEA to launch Strategic Energy Management Fast Track. Scoping was completed.</li> <li>Coordination with Energy Trust of Oregon to facilitate NEEA transition of Healthcare SEM efforts.</li> <li>Regional participation in Energy Efficiency Commitment (E2C), a program of the American Society for Healthcare Engineering, is over 29 million square feet - 30% of healthcare facilities.</li> <li>Some data acquisition and analysis tools are proving to be less effective than expected, leading to reduced validated savings versus forecasts.</li> </ul>	  <i>Significant change from prior quarter</i>
<b>Office Real Estate (now Commercial Real Estate)</b> Decision makers of 50% of office real estate market practicing SEM, with initial energy reduction goals of 10-30%(2014 Objective)	<ul style="list-style-type: none"> <li>Recruited four additional commercial real estate firms to the Market Partner Program. Evaluation commencing in Q2 for measured market transformation progress may be below target. Evaluation does not include validated savings or estimates for market partner advancement.</li> <li>Launched "Carbon4Square" sustainability competition in partnership with BOMA Portland, with 76 participating buildings versus 50 projected. Combined with the Kilowatt Crackdown contest, over 200 Northwest buildings are engaged in energy efficiency competitions.</li> </ul>	
<b>New Building Design/Existing Building Renewal</b> 50% of architectural and design engineering services in target markets achieve energy savings per 2030 Challenge targets, or 50%+ over current practice (2014 Objective)	<ul style="list-style-type: none"> <li>Integrated Design Labs (IDL) 2010 data and evaluation expected to yield savings showing market transformation progress. May exceed target.</li> <li>Over 20 projects encompassing over 2 million square feet in 2010 met or exceeded Architecture 2030 targets of 50% or better reduction from ASHRAE 90.1-2003 baseline. Expect these projects will show validated energy savings in 2011 and 2012.</li> <li>Key support provided by IDL to two new Net Zero office projects: Oregon Sustainability Center and Bullitt Foundation offices, and one large Existing Building Renewal: Edith Green.</li> <li>New guide to Energy Performance Modeling in Design Phase published and placed on BetterBricks website. Web-based introduction to integrated design launched.</li> <li>Last quarter of New Construction as stand-alone initiative. Preparations underway to transition to reduced activity under Existing Building Renewal.</li> </ul>	
<b>Building Operations</b> 50% of building operators and service providers in target markets achieve building operating performance that saves 30%+ energy over current practices (2014 Objective)	<ul style="list-style-type: none"> <li>Expecting substantial market diffusion savings from school tune-up and lighting projects in Idaho from building performance services provided by Firm Focus firms. Data through Idaho Office of Energy Resources needed for evaluation unavailable until late summer. Using engineering estimate in short term to evaluate market transformation progress. Eight new advanced tune-up projects sold and delivered by Firm Focus service providers.</li> <li>Diagnostic studies at three large hospitals completed. Scoping studies delivered to last of qualified participants of the Kilowatt Crackdown in Seattle.</li> </ul>	  <i>Significant change from prior quarter</i>
<b>Additional Information:</b> NEEA is acting to ensure that all of its commercial initiatives are fully compliant with the NEEA Initiative Lifecycle process, including data management plans with evaluation planning and coordination, so that market transformation progress will be more measurable. Commercial Lighting Solutions manager will be Elaine Miller. Hiring of the Business IT manager is awaiting completion of primary market research through Emerging Technology in Q1. Janice Peterson, NEEA's Operations & Maintenance specialist, has left NEEA to PECl; replacement to be sought soon.		

INDUSTRIAL		
Objective	Q4 2010 Market Progress	Status
<b>Industry Groups</b> New industry group for Continuous Energy Improvement (CEI) that obtains executive engagement and commitment to assign resources	On December 7, a second industry group, the Oregon Association of Nurseries, held a “roadmap” workshop to begin “Roadmap to Reducing Energy Use in the Nursery Industry by 25% in 10 Years.”	
<b>Strategic Energy Management</b> Expand Strategic Energy Management	<ul style="list-style-type: none"> <li>• The four-state Manufacturing Extension Partnerships in Oregon, Washington, Idaho and Montana are actively integrating energy efficiency into their productivity offerings, and identifying capital project opportunities that will be referred to appropriate local utilities. Eighteen-month project is on track for completion in 2011.</li> <li>• Demonstration project at Snohomish County PUD is underway to understand the opportunity for utility account representatives to support industrial customers with strategic energy management practices. Project is on track for 2011 completion.</li> <li>• Deployment of NEEA’s initial Strategic Energy Management solution, CEI, continues to be on track and to demonstrate persistence, generating verifiable saving at plants representing 15% of the target food processing market.</li> <li>• The second version of CEI is scheduled to begin launch in 2011. Three configurations: online version for small- medium-sized manufacturing businesses; consultant-only version for firms seeking ISO 50001 registration; online/consultant delivered hybrid system for medium- and large-sized manufacturers. All three versions rescheduled for launch in 2011.</li> </ul> <p><i>Note: All Strategic Energy Management efforts are on track except the second version of Continuous Energy Improvement (CEI v2). Q4 usability testing revealed that additional development effort is required. CEI v2 is rescheduled for release in 2011.</i></p>	
<b>Energy Management Demonstration Project</b> Engage five regional firms in Northwest Energy Management demonstration project	Four industrial firms continued to participate in the Northwest Energy Management Demonstration Project to demonstrate Strategic Energy Management principles and practices for compliance with ISO 50001 energy management system standard. Project is scheduled for completion in 2011.	

INDUSTRIAL		
Objective	Q4 2010 Market Progress	Status
<b>Technical Solutions</b> Implement one new technical solution	<ul style="list-style-type: none"> <li>With NEEA's Emerging Technology Group, the Northwest Food Processors Association is developing a Refrigeration Initiative in support of its effort to reduce energy intensity by 25% in 10 years. The initiative will support introduction of new refrigeration technologies to the food processing industry.</li> <li>With Emerging Technology Group, continue to investigate the energy savings potential of a Green Pumps initiative, patterned after the successful Green Motors Practices initiative. Investigation scheduled for completion in 2010. Rescheduled for 2011.</li> </ul>	

**Additional Information:** In November, Sharon Peterson presented "Collaborative Goal Setting Climate and Energy Intensity Reduction: The Northwest Food Processors Challenge" at the Behavior, Energy, and Climate Change Conference in Sacramento. In December, John Sandin, Industrial Operations Manager, attended the NWFPA Rural Workshop in Twin Falls, Idaho, co-presenting with JR Simplot on the value of Energy Champions.

CODES AND STANDARDS		
Objective	Q4 2010 Market Progress	Status
Standards		
Continue building credential as expert in efficiency policy, codes and standards	NEEA's standards expert on team negotiating pending large motors standards with industry representatives. New approach developed for regulating walk-in coolers and freezers is being considered by U.S. DOE as basis for rulemaking.	
Participate on at least three standards setting committees	NEEA participated in ten standards processes during Q4: <ol style="list-style-type: none"> <li>1. Walk-in coolers &amp; freezers test procedures and standards</li> <li>2. Commercial refrigeration equipment test procedures</li> <li>3. Microwave ovens standby and off mode test procedures</li> <li>4. Clothes washer test procedures</li> <li>5. Electric motors test procedures and standards</li> <li>6. Commercial icemakers rulemaking framework</li> <li>7. Fluorescent lamp ballast test procedures</li> <li>8. Battery chargers &amp; external power supplies test procedures</li> <li>9. Compliance &amp; enforcement</li> <li>10. Full fuel cycle analysis and metrics</li> </ol>	
Determine proper NEEA role in U.S. DOE rulemaking process	Dedicated standards expert allowed NEEA to participate fully and effectively in the U.S. DOE rulemaking processes for the first time.	



Objective	Q4 2010 Market Progress	Status
<b>Codes</b>		
By participating in the code development process, ensure that codes continue to increase in stringency and to incorporate all cost-effective measures	<ul style="list-style-type: none"> <li>• NEEA worked with Washington utilities to ensure implementation of 2009 state energy code. January 1, 2011 implementation will include most buildings constructed in 2011.</li> <li>• NEEA worked with stakeholders in Oregon to develop proposals for new residential code to go into effect in April, 2011.</li> </ul>	✓
Raise compliance rates for both residential and non-residential codes	Over 4,000 people attended NEEA-funded trainings in 2010. NEEA is conducting studies on compliance rates for commercial lighting throughout the region and on homes in Montana. Information gathered from these studies will help guide future education and training efforts. <i>Note: Compliance rates can only be measured through field research, which is conducted only once every several years.</i>	?
Build and maintain support for energy codes	NEEA supports the collective energy code knowledge of the Northwest through its contracts in all four states. <i>Note: This objective should be redefined so a measurable target can be established.</i>	?

**Additional Information:** As part of a group of energy efficiency stakeholders, NEEA began negotiations with industry representatives to significantly expand standards coverage for electric motors as part of the second round of efficiency standards for large electric motors (to 500 horse power).

REGIONAL EQUITY	
Objective	Q4 2010 Report
Demonstrate a continued commitment to regional equity across all of NEEA's work	

**Residential:** A growing number of independent retailers in rural areas are now participating in the regional consumer electronics initiative. Seven Idaho retail locations will take part in a Q1 2011 NEEA pilot to test enhanced services and consumer electronic resources for sales associates and retailers.

**Industrial:** NEEA industrial staff co-presented with J.R. Simplot leaders at the Northwest Food Processors Association Rural Workshop in Twin Falls, Idaho on the value of championing energy performance. NEEA continues to measure the long-term, persistent savings of eight food processing facilities in rural areas that implemented the Continuous Energy Improvement framework. Since 2006 these facilities have saved 2.0 aMW, an estimated .4 aMW in 2010.

**Codes and Standards:** In 2010, NEEA trained 4,000 people in energy codes across the four-state region. Hundreds of people received training in rural communities. As an outcome of conversations with NEEA staff, Idaho Power announced it will link the utility's commercial incentive programs to the 2012 International Energy Conservation Code to be adopted in the state. This effectively creates a "reach" code that provides a clear signal to the market, allowing market actors to receive payment to test approaches before the new code is adopted. It also avoids regulatory issues for utilities trying to claim savings for codes once they are adopted. This model could be followed nationally. Kudos to Idaho Power.



REGIONAL EQUITY

Objective

Q4 2010 Report

**Emerging Technologies:** Initial results from monitoring of "cold climate" DHPs in Montana show good performance in sub-zero temperatures, confirming NEEA lab test results and manufacturer performance claims. A NEEA-funded survey of European water heater manufacturers has identified approximately six manufacturers producing units that comply with the Northern Climate HPWH specification. Although expensive, they clearly demonstrate that no technology hurdles exist to the requirements of the Northern Climate specification.

**Partner Services:** Conduit, an online resource that facilitates information-sharing, coordination and collaboration among regional energy efficiency professionals, is being piloted with 140 users from 53 organizations across all Northwest states. The website will launch to the public in Q2, with additional features and functionality planned through 2011.

PORTFOLIO

Objective

Q4 2010 Report

The Regional Portfolio Advisory Committee met December 3.


- No changes to the portfolio were proposed or recommended.
- NEEA's five-year forecast suggests that the current portfolio will deliver NEEA's total regional savings goal but may fall short on the net market effects goal. . The Regional Portfolio Advisory Committee is considering the impacts of high regional / low net savings initiatives relative to the overall goals of the region. Concurrently, Market Planning is improving the process of planning estimates to allow decisions regarding portfolio and net market estimates later this year.
- Next action is 2011 improvement of the portfolio model and supporting information sources to improve decision-making:
  - Build detailed ACE (Alliance Cost-Effectiveness) forecasting models; develop official NEEA savings forecasts; analyze cost effectiveness; identify gaps from 6th Power Plan; attribute savings to funding cycles; and Funding Cycle 4 (2010-2014) net market effects and regional equity
  - Codes and Standards are currently expressed as 100% net market effects.

*For continued discussion:*

- Savings from previously funded initiatives.
- The role of net market effects as a key target metric for Regional Portfolio Advisory Committee; Regional coordination and the role of Advisory Committees; and percent of budget applied to Strategic Energy Management.

FILLING THE ENERGY EFFICIENCY PIPELINE

EMERGING TECHNOLOGY

Objective	Q4 2010 Market Progress	Status
<p><b>Project Portfolio</b> Create project portfolio with 20-year potential savings of 300+ aMW; one or more project applies across all four states</p>	<ul style="list-style-type: none"> <li>• Project Portfolio of 17 targeted markets: 6 residential, 6 commercial, 4 industrial and 1 agricultural.</li> <li>• Technical 20-year savings potential projected to be over 1,700 aMW.<sup>1</sup></li> <li>• Twelve projects in discovery and assessment (market research/studies); 5 Confirmation (lab or field tests); 1 pilot project (DHP support); 4 support projects (modeling, test protocols, etc).</li> <li>• Progress in Q4 included:               <ol style="list-style-type: none"> <li>1. First Northern Climate Heat Pump Water Heater shipped to Redmond, Washington for testing to begin in Q1 2011.</li> <li>2. Draft Agricultural Market Assessment received.</li> <li>3. Draft Industrial Refrigeration Market Assessment received; summary presented at Food Processors show in January.</li> <li>4. Green Pumps draft technical specification and baseline assessment complete.</li> <li>5. Draft Industrial Voltage Optimization Assessment report received.</li> <li>6. Industrial energy management baseline measurement tool assessment/development study initiated.</li> <li>7. Streetlight controls market assessment initiated.</li> <li>8. Commercial Rooftop HVAC market/technology assessment initiated.</li> <li>9. Cold Climate Ductless Heat Pumps installations completed in Montana; data collection in progress; looks very promising at sub-zero temperatures.</li> <li>10. High Performance Residential Window Manufacturer survey complete; supply chain survey to be completed in January.</li> <li>11. European Heat Pump Water Heater market assessment survey completed.</li> </ol> </li> </ul>	

**Additional Information:** Initial results from monitoring "cold climate" ductless heat pumps in Montana (see 9. above) confirming NEEA lab test results and manufacturer performance claims. Draft results from NEEA's market assessment of industrial refrigeration systems identify six emerging technologies and five best practices for further investigation. These will serve as the basis for further development with the Northwest Food Processors Association and in broader industrial applications.

<sup>1</sup> Assumes full market adoption of technologies targeted by NEEA Emerging Technology efforts. Estimates based on data from 6th Power Plan where applicable.



LEVERAGING OUR REGIONAL ADVANTAGE

**PARTNER SERVICES**

Objective	Q4 2010 Market Progress	Status
<b>Online Regional Community</b> Launch online energy efficiency Web site/forum	Design phase completed with broad regional participation in Q3. Initiated development in Q4. <ul style="list-style-type: none"> <li>• Pilot began February, 2011.</li> <li>• Regional rollout expected Q2 2011.</li> </ul>	
<b>Regional Events</b> Deliver three or more “events” on topics of interest to the region	<ul style="list-style-type: none"> <li>• Inaugural efficiency conference – <b>EFFICIENCY CONNECTIONS NORTHWEST</b> – held December 1-2 in Seattle with 300+ participants.</li> <li>• Delivered two webinars in partnership with U.S. DOE/ARRA in November; delivered lighting webinars earlier in the year.</li> </ul>	

**EVALUATIONS**

Objective	Q4 2010 Market Progress	Status
<b>Published Reports</b>	Provide ongoing evaluation and market research for all NEEA initiatives in a timely manner that facilitates decision making <ul style="list-style-type: none"> <li>• <i>The Market for Energy Efficient Electronics: Pre-Program Findings on Consumer Preferences and Retail Shelf Stocking Practices</i> – Describes the state of the Northwest market for energy efficient televisions and desktop computers (November, 2010).</li> <li>• <i>NEEA’s Industrial Initiative MPER #6</i> – Assessed market penetration of the food processing sector (36%) and estimated annual energy savings per site at 3% (February, 2011).</li> </ul>	
<b>Other Evaluation Activities</b>	<ul style="list-style-type: none"> <li>• Conducted focus groups with consumers in Portland, Seattle and Spokane to investigate current awareness, perceptions and behavior related to compact fluorescent light bulb (CFL) purchase, installation, and storage behavior; and perceptions of CFLs.</li> <li>• Conducted focus groups in Portland, Seattle, Boise, and Great Falls to identify barriers to adoption of U.20 windows, and determine ways to overcome these barriers from the perspective of the supply chain network. U-factor ratings generally fall between 0.20 and 1.20, with a lower rate indicating products that are more effective at preventing heat escape.</li> </ul>	



OPERATIONAL EXCELLENCE

BUSINESS OPERATIONS		
Objective	Q4 2010 Progress Toward Objective	Status
<b>Continuously improve NEEA's effectiveness and efficiency</b>		
<b>Process &amp; Systems</b> Improve internal business process and systems	<ul style="list-style-type: none"> <li>Implemented Certificate of Deposit Account Registry Services (CDARS) investment program that provides FDIC coverage, ensures a market-competitive interest rate (estimated 0.5% average rate for invested funds in 2011), and flexibility for operational funding needs.</li> <li>NEEA's financial policies reviewed by Board Audit Committee. Updates approved by the Board December 10, 2010.</li> <li>Board approved Audit Committee recommendation to select a new independent auditing firm, Moss Adams, for the 2010-2014 business cycle.</li> </ul>	✓
<b>Workforce Culture</b> Build workforce with culture of positive high performance	<ul style="list-style-type: none"> <li>As of Dec. 31, NEEA had 57 full-time employees. Two positions were posted and are in the hiring process. NEEA's headcount target for 2010 was 60-62.</li> <li>Initiated scoping of the NEEA Cultural, Management, and Leadership (CML) Training program.</li> <li>Hosted an open house in NEEA's new offices in Dec., with strong attendance.</li> </ul>	✓
NEEA-WIDE		
Objective	Q4 2010 Progress Toward Objective	Status
<b>Continuously improve NEEA's effectiveness and efficiency</b>		
<b>Relationships</b> Strengthen relations with key influencers	<ul style="list-style-type: none"> <li>Continued to refine the NEEA Partner Relationship Management system. Made progress on key relationships by identifying and addressing issues.</li> <li>Convened inaugural regional energy efficiency conference in December—<b>EFFICIENCY CONNECTIONS NORTHWEST</b>. Event was sold out.</li> <li>Completed annual stakeholder perceptions survey. Survey helps NEEA better understand stakeholder perceptions, identify areas needing attention, and understand root cause issues.</li> </ul>	✓
<b>Bring value to the region and NEEA stakeholders pursuant to mission</b>		
<b>Regional Coordination</b> Advance regional collaboration	<ul style="list-style-type: none"> <li>Initiated NEEA support for the Regional Marketing Coordinating Council by organizing council planning meeting Q1 2011 and offering NEEA resources to support council activities.</li> <li>The Northwest Research Group met in November to share findings from recent evaluations of duct programs and reviewed the progress of the Residential Building Stock Assessment.</li> <li>The Advisory Group for the Residential Building Stock Assessment completed review of sample frame and contracting requirements, and established a process to finalize data collection protocols.</li> </ul>	✓