



Exhibit 10

2016-2017 Northwest Energy Efficiency Alliance Plan

November 1, 2015



2016-2017 Planned Activities Report Prepared for Puget Sound Energy

OVERVIEW

NOTE: Northwest Energy Efficiency Alliance (NEEA) is currently undergoing operations planning for its 2016 activities. All activities and budgets are pending NEEA Board approval at the end of 2015. If there are any material changes, NEEA will update the following information accordingly.

NEEA is a voluntarily funded non-profit organization working in partnership with Puget Sound Energy, the Bonneville Power Administration and more than 140 public and private Northwest utilities to accelerate energy efficiency on behalf of the Northwest's 13 million electricity consumers.

In 2016-2017, NEEA will deliver on its Board-approved strategic goals: 1) filling the energy efficiency pipeline with new products, services and practices; and 2) creating the market conditions that will accelerate and sustain their market adoption. This report summarizes NEEA's 2016-2017 planned activities to support these goals. It is based on the draft, unapproved version of NEEA's 2016 Operations Plan and the Board-approved 2015-2019 Business Plan.

FILLING THE ENERGY EFFICIENCY PIPELINE

On behalf of the region, NEEA scans the market for energy efficiency opportunities and conduct lab and field testing to verify product performance and energy savings. The following is a list of potentially viable emerging technologies, service or practices, which NEEA identified through its scanning process and will continue to investigate through 2016-2017:

- Residential combination systems
- Direct outside air systems with ductless heat pump
- Ultra-High Definition Televisions
- Residential Window Attachments
- Automated Measurement and Verification
- Space Heating and Cooling with Controls
- CO₂ Heat Pumps
- Lighting with Controls
- Agricultural Irrigation
- Window Attachments
- Power Strips
- Clothes Washers and Dryers
- Embedded Data Centers

NEEA is in the early phases of assessing the viability of these products for the region. Opportunities that demonstrate energy savings, are commercially available, and have market transformation potential will be selected for further investigation. Conversely, opportunities that do not meet these criteria will not be added to the portfolio.

CREATING MARKET CONDITIONS FOR ENERGY EFFICIENCY (ELECTRIC)

NEEA identifies market barriers to the adoption of energy-efficient products, services and practices, and removes those barriers through strategic market interventions. NEEA's 2015-2019 Business Plan directs NEEA to focus its market transformation efforts on four high-priority strategic markets: Residential New Construction, Residential Consumer Products, Commercial New Construction, and Commercial and Industrial Lighting.

Regional Market Strategies

To maximize long-term regional efficiency efforts, NEEA will facilitate the development of regional strategic market plans for all four strategic markets identified in the Business Plan. Regional strategic market plans will reduce overlap and coordination challenges among the region's efficiency stakeholders, resulting in more targeted and coordinated program and infrastructure investments, and delivering energy efficiency at an overall lower cost to the region.

In 2015, NEEA facilitated the developed the regional strategic market plan for the commercial and industrial lighting market. The plan establishes regional efficiency goals and strategies for this market, and assigns roles and responsibilities for achieving those goals. In 2016, NEEA will begin delivering on its responsibilities as indicated by the plan. Also in 2016, NEEA will launch the development of the Consumer Products regional strategic market plan, followed by the Residential and Commercial New Construction regional strategic market plans.

Residential Sector

In 2016-2017, NEEA's activities in the residential sector will be focused on its two strategic markets: Consumer Products and New Construction. Both of these markets represent long-term, leveraged opportunities for market transformation with significant energy savings and strong links to building codes and appliance standards.

Consumer Products Strategic Market

This market consists of the entire supply chain including manufacturers, distributors, retailers, contractors and installers that deliver consumer goods and services in high volume. Products sold through this supply chain include lighting, appliances, heating and cooling equipment, and consumer electronics. NEEA's portfolio currently includes four market transformation programs in this strategic market.

- **Heat Pump Water Heaters:** In 2016-2017, NEEA will focus on advancing a new small tank federal water heater standard by providing research and data in support of the next federal standards cycle. NEEA will work to increase the availability and sales of heat pump water heaters by testing new supply chain incentive strategies, providing stocking support to retailers and continuing to increase consumer awareness and confidence in the product.
- **Ductless Heat Pumps:** In 2016-2017, NEEA's Ductless Heat Pump program will have four focus areas: improving cost effectiveness and cost containment; increasing consumer confidence in ductless heat pump technology; increasing retail availability; and stakeholder engagement. NEEA staff will continue to discuss DIY ('do it yourself') installations with the region by working closely with manufacturers, and using program design strategies to influence cost effectiveness and containment and analyzing program data to better identify value proposition and barriers to adoption.

- **Retail Product Portfolio:** NEEA's Retail Products Portfolio (RPP) program uses mid-stream incentives to influence retail stocking practices – and ultimately drive manufacturing and standards – for a portfolio of energy-efficient products sold through the retail channel. In 2016-2017, NEEA will focus on deepening retailer relationships and improving regional alignment with one new retailer to be added to the collaborative for 2017. NEEA's role in this market also includes negotiating and analyzing regional sales data to support more stringent product efficiency. Key areas of focus in 2016 will be to streamline and increase transparency of the product selection process and to create a standard process to estimate incremental savings and savings potential for products in the portfolio.
- **Super-Efficient Dryers:** In 2016-2017, NEEA's Super-Efficient Dryers program will have four focus areas: engaging retail and distribution channels; increasing product choice by partnering with two new manufacturers and consulting with others considering product improvements; contributing to improved standards; and stakeholder engagement with Work Group members and others. NEEA will encourage and promote utility incentive support of Tier 2+ products, and support manufacturers to keep them engaged in the program.

Residential New Construction Strategic Market

This market includes the supply chain that plans, builds, sells and inspects new residential single-family and low-rise multi-family structures. NEEA will build and leverage strategic partnerships with homebuilders, home energy performance organizations, code allies and other market actors to coordinate advanced home efficiency requirements for adoption by this market. NEEA will also continue to provide training on new energy efficiency technologies and practices to ensure technical abilities and experience for builders and contractors in this market.

- **Efficient New Homes:** NEEA's 2016-2017 focus areas are: continuing the Next Step Home market tests, including analyzing performance data and developing advanced trainings; collaborating with utilities on new construction pilot programs; engaging regional real estate market actors; creating a residential new construction online resource center, including resources for builders, raters, providers and real estate market actors; leveraging code training to highlight advanced building practices; and, engaging stakeholders with new opportunities for performance-based programs and incentives.

Commercial Sector

In 2016-2017, NEEA's activities in the commercial sector will be focused in its two strategic markets: Lighting and New Construction. Together, these two markets represent over 50 percent of the energy savings in the commercial sector identified in the 6th Power Plan.

Commercial Lighting Strategic Market

This market includes the supply chain that manufacturers, distributes, specifies, designs and installs lighting equipment in commercial buildings. It includes both products (lamps, ballasts, controls and fixtures) as well as design and installation services that together affect over 20 percent of all commercial energy use in the region.

NEEA's portfolio currently includes five market transformation programs in this strategic market:

- **Luminaire Level Lighting Controls:** NEEA and its partners will develop best practices for luminaire level lighting controls, with the goal of having the technology installed as a standard industry practice in commercial office lighting. In 2016-2017, NEEA will launch and drive manufacturers toward a unified specification for luminaire-level lighting controls.

- **Reduced Wattage Replacement Lamps:** The goal of the Reduced Wattage Replacement Lamps program is to influence the stocking and promotion of reduced-wattage lamps in the lighting maintenance market. In 2016-2017, NEEA's focus will be creating new distribution channels, increasing demand and supporting manufacturer engagement with the goal of achieving 40% market penetration at participating distributors.
- **Top Tier Trade Ally Advanced Training (*optional*):** This is an optional program per NEEA's business plan, which Puget Sound Energy has opted to fund. NEEA's Top Tier Trade Ally Advanced Training program accelerates the market adoption of advanced lighting retrofit practices by connecting contractors with training resources and utility programs. In 2016-2017, NEEA will continue to work with utility partners to create and offer two training programs and will develop an approach to tracking program results and program progress over time.
- **Upstream Platform:** To support regional commercial lighting efficiency efforts, NEEA will develop and provide utilities with a platform of resources in 2016-2017. These resources will include a sales database made available to the region for business decision-making, a pool of participating distributors built through the Reduced Wattage Replacement Lamp program, and support for regional coordination and collaboration.
- **Commercial Lighting Infrastructure:** To influence the market to adopt more efficient lighting technology, NEEA will provide utilities with a set of tools and resources to support their programs.

Commercial New Construction Strategic Market

This market includes the community of businesses that develop, plan, design, build and commission new commercial buildings.

- **Commercial New Construction:** In 2016, NEEA will launch a Commercial New Construction program. The goal of this program will be to identify and promote new technologies by leveraging the normal code adjustment cycles to proactively drive code changes toward net-zero capable buildings by 2030.
- **Integrated Design Labs:** In 2016-2017, NEEA-supported Integrated Design Lab Network will continue innovating and supporting new projects and major building renewal projects. NEEA will also support development of tools needed to advance integrated design, construction and operation of low-energy consumption buildings.

Commercial Buildings (other strategic market)

- **Commercial Real Estate/Existing Building Renewal (*optional*):** This is an optional program per NEEA's business plan, which Puget Sound Energy has opted to fund. In 2016-2017, NEEA and its partners will engage leading commercial real estate firms to leverage NEEA's market transformation programs (i.e. Luminaire-Level Lighting Controls, Building Operator Certification and Secondary Window Glazing). NEEA will also promote its online Building Renewal tool and form an infrastructure plan for small markets.
- **Commercial and Industrial Strategic Energy Management (SEM):** NEEA's commercial and industrial Strategic Energy Management infrastructure program provides a holistic and integrated set of tools that support utilities and the market in building market capability, awareness and demand for SEM. In 2016-2017, NEEA will lead the new Industrial SEM Collaborative and support utilities to incorporate NEEA's SEM tools into their program design.

- **Secondary Window Glazing for Commercial Buildings:** In 2016, NEEA will launch a program to accelerate the market adoption of interior secondary window glazing for commercial buildings. Secondary glazing systems are super-insulating interior windows that can be installed inside a commercial building without replacing the existing windows at 50% the cost of new windows.

Industrial Sector

In its 2015-2019 Business Plan, NEEA scaled back its industrial/agricultural sector investment to a limited infrastructure effort and one market transformation program based on regional input.

- **Certified Refrigeration Energy Specialist:** NEEA will continue its efforts to increase industrial facility energy efficiency through the implementation of a certification program (Certified Refrigeration Energy Specialist) for refrigeration system operators. In 2016, NEEA staff have set a goal to increase the number of certified operators by 75%.
- **Industrial Technical Training (optional):** In 2016-2017, NEEA will continue its Industrial Technical Training program, which provides coordinated training on key industrial energy efficiency concepts to support industrial energy efficiency programs and build market capacity to facilitate implementation of Strategic Energy Management. This is an optional program, which Puget Sound Energy has opted to fund during NEEA's 2015-2019 business cycle.

Codes and Standards

NEEA's codes and standards work plays an important role in helping the Northwest secure long-term energy savings. In 2016-2017, NEEA will continue to support Northwest states in adopting and implementing energy codes and influence national and regional standards changes and equipment testing procedures.

- **Codes:** In 2016-17, NEEA will support the development of the Washington 2015 state code, and pending adoption, provide education, training and technical support to local jurisdictions implementing new codes. NEEA will also expand its Community Building Renewal pilot program to create an existing building policy that supports a new commercial code.
- **Standards:** In 2016-2017, NEEA staff will continue to provide input into the development and rollout of regional standards, and ensure the collective voice of the Northwest is represented in national standards rulemakings. To that end, NEEA staff provides technical expertise in U.S. Department of Energy (US DOE) rulemakings and encourages the adoption of optimal efficiency for federal appliance and equipment standards.

NATURAL GAS MARKET TRANSFORMATION

In 2015, NEEA's Board of Directors approved its first Natural Gas Market Transformation Business Plan for 2015-2019. The goal of the plan, which was developed collaboratively with Puget Sound Energy and others, is to accelerate the development and market adoption of efficient natural gas products, services, and practices, resulting in improved consumer choice and increased efficiency of natural gas use in the Northwest. NEEA's Natural Gas Business Plan is based on three key principles of operation: 1) no promotion of fuel switching; 2) no cross-subsidies between gas and electric; and, 3) implementation of gas efforts without diminishing existing electric market transformation work.

The plan includes funding for scanning activities, codes and standards, research and evaluation and five market transformation programs:

- Gas-fired heat pump water heaters
- Combination space and water heating systems
- Hearth products
- Super-efficient gas clothes dryers
- Rooftop HVAC

Natural Gas Portfolio

- **Gas-fired heat pump water heaters:** NEEA is working to accelerate product development of gas-fired heat pump water heater technology and to create market conditions that accelerate market adoption in order to influence a federal manufacturing standard. In 2016-2017, NEEA staff will pursue several opportunities to advance this program, including ongoing research and field testing, expanding manufacturer outreach and partnerships, defining product specifications and needs, and developing a business case supporting the need for this product.
- **Combination space and water heating systems:** NEEA seeks to create and leverage market partners to develop a combination space and water heating system at an efficiency exceeding current high-efficiency furnaces and stand-alone gas water heater technology. Doing so will ultimately create market momentum in the new construction and retrofit market to influence code. To accomplish this goal, in 2016-2017, NEEA will conduct stress, cold weather and real-world heating application testing to refine prototype designs, and will complete prototype testing in simulated real-world applications while switching between space and water heating modes.
- **Hearth Products:** The goal of this program is to increase the adoption of high-efficiency hearth products by influencing product stocking and manufacturing practices. In 2016-2017, NEEA staff will conduct research to understand market and consumer barriers; develop a tiered product specification; create regional parity through turn-key utility programs; and, influence product stocking and manufacturing practices through manufacturer and retailer incentives (incentives to launch in 2017).
- **Super-efficient clothes dryers:** The goal of this program is to increase the market adoption of super-efficient, natural gas-powered clothes dryers to influence the enactment of more stringent ENERGY STAR specification and ultimately federal efficiency standards. NEEA's 2016 objectives for efficient clothes dryers are to provide ongoing stocking incentives to retailers, exploring market potential through existing partnerships, the delivery of a market characterization study, and the identification of the next tier of high-efficiency gas dryers.
- **Rooftop HVAC:** NEEA seeks to increase market adoption of rooftop HVAC units containing gas-fired heating units in both new and retrofit markets. In 2016-2017, NEEA staff will conduct field tests to validate product performance and energy savings in partnership with two manufacturer partners. Along with these field tests, NEEA staff will begin conducting market research on rooftop HVAC sales and purchasing channels, and will identify associated energy savings potential and opportunities.

DELIVERING REGIONAL SERVICES

On behalf of its funders, NEEA provides regional services such as data collection, program evaluation, regional coordination and more. Below are some regional services NEEA will deliver in 2016-2017.

Regional Services

- **Efficiency Exchange conference:** Efficiency Exchange is a regional event targeted at Northwest utility energy efficiency staff. The event provides a regular annual forum for knowledge-sharing. In 2016 and 2017 NEEA will continue to partner with Bonneville Power Administration to coordinate and plan this annual conference. The 2016 conference will be held in Coeur d'Alene Idaho in April.
- **Conduit (conduitsnw.org):** In 2016-2017 NEEA will continue to host Conduit, an online community that provides information sharing, coordination and collaboration among energy efficiency professionals in the Northwest. NEEA will deliver ConduitED, an educational series that exposes the Conduit community to different fundamentals of the energy efficiency business in the Northwest.
- **Regional Market Intelligence (Previously Data Services):** In 2016-2017, NEEA's market intelligence group will develop data and market intelligence business requirements for internal and external customers as well as the associated infrastructure to address those requirements. Additional objectives include providing data management support for high-priority programs and strategic markets, developing and populating a census for Northwest commercial building data, and potentially managing a regional effort to update relevant, high-value end-use information across the residential, commercial, agriculture and industrial sectors, known as the End Use Load Research Project.
- **Market Research and Evaluation:** NEEA's Market Research & Evaluation program will continue to work with third-party evaluators to assess its market transformation programs and deliver market characterization and market assessment reports. Per the 2015-2019 Business Plan, NEEA staff will conduct stock assessments in the residential and commercial sectors staggered over five years, beginning with the Residential Building Stock Assessment in 2016. Additionally, NEEA staff will lead ongoing research, evaluation, training and compliance projects for ongoing regional strategic market and program assessments and launch a residential products tracking survey to potentially assist in the Consumer Products regional market strategy.

Stakeholder Advisory and Engagement Opportunities

NEEA's work complements and supports Puget Sound Energy's programs and Puget Sound Energy supports NEEA's regional work. This collaboration is coordinated through NEEA's regional advisory committees and work groups, which are critical in the success of its work. In 2016-2017, NEEA will continue to facilitate regional collaboration and solicit regional input through its advisory committees and work groups. Puget Sound Energy is represented of each of NEEA's advisory committees and most of its work groups.

Additional Information

More information on NEEA's market transformation programs, as well as NEEA's quarterly and annual reports, can be found at neea.org.

Questions or comments about this report? Please contact Virginia Mersereau, Communications Manager, 503-688-5491, vmersereau@neea.org.