

NEEP 2015 QUARTERLY REPORT THIRD QUARTER

Executive Summary

Energy efficiency has often been referred to as the least-cost, first-order resource for achieving reduced energy use and improving air quality. NEEP continues to play its role—bringing stakeholders together to find solutions for the climate and economic challenges we face today. With the support of our sponsors, partners, and funders from across the region and nation, NEEP continues to keep the region a national efficiency leader by advancing innovation and best practices, supporting leading-edge policies, programs, and strategies, and collaborating on development of strategies that accelerate energy efficiency on a regional scale. Highlights of our work this quarter include:

NEEP MISSION

Accelerate energy efficiency in homes, buildings & industry in the Northeast – Mid-Atlantic region.

Make Energy Efficiency Visible

- Began planning for the 2016 Northeast Energy Efficiency Summit and NEEP's 20th Anniversary Celebration: After taking a hiatus in 2015, NEEP turned its focus to planning for the 2016 event. The Summit and celebration will take place at the Omni Mt. Washington Resort on June 13-14, 2016. We are excited to bring the event to the Granite State for the first time and look forward to sharing New Hampshire's natural beauty and vision for a clean energy future with Summit attendees. The 2016 Summit and 20th Anniversary Celebration will offer an opportunity to reflect on the past 20 years of energy efficiency in the Northeast and Mid-Atlantic and look ahead to what the next generation of energy efficiency will bring.
- Business Leaders and NEEP Sponsors honored: Since 2006, <u>NEEP's Business Leaders Recognition Program</u> has been demonstrating that energy efficiency is good business. The program provides <u>NEEP Sponsors</u> (utilities and third-party program administrators) with the opportunity to nominate a business they have worked with to incorporate comprehensive efficiency and energy management into their business operations. The long-term goal of the program is to accelerate all cost-effective commercial and industrial energy efficiency in businesses across the Northeast and Mid-Atlantic.
- Engaged NEEP's audience and reached new stakeholders: Through www.neep.org, email marketing, blog posts, and social media, we highlighted NEEP's thought leadership and project achievements. Working with the communications teams at the other regional energy efficiency organizations (REEOs) and national NGOs, NEEP is able to share messages and communicate to a wider audience about the Northeast and Mid-Atlantic's role as an influential national leader and innovator of efficiency programs and policies, and share best practices as we collectively work to communicate energy efficiency's role as the least-cost energy resource to meet public policy goals.

Reduce Building Energy Use

Led code compliance prioritization efforts in Pennsylvania, Vermont, and Connecticut: <u>State Energy Code Collaboratives</u> are effective vehicles for bringing together diverse stakeholders to promote transparency and dialogue concerning energy code adoption and compliance. NEEP was recently selected to assume leadership of the <u>Pennsylvania Energy Code Collaborative</u>. This group aids the Commonwealth to achieve its 2017 90% energy code compliance requirement and has



NEEP Q3 2015 REPORT PAGE 2 OF 30

focused on energy code education and outreach strategies. In September, NEEP gathered input from the group and held a teleconference to help determine the next initiatives the Collaborative should undertake. In addition, after launching the Vermont Code Collaborative in May, NEEP organized the group's first teleconference in July to discuss the State Code Compliance Plan. Finally, NEEP coordinated a September teleconference of the core members of Connecticut code coalition to explore the future direction and priorities of the state.

- Led ground-breaking efforts to connect regional home energy labeling efforts: Reacting to the pursuit of home energy labeling policies or programs by all Northeast states, NEEP proposed a project earlier this year to solve a regional need for consistent streamlined transmission of data generated by U.S. DOE's Home Energy Score (HES) tool. In September, this project was selected for funding and will receive about \$800,000 of federal support. The objective of this three-year project is the creation of a Home Energy Labeling Information Exchange (HELIX), a highly accessible database for DOE HES information that will enable automatic transfer of this information into local Multiple Listing Services (MLSs). In addition, after signing on in May to participate in DOE's Home Energy Information Accelerator, which selected five leading local areas in which to expand the availability and use of reliable home energy information at relevant points in residential real estate transactions, NEEP developed a workplan on behalf of the Northeast states confirming several deliverables and program implementation milestones over the next two years.
- Facilitated a regional dialogue for high performance schools: NEEP hosted its annual high performance schools in-person meeting with 45 stakeholders from around the region participating. The group is a collaborative effort between state agencies, facility and energy managers, utility program administrators, health advocates, US DOE, and others, to promote operational savings and pave the way to zero net energy schools. The meeting included presentations on the value of benchmarking, operations and maintenance of a high performance school from the facility manager's perspective, a regional roundup of state-by-state high performance initiatives, and a tour of a NE-CHPS school, Thompson Elementary School. NEEP facilitated discussions focused around the central question: "If we continue down the path we are on today, will we reach our goal for high performance schools?" NEEP will utilize the results from these discussions to provide better support to stakeholders while trying to reach the ultimate goal of zero net energy schools.

Speed Adoption of High Efficiency Products

• Finalized a research report on Home Energy Management Systems (HEMS): The purpose of the HEMS Research Report is to demonstrate the potential for HEMS as an evolving avenue to deeper residential energy savings. The report explains the variations and characteristics of HEMS; what the market is and who the major market players are; what the major barriers to implementation look like; and finally, outlines potential program solutions with HEMS at the core of the strategy. The report included the following pieces: a downloadable technology assessment; M&V potential of HEMS; assessment of program activity; efficiency program opportunities; areas for further study; and policy opportunities and recommendations. This paper ranked third out of all NEEP document download rates, with 82 views this quarter. Dissemination of the report included a HEMS Research Public Webinar, Executive Summary, and PowerPoint slide-deck. The report findings are intended to inform program planning and promotion development for next year and into the future.



NEEP Q3 2015 REPORT PAGE 3 OF 30

• The DesignLights Consortium™ Qualified Products List (DLC QPL) continued to grow: The QPL grew by 13%, ending the third quarter with 125,971 listed products. 1,544 of those products are listed under the DLC Premium Classification which was introduced last quarter along with the Technical Requirements Table v.3.0. DLC worked on the development of specifications for new categories and primary use designations and released draft specifications for public comment for Phase I development. Draft specifications covered screw-base HID replacement lamps, non-full cutoff wall-packs, expansions to the 2- and 4-foot linear replacement lamp category, and expansions to the retrofit kit categories covering fluorescent-style incumbent fixtures. Additionally, DLC researched, and evaluated the following policies for Phase II development: expanding variability within Family Group applications while also providing clearer guidance on worst-case testing; evaluating the Retrofit Kit policy to allow for greater flexibility of retrofit kit designs; requiring tested LED drive current; removing the restriction on removable/replaceable lamps in luminaires; and incorporating color tunable products.

- Hosted a regional Air Source Heat Pump (ASHP) workshop: NEEP held a workshop in September to engage participation from program administrators and industry representatives concerned with the ASHP market. Participants included energy efficiency program administrators, ASHP manufacturers, and field implementers and contractor staff. The first day centered on lessoned learned from the field, research, and efficiency programs. Presentations by a panel of experts were followed by two sessions in the afternoon centered on cold-climate ASHPs. Stakeholders discussed whether it was appropriate for efficiency programs to promote cold-climate ASHPs given the added cost savings. The first day ended with discussions on the value of NEEP's Cold-Climate Air Source Heat Pump (ccASHP) specification. Stakeholders were supportive of the tool and its aim to adequately characterize heating performance and develop regional uniformity for programs. The second day featured presentation by seven manufacturers on their products and aims for the future.
- Finalized recommendations to DOE on training program structure and curricula for advanced lighting controls: Informed by input from the US DOE, DLC Members, lighting and control manufacturers, and designers/specifiers, NEEP submitted a final draft detailed Training Framework and Curricula recommendations to DOE in September. NEEP formed a new subcommittee composed of DLC Members, REEOs, manufacturers, and industry experts to build out the curriculum and develop the training implementation plan for distribution to DLC Members for implementation in 2016. This subcommittee will define the roles of DLC Members and REEOs that will host these trainings in their local territories, as well as the manufacturers who will partner to co-promote trainings and deliver the hands-on installer training. The implementation plan will outline the format for training program delivery, including logistics, frequency, and outreach recommendations for hosts and coordination and support expectations for participating manufacturers.
- Development of a regional Advanced Roof-Top Unit (ARTU) Market Assessment and Strategy:

 NEEP made significant progress towards completing the regional market assessment and
 accompanying market strategies. Included in the market assessment report is a survey of the
 current market, market barriers, and saving opportunities associated with the adoption of high
 efficiency RTUs in the Northeast. The Market Strategy report will also recommend several regional
 strategies to accelerate the adoption of High Efficiency RTUs and ARTUs in the region. In an effort to
 include industry-wide perspective, NEEP held interviews with industry stakeholders to gain further
 insight into the market. In early August, the entire working group reviewed a recent draft of the
 Market Strategy report, which is expected to be finalized in the beginning of the fourth quarter.



NEEP Q3 2015 REPORT PAGE 4 OF 30

• Completed draft Industrial Energy Efficiency (IEE) Market Assessment: This Market Assessment is the foundation and prime deliverable for this initiative. In it, NEEP provides an industry overview and quantification of industrial energy use. It paints a picture of tools and resources available from DOE as well as from utility and state programs in the region. It serves as a reference for concepts and terminology in industry and IEE. After the market assessment draft is reviewed and refined, NEEP will complete the package with a recommended strategy for the region going forward in. NEEP gathered valuable information from many of the regional stakeholders in development of the market assessment.

• Developed and submitted a comment letter to the residential gas furnace appliance standards rulemaking process: NEEP developed the comment letter with input from several regional stakeholders. NEEP conducted research and analysis to inform the positions in the letter and sought perspectives and data from around the region. The letter largely supported DOE's proposed levels of 92% AFUE but urged them to incorporate different assumptions into the analysis that would likely make the economics of a 95% AFUE standard preferable. Either of these levels will achieve significant energy savings important to the Northeast and Mid-Atlantic region. NEEP remained engaged with stakeholders outside of the region via ASAP's Technical Assistance Groups (TAG) made up of national and regional efficiency advocates. The TAG met by phone regularly to discuss both comment letter development as well as engagement with a variety of industry groups exploring the potential for a negotiated agreement.

Advance Knowledge & Best Practices

- Regional Evaluation, Measurement & Verification (EM&V) Forum explored the emergence of EM&V 2.0: This arena is characterized by research on big data, utilizing new data analytic tools, and the role of Software as a Service (SaaS) providers in helping streamline and enhance current EM&V practices. The project kicked off during the summer with a webinar on Changing EM&V Paradigm Landscape of New Tools and Data Analytics. The presentation provided background information on the use of big data and emerging data analytic tools that can support streamlining and improving EM&V practices. Research continued over the summer to study the implications of EM&V 2.0, which are not fully understood and are continuously evolving. The final report, due in November, will provide recommendations for regulators and program administrators on how EM&V 2.0 can support their needs and practices.
- NEEP heavily relied upon as a resource during New Hampshire's proceeding on the creation of an Energy Efficiency Resource Standard: Related to docket 15-137, NEEP participated in discussions, detailed subject matter in memo format, made several presentations, brought in other experts, and drafted topical resources for a series of technical sessions hosted by the Public Utility Commission (PUC). NEEP played a unique role in working directly in support of PUC staff, highlighting U.S. Department of Energy (DOE) SEE Action resource papers, communicating with utility representatives as well as other state agencies and stakeholders, and sharing best practices from our region and beyond. We were pleased to bring a key PUC staffer to witness the September meeting of the Mass. Energy Efficiency Advisory Council (EEAC) for New Hampshire to gain insights into how a leading state conducts its efficiency programs. NEEP will continue to be engaged as filings come in on November 2, with a final settlement expected in spring of 2016.





NEEP 2015 STRATEGIES AND PROJECTS

Keep the region a national efficiency leader by advancing innovation and best practices, and leading-edge policies, programs and strategies that deepen, broaden and accelerate energy efficiency on a regional scale.

STRATEGIES	OUTCOMES	PROJECTS
VISIBILITY	 Increased media coverage and public understanding and support of energy efficiency as a critical energy resource Northeast & Mid-Atlantic region widely recognized as national energy efficiency leader Visible business leadership for energy efficiency policies and programs NEEP Sponsors & Partners support and actively engage in regional collaboration to scale up efficiency 	 Northeast Energy Efficiency Summit Northeast Business Leaders Recognition Program NEEP Sponsorship & Partners Program NEEP Strategic Marketing & Communications
BUILDINGS	 The region leads the nation in adoption of, and compliance with, progressive building energy codes Markets value high efficiency homes, buildings States, municipalities commit to maintaining, building high performance schools, public buildings Model programs and resources address market barriers to energy efficiency retrofits in key market segments 	 Building Energy Regulation Market Valuation of Building Energy Performance Building Energy Best Practices
PRODUCTS	 Northeast leads in penetration of high efficiency products Higher baselines through appliance standards lock in market gains Regulatory policy supports new technologies and strategies to advance high efficiency options 	 High Efficiency Retail Consumer Products DesignLights Consortium™ SSL Qualified Products List High Efficiency Air Source Heat Pumps Commercial Advanced Lighting Controls High Efficiency Consumer Packaged HVAC Industrial Energy Efficiency Appliance Efficiency Standards
KNOWLEDGE	 The region leads the nation in transparent and publicly accessible EM&V and reporting practices that support energy efficiency as a public policy priority States and local government commit to and implement energy efficiency as a top energy priority 	Regional Evaluation, Measurement & Verification Forum Public Policy Outreach & Analysis



NEEP Q3 2015 REPORT PAGE 6 OF 30



Position the Northeast and Mid-Atlantic region as the national leader for efficiency as a critical and tangible energy resource to support environmental sustainability, a robust economy, and a reliable and affordable energy system.

Northeast Energy Efficiency Summit

• Save the Date for the 2016 NEEP Summit & 20th Anniversary Celebration: The 2016 Northeast Energy Efficiency Summit will be hosted on June 13-14, 2016 at the Omni Mt. Washington Resort in Bretton Woods, New Hampshire. The event will include panel discussions featuring energy efficiency leaders from around the region, topical workshops, recognition of the 2016 Northeast Business Leaders for Energy Efficiency, a tour of a high performance school, and exhibits of the latest and greatest in efficiency technologies and services. Stay tuned for details in the coming months.

Northeast Business Leaders for Energy Efficiency

• Business Leaders and NEEP Sponsors honored: Since 2006, NEEP's Business Leaders Recognition Program has been demonstrating that energy efficiency is good business. The program provides NEEP Sponsors (utilities and third-party program administrators) with the opportunity to nominate a business they have worked with to incorporate comprehensive efficiency and energy management into their business operations. The long-term goal of the Business Leaders Recognition Program is to accelerate all cost-effective commercial and industrial energy efficiency in businesses across the Northeast and Mid-Atlantic. In 2015, the 14 Sponsor-nominated Business Leaders collectively saved over \$4 million dollars, 25 million kWh, and 200,000 therms. NEEP Sponsors participating in the 2015 Business Leaders program included:

Connecticut

- United Illuminating Company (<u>Aptar-Stratford</u>)
- Eversource Energy (Rogers Corporation)
- Eversource Energy (<u>Web Industries, Inc.</u>)

Massachusetts

- Cape Light Compact (<u>Mashpee Wampanoag Tribe</u>)
- Eversource Energy (<u>Northeastern University</u>)
- National Grid (Stonehill College)

New Hampshire

- Liberty Utilities/Unitil (Concord Hospital)
- Liberty Utilities (Dartmouth College)
- Eversource Energy (<u>DevTech Labs, Inc.</u>)
- New Hampshire Electric Co-op (<u>The Holderness School</u>)

New York

PSEG-Long Island (<u>Ahold USA/Stop & Shop</u>)



NEEP Q3 2015 REPORT PAGE 7 OF 30

- Rhode Island
 - National Grid (Rhode Island Department of Transportation)
- Vermont
 - Efficiency Vermont (<u>Central Vermont Medical Center</u>)
- Washington, D.C.
 - DC Sustainable Energy Utility (<u>National Housing Trust/Enterprise Preservation</u> Corp.)
- Targeted dissemination of business leader case studies: NEEP continued dissemination of case studies of businesses that invest in and reap the benefits of energy efficiency by participating in NEEP Sponsors' commercial and industrial efficiency programs. These case studies show the value that strategic partnerships between businesses and ratepayer-funded efficiency programs bring to accelerating all cost-effective energy efficiency in businesses across the Northeast and Mid-Atlantic. They communicate the importance of efficiency programs to help businesses thrive, succeed, and grow while contributing to state clean energy goals.
 - Throughout the third quarter, NEEP highlighted the 2015 <u>winners</u> in a coordinated and collaborative outreach campaign that emphasized one winner per week. NEEP worked with the Business Leaders and Sponsors to bring attention to case studies via social media, the NEEP website, and partner channels. NEEP will honor the 2015 Business Leaders at a Recognition Dinner to be held November 12 at the <u>Northeast Industrial Efficiency Summit</u> at the Omni Mt. Washington Hotel.
- More attention for Business Leaders as a result of their award: Despite the lion's share of coverage occurring in the second quarter, coverage of Business Leaders continued to trickle in. Stories appeared on the following Business Leaders in both media outlets and partner channels:
 - o Central Vermont Medical Center here and here
 - o <u>Mashpee Wampanoag Tribe</u>
 - o Concord Hospital
 - o National Housing Trust-Enterprise Preservation Corp.
 - New England Clean Energy Council (NECEC) blog
- Targeted outreach highlighted Business Leaders in effort to create drum beat of business support for efficiency: NEEP continued to execute a four-month outreach schedule with a plan to highlight each Business Leader for one week, supporting the outreach with social media and blog activity. NEEP engaged Business Leaders, and the NEEP Sponsors who nominated them, to promote Business Leaders achievements, provide the case for the importance of efficiency as a valuable energy resource and economic development strategy, and enhance the region's collaborative effort to provide visibility to business efficiency. NEEP published two blog posts (part one and part two) as part of a three-post series on the 2015 Business Leaders. Over the course of the campaign, Business Leaders content drew over 1,000 people to the NEEP website, including almost 100 readers of the NEEP blog.
- Participated in panel discussion at 2015 AESP-NEEC Conference: NEEP collaborated with
 Eversource Energy and the AESP-NEEC planning committee to present a panel discussion on



NEEP Q3 2015 REPORT PAGE 8 OF 30

<u>business customer engagement</u>. Business customers play a critical role in the success of energy efficiency programs and engagement of these customers is a key priority for program administrators. The panel highlighted several approaches for engaging the important and often hard-to-reach business segment, featuring Eversource's Customer Engagement Platform (CEP) and NEEP's Business Leaders Recognition Program. Business Leader case studies are used in the CEP web-based portal to educate customers, ease the application process for incentives and technical assistance, and provide compelling stories of business success through comprehensive energy efficiency.

• **Prepared for next year's Business Leaders program:** NEEP began planning for the 2016 Business Leaders Recognition Program, which will kick-off in late November. After the initial solicitation from Sponsors and previous participants, NEEP will actively promote the program in January 2016.

NEEP Strategic Marketing & Communications

- NEEP's website acts as efficiency resource for visitors from around the country: Over the course of
 the third quarter www.neep.org attracted nearly 16,000 visitors, up 10 percent from the second
 quarter, with 85 percent of those visitors coming from the United States and most of them centered
 in the Northeast and Mid-Atlantic region. From Vermont to the District of Columbia, stakeholders
 visited www.neep.org to get information about cold-climate air source heat pumps, residential
 lighting and the Regional Energy Efficiency Database among many other efficiency topics.
- Engaged audiences on efficiency topics using multiple communications channels: NEEP's Strategic
 Marketing & Communications team worked with project staff to use email marketing, blog posts,
 and social media to spread the word and engage audiences about NEEP's products and thought
 leadership.
 - Advance Knowledge and Best Practices
 - What Con Edison's BQDM Project Reveals About Geo-targeting and Utility Incentives
 - Massachusetts Tackles Holy Grail of Energy Storage
 - A Call for Compliance: Energy Efficiency's Role in the Clean Power Plan
 - New Hampshire Poised to Enact Energy Efficiency Resource Standard
 - Energy Efficiency Policy Tracker Fall 2015
 - Reduce Building Energy Use
 - Insider Insight Walking the Corridors of a High Performance School
 - Speed Adoption of High Efficiency Products
 - What Heat Pump are YOU Buying?
 - The State of our Sockets: A Regional Analysis of the Residential Lighting Market
 - Game Changer: HEMS Are Crucial to Capturing Next Generation of Energy Savings
 - The Business Case for Energy Efficiency
 - A Diverse Cohort of Businesses Dedicated to a Single Cause: Saving Energy
 - The Secret Weapon All Businesses Share: Energy Efficiency
 - Don't Wait to Innovate: Industry Ramps up Efficiency



NEEP Q3 2015 REPORT PAGE 9 OF 30

- Gained attention through collaborative efforts to position the Northeast and Mid-Atlantic region
 as a national efficiency leader: NEEP appeared in several media stories that brought attention to
 the region as a national energy efficiency leader, while also demonstrating the value of efficiency as
 a critical energy resource. Through its work and the work of its partners, NEEP provided reliable and
 credible information to media through several placements over the quarter. Some highlights are:
 - o July 3: The Housing Scene (syndicated column) Guide for energy efficient buyers
 - July 7: Cape Cod Times Mashpee Wampanoag Tribe named leader in energy efficiency
 - o July 15: MacArthur Foundation Business Leader highlight
 - o July 17: New England Clean Energy Council (NECEC) blog Business Leaders
 - o July 23: Consulting-Specifying Engineer Magazine Defining net zero energy
 - September 18: Rutland Herald Vermont hospitals recognized

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IEEP Q3 2015 REPORT PAGE 10 OF 30



Make possible a future in which all homes and buildings are zero net energy, through incremental yet aggressive improvements to building energy policies and programs.

Building Energy Regulation

- Facilitated Energy Code Collaboratives in Delaware and New Hampshire: In addition to leading the Pennsylvania and Vermont Collaboratives as described in the Executive Summary, NEEP has played an active role in Delaware and New Hampshire Collaboratives since their inceptions in 2011 and 2012, respectively.
 - Delaware: NEEP continued to provide technical support to the Delaware Energy Code Coalition. NEEP attended the group's July meeting and, in response for the need expressed for commercial code training, worked with the state Department of Natural Resources and Environmental Control (DNREC) and the Pacific Northwest National Laboratory (PNNL) to arrange a training on ASHRAE 90.1-2010.
 - New Hampshire: NEEP continued to provide technical guidance to the New Hampshire Building Energy Code Compliance Collaborative to advance strategies set in the state's Code Compliance Roadmap. NEEP served on the group's 2015 IECC Adoption Subcommittee, attending its July meeting and informing the group's actions on potential amendments to requirements for existing homes and blower door testing. NEEP also attended the group's September meeting where NEEP continued to lead the Collaborative's pursuit of a home energy labeling program.
- Supported 2015 IECC adoption efforts in Maine, New Hampshire, and Massachusetts:
 - Maine: NEEP currently serves on the Maine Energy Technical Advisory Group (TAG) to help develop the state's code update, which will be based on the 2015 IECC/ASHRAE 90.1-2013. NEEP participated in the August Energy TAG meeting, providing members with regional and national resources and counterpoints to proposed amendments that would weaken the proposed code update.
 - New Hampshire: NEEP provided technical assistance detailing the energy and cost savings that the proposed 2015 IECC adoption would afford the state and home buyers to the New Hampshire Building Code Review Board at an August hearing. The State Code Review Board subsequently voted to send their approval of adoption of the unamended 2015 IECC to the state legislature, and NEEP is working with state officials and other interested stakeholders to accelerate the potential adoption date of this new code.
 - Massachusetts: NEEP supported code adoption efforts in Massachusetts by providing the state Department of Energy Resources with data from the Maryland field study that supports the feasibility of requirements of the state's proposed 2015 IECC-based code update.
- Supported cutting-edge code compliance enhancement efforts in Rhode Island: National Grid, in partnership with the Rhode Island Building Code Commission and NEEP, administers training



NEEP Q3 2015 REPORT PAGE 11 OF 30

programs (the savings from which it is allowed to claim as part of its regulatory proceedings) through its Code Compliance Enhancement Initiative. This quarter, NEEP contributed to the initiative's Implementation Working Group, which assesses and adjusts the training and outreach activities the program delivers, by participating in the group's August meeting and preparing a case study on efforts to develop the state's green building workforce by partnering with vocational/technical high schools to expose students to building science and energy code compliance concepts. NEEP also supported the initiative's Evaluation Working Group, which reviews program checklists and key performance indicators in order to guide attribution of savings, by participating in its July meeting and discussing how the evaluation framework could be adjusted based on the results of the state code compliance assessment that will be performed over the coming months.

- Assisted code compliance assessments in Maryland and Pennsylvania: NEEP continued to support
 the two federally funded <u>residential code compliance field studies</u> awarded to states in our region
 last year. NEEP attended Maryland's July stakeholder meeting for this project where initial study
 data was presented. NEEP provided insights as to potential causes for compliance gaps and
 opportunities to solve them and expanded its network of practitioners in the state. NEEP also
 assisted the Pennsylvania effort by providing administrative and contractual and technical support
 to the contractor working on this effort.
- Provided energy code support to regional partners upon request:
 - Connecticut: NEEP provided a comprehensive list of commercial code compliance assessments to Eversource.
 - District of Columbia: NEEP met with the District's Department of Consumer and Regulatory Affairs to discuss commercial code compliance gaps and strategies for overcoming them.
 - New Jersey: NEEP provided a detailed analysis of changes to the air leakage requirements of the state's adopted code and the state's proposed code, the 2015 IECC, which was adopted in September.
 - Pennsylvania: NEEP provided PECO Energy Company's consultant, Navigant, with a summary of the state's code adoption outlook to help inform the writing of the utility's five-year plan. NEEP also provided Navigant with a summary of states throughout the country implementing utility-claimed savings programs for energy code activities.
- Maintained national network of energy code allies: NEEP continued to engage with our national
 and regional codes counterparts, providing updates on our region through monthly teleconferences
 with Responsible Energy Codes Alliance (RECA), National Association of State Energy Officials
 (NASEO), Building Codes Awareness Project (BCAP), and the Northeast HERS Alliance. NEEP also
 participated in meetings with the National Energy Codes Collaborative, a joint partnership of the
 U.S. DOE, PNNL, BCAP, NASEO, and the other REEOs.
- Extended knowledge and resources through NEEP's Codes Leadership Group: NEEP continued to provide the group with relevant and timely state, regional, and national energy code updates. We also prepared to deliver our fall full-day meeting, which will be held in October.



NEEP Q3 2015 REPORT PAGE 12 OF 30

Maintained and updated online codes resource center: NEEP regularly updated its <u>Building Energy</u>
 <u>Codes Homepage</u>, <u>News Bulletin Board</u>, <u>Codes Tracker</u>, and <u>Resources</u> pages to feature the latest
 news, events, and resources on code adoption and compliance throughout the region.

Market Valuation of Building Energy Performance

- Developed a Renter's Guide and Checklist to Energy Efficiency: To compliment NEEP's growing real estate related resources such as the Guidance for Real Estate Professionals on Home Energy Efficient Attributes, we created a guide for those considering rental properties. The guide, to be released shortly, leads potential renters through all aspects of assessing the efficiency of a rental unit. Topics covered include heating and cooling equipment, envelop and weatherization, air sealing, appliance efficiency, lighting, and water and energy saving recommendations for all types of rental units. The guide will assistance renters in understanding the potential energy costs associated with a particular renter as well as gives low-cost or no-cost guidance to saving energy and money.
- Disseminated resources to the real estate community to ensure the full valuation of energy efficiency: NEEP continued to connect the real estate community with tools that enable energy efficiency characteristics to more easily be incorporated into the different segments of real estate transactions. NEEP worked with partners in the real estate industry to spread our Checklist for Real Estate Professionals of Home Energy Efficiency Characteristics, which enables realtors to incorporate the value proposition of energy efficient home attributes into their sales process. NEEP also engaged these partners to issue a poll to the regional real estate community in order to provide the most relevant and useful trainings on energy efficiency valuation in the real estate industry.
- Provided technical guidance to Rhode Island stakeholders on building energy rating: NEEP
 continued to support efforts led by the Rhode Island Office of Energy Resources to develop
 statewide building energy rating policies and programs by conducting research and participating in
 monthly commercial and residential working group meetings:
 - NEEP presented to the commercial working group in July on existing operational and asset rating options available to the state. In August and September, we researched and presented on the available metrics in ENERGY STAR Portfolio Manager to compare this with data already collected by National Grid. This information will inform the creation of a potential pilot program which aims to provide trainings, technical guidance, and additional incentives to include more buildings benchmarked in portfolio manager and rated with an ENERGY STAR score.
 - NEEP presented in July to the residential working group on existing asset rating metrics, tools, and label options as well as the general status of home energy labeling throughout the region. In August and September, NEEP provided technical assistance to guide the rollout of National Grid's DOE HES program in 2016 and helped to lead the discussion and selection of MMBtu/yr and the DOE HES tool as the primary metric and tool for a proposed Rhode Island statewide label.
- Provided technical guidance to New Hampshire and Pennsylvania residential labeling efforts: First, since leading the establishment of a Residential Labeling Subcommittee of the New Hampshire Energy Code Collaborative that aimed to develop recommendations for a home energy labeling program last year, NEEP has helped to compile matrices comparing such programs throughout the



NEEP Q3 2015 REPORT PAGE 13 OF 30

country, present findings to the full Collaborative, and prepare the group's draft recommendations. This quarter, NEEP presented the Subcommittee's final recommendations, which were unanimously accepted by the Collaborative. These recommendations focus on a two-pronged approach that seeks to incorporate both new and existing homes that will work in harmony with the federally funded Vermont-New Hampshire "REVEAL" energy rating project which began this summer. Second, NEEP joined and participated in a new stakeholder group to accelerate the uptake of DOE HES in greater Pittsburgh. NEEP presented this Western Pennsylvania HES working group with lessons from states such as Connecticut and Vermont to help shape the group's effort to grow the stock of assessed homes and assist the effort to engage the real estate community and add green fields to the West Pennsylvania MLS.

- Presented on the home energy labeling outlook to regional practitioners: In August, NEEP was asked to lead a webinar on home energy labeling for the Northeast HERS Alliance, which serves as a forum for information dissemination across the HERS Rater community for most of NEEP's region. To provide raters with an overview of home energy labeling in the Northeast and an understanding of the opportunity to translate these developments into expansion of their businesses, NEEP presented to about 30 stakeholders on types of ratings and metrics, existing tools and systems in place to support these ratings, and the latest updates and future outlook for statewide policy and program efforts for each of the ten states in NEHERS's service territory.
- Continued to Support DOE's Building Asset Rating programs: In addition to NEEP's HELIX initiative and participation in DOE's Home Energy Information Accelerator, NEEP provided technical assistance to DOE and the Lawrence Berkley National Laboratory (LBNL) to help improve the accuracy and applicability of DOE HES in the region. Specifically, we cited present and future state regulations supporting the incorporation of renewable energy generation into the Score and provided data in order to refine the performance assumptions that the HES tool uses to calculate energy use for cold-climate heat pumps. NEEP also continues to support the DOE's Commercial Asset Score by providing education and outreach promoting its use by states such as Rhode Island considering commercial labeling policies and programs.
- Supported national building rating efforts: NEEP supported the New York State Energy Research and Development Authority (NYSERDA) in their National Rating Working Group kick-off meeting to develop a label for multifamily and commercial buildings that will gain widespread market acceptance and accelerate the demand for buildings with high performance characteristics. NEEP brings extensive regional experience with rating programs to this diverse set of national stakeholders and serves on the technical committee to guide the development of the score.
- Supported communities with benchmarking and disclosure ordinances: NEEP continued to engage cities that mandate the disclosure of building energy usage with the goal of increasing energy efficiency by giving building operators clarity into their energy usage. NEEP tracks the benchmarking ordinances in the region and is able to bring best practices found in more established communities to stakeholders just establishing their programs. NEEP engaged the city of Cambridge, Massachusetts and many of the building operators of the city in a meeting to evaluate the first year of data from their Building Energy Use Disclosure Ordinance and to provide feedback on ways to clearly and effectively move to public reporting of this information in the future. NEEP's Building Energy Rating and Disclosure Policies: Update and Lessons from the Field was cited in the Southwest



NEEP Q3 2015 REPORT PAGE 14 OF 30

Energy Efficiency Project's (SWEEP) <u>Commercial Building Benchmarking Programs in the Southwest</u> report and in Seattle, Washington's <u>Building Energy Benchmarking Analysis Report</u>.

- Maintained regional and national network of energy rating allies: NEEP shared information on regional building energy rating activities through its Building Energy Codes and Public Buildings Leadership Groups. We continued to engage with our national and regional codes counterparts, most notably by providing updates on our region through coordination with allies such as the Institute for Market Transformation (IMT), and NASEO.
- Maintained and updated online rating resource center: NEEP regularly updated its <u>Building Energy Rating Homepage</u> and <u>Resources</u> pages to feature the latest news, events, and resources on commercial energy benchmarking and home energy labeling. These resources help to accelerate building energy rating efforts throughout the region by providing state and municipal officials with news on building energy rating initiatives underway throughout the region.

Building Energy Best Practices

• NE-CHPS Criteria updated with new MSBA regulations: NEEP engaged with the Massachusetts School Building Authority (MSBA) to add new regulations to its Sustainable Design Guidelines. With this policy update, MSBA now recommends all new construction/major renovations use NE-CHPS 3.0 or LEED V4. The policy update further incentivizes improved energy performance by providing a 2% reimbursement on a 15% minimum reduction in energy usage compared to the baseline of ASHRAE 90.1 or IECC 2012. The updated NE-CHPS Criteria along with the MSBA memo highlighting these changes is published on the NEEP website.

Minimum Requirements	Additional Reimbursement
Using LEED-S V4, for no additional reimbursement,	Using LEED-S V4, for 2% additional reimbursement
achieve a minimum of "Certified" (40 points),	points, achieve a minimum of "Silver" (50 points),
including a minimum of 3 points in EA Credit	including a minimum of 6 points in EA Credit
"Optimize Energy Performance." OR; Using NE-CHPS	"Optimize Energy Performance." OR; Using NE-CHPS
3.0, for no additional reimbursement, achieve a	3.0, for 2% additional reimbursement, achieve a
minimum of "Verified" (110 points for new	minimum of "Verified" (110 points for new
construction or 85 points for addition / renovation),	construction or 85 points for addition / renovation),
including 6 points in EE Prerequisite #1.0.	including a minimum of 9 points in EE Credit #1.1.

Additionally, NEEP participated in a webinar with the MSBA and the Collaborative for High Performance Schools (CHPS) to broadcast information regarding the adoption of NE-CHPS Criteria 3.0 by MSBA. The purpose of this webinar – "Back in Mass: New CHPS Criteria for Massachusetts" – was to demonstrate the differences between 2009 MA-CHPS and the updated criteria of NE-CHPS 3.0. The webinar also highlighted MSBA's new policy incentives, comparison of LEED-S V4 to NE-CHPS 3.0, and gave a general background on NE-CHPS criteria.

• Facilitated Rhode Island High Performance Schools Leadership Group: The purpose of this group is to promote operational savings through energy efficiency improvements while paving the way to zero net energy schools. An in-person meeting focused on the launch of the new RI School Building Authority (SBA) and provided an overview of the SBA Capital Fund. The leadership group began brainstorming ideas for the upcoming SBA event to take place early in 2016. This platform allowed



NEEP Q3 2015 REPORT PAGE 15 OF 30

NEEP to gain an understanding of what type of assistance the leadership group needs to achieve a clear path forward.

Disseminated NE-CHPS, Operations and Maintenance Guide, and other resources: NEEP organized the energy track for the Massachusetts Facilities Administrators Association (MFAA) annual conference. This track consisted of three presentations, including one given by NEEP and the U.S. Environmental Protection Agency (EPA) titled; "Making the Case for Energy Efficiency Improvements in your School". Attendees of this track learned about benchmarking, health attributes of energy

efficient schools, utility program incentives, and more. Participants also had the opportunity to discuss successes/failures of energy improvement projects and share how they were able to overcome obstacles. Additionally, at the expo portion of this three-day event, NEEP exchanged information with interested parties regarding NEEP resources such as NE-CHPS, Operations and Maintenance Guide, Roadmap to Zero Net Energy, and street lighting. NEEP also organized a group tour of Monomoy Regional High School – a new NE-CHPS school.



Facility Director, Steve Litwinowich (middle), leads the tour of Monomoy Regional High School

- **Developed a case study of an exemplary high performance school:** NEEP developed a case study to highlight an exemplary public school building in Massachusetts—Monomoy Regional High School in Harwich, MA—which was designed to meet NE-CHPS 3.0 Criteria. The case study showcases the many high performance features of the school that make it an ideal learning environment.
- Highlighted exemplary multifamily retrofit programs from the region: NEEP facilitated a webinar for the Regional Multifamily Retrofit Leadership Group with the New Buildings Institute (NBI), Public Service Enterprise Group, and MaGrann Associates. This webinar provided regional stakeholders with exemplary retrofit projects from New Jersey, best practices and strategies for efficiency program design, and strategies to overcome barriers common to the sector. The group was also introduced to NBI's efforts to consolidate the building energy code for multifamily buildings to create a more streamlined process for builders while ensuring cost-effective energy savings.
- Building partnerships toward healthy housing: NEEP actively participates in the Rhode Island Association of Health Housing Policy and Data Action Teams. The Association is an affiliate of the Green and Healthy Home Initiative, which "aligns, braids & coordinates healthy housing information, resources & services to improve the health, safety & energy efficiency of homes." NEEP is active throughout the state of Rhode Island in various capacities including working directly with the State Energy and Code Offices, National Grid, and the state's Zero Net Energy Task Force. NEEP brings extensive connections and resources to assist with the advancement of the weatherization and energy efficiency retrofit of multifamily housing throughout the state.
- Collaborated with regional and national stakeholders to increase multifamily energy efficiency retrofits: NEEP organized and hosted the kickoff meeting for the Regional Energy Efficiency



NEEP Q3 2015 REPORT PAGE 16 OF 30

Organization (REEO) Multifamily Retrofit Project. This meeting brought together members from four other REEOs to launch a project that will bring different regional strategies and best practices together to inform a national strategy report that capitalizes on the experiences of our network of partners to create a guide to achieving 20% energy savings in multifamily buildings. NEEP also contributed regional best practices to groups consisting of national stakeholders focused on financing strategies and energy data access for the affordable multifamily market through the Network for Energy, Water, and Health in Affordable Buildings (NEWHAB).

- Continued to lead the development of a national energy efficiency leadership agenda for state and local governments: NEEP's Carolyn Sarno Goldthwaite co-chairs the <u>SEE Action Existing Commercial Existing Commercial Building Working Group</u>. The agenda will establish a national benchmark for state and local government leadership on energy efficiency by defining a suite of bold-yet-practical solutions they can take over the next five years. Carolyn facilitated a national working group to help refine the agenda, which will be finalized in the coming months.
- To advance best practice for zero net energy over the quarter, NEEP:
 - o Began to update the <u>Roadmap to Zero Net Energy Public Buildings</u>. The initial publication debuted in 2012 with "Critical Next Steps" for states to follow to put them on the pathway to ZNE. Three years later, we are assessing where the region is by issuing a "progress report" that will provide a state-by-state overview and help identify where opportunities exist in the region. The update will also highlight exemplary ZNE initiatives, links to ZNE databases, and information on the utilities' role in ZNE and community resiliency. It will be available in December 2015.
 - The US DOE officially released its definition of Zero Net Energy: "Generally speaking, a zero energy building produces enough renewable energy to meet its own annual energy consumption requirements, thereby reducing the use of non-renewable energy in the building sector." NEEP assisted in the development of this definition by submitting comments and, at the request of DOE, participating in the advisory group.
 - Participated in the Rhode Island Zero Net Energy Council, which is helping to create a roadmap for the state with regards to residential, multifamily, and commercial buildings.
 In addition to the council meetings, NEEP provided feedback and met with National Grid to provide technical guidance.
- Maintained and updated online schools and public buildings resource center: NEEP regularly
 updated its <u>New Bulletin Board</u>, <u>High Performance School's State Pages</u>, and <u>blog</u> to feature the
 latest news, events, and resources on high performance schools and public buildings. These
 resources provide easy access for information by interested stakeholders and assist with NEEP's
 dissemination strategy.



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NEEP Q3 2015 REPORT PAGE 18 OF 30



Identify and accelerate the adoption of high-efficiency residential and commercial lighting and consumer products through education, incentive programs and public policies.

High Efficiency Retail Consumer Products

- **Published residential lighting whitepaper**: NEEP published "<u>State of our Sockets</u>," which looks at the big picture of the residential lighting market, market transformation, and the appropriate role for efficiency programs. NEEP believes that using the market transformation perspective enables us to view the market in a way that can best inform decisions about the future of efficiency programs. The whitepaper was the second-most downloaded document on NEEP's website with 92 views.
- Planned for the residential lighting workshop: The 2015 Residential Lighting Workshop was
 planned for October 1 to take place at Osram Sylvania's Lightpoint facility in Danvers,
 Massachusetts. The agenda focuses on market transformation, smart lighting products, and new
 LED products entering the market.
- Hosted a Residential Lighting Committee meeting: NEEP held a Leadership Advisory Committee
 meeting in July to discuss progress on the RLS to-date as well as initial planning for the 2015
 Northeast Residential Lighting Workshop. Earlier in the year, NEEP collected key lighting data from
 program administrators to inform the analysis for the 2015 RLS Update. The update, expected early
 in the fourth quarter, will include: lighting baseline guidance, summary of smart lighting options and
 controls, information on lighting market transformation, and updates on key residential lighting
 activities throughout the region.
- Sponsors worked toward Home Energy Management System (HEMS) promotions: NEEP leads a
 HEMS Working Group with the goal to advance HEMS promotions in the region. In the third quarter,
 the HEMS Working Group held two webinars to provide an opportunity for stakeholders to share
 updates and build relationships and work toward finalizing the HEMS Common Understanding
 document to align efficiency programs and HEMS vendors on expectations, at the request of NEEP
 Sponsors.
- Sponsors highly satisfied with Retail Products Initiative: NEEP held the third-quarter Retail Products Working Group meeting to discuss regional strategies in consumer electronics programs, with participation from 10 program administrators representing 50% of the sponsoring states. When polled, "Would you participate in these meetings if they continued in 2016?" 100% responded affirmatively. NEEP also provides a monthly update newsletter to members of its Retail Products Working Group, which averaged a strong 34% open rate compared to the average open rate for non-profit membership organizations of 11.66%, demonstrating that project Sponsors are actively using NEEP materials and resources.
- Provided input to federal and state activities: NEEP submitted several comment letters to ENERGY
 STAR regarding product specifications. NEEP, along with PSEG Long Island and Efficiency Vermont
 submitted comments concerning the 2016 Most Efficient Criteria. Also, along with Cape Light
 Compact, the District of Columbia Sustainable Energy Utility (DC SEU), Efficiency Vermont, Liberty
 Utilities, and Eversource Massachusetts, NEEP submitted comments concerning the 2.0 Lamp



NEEP Q3 2015 REPORT PAGE 19 OF 30

Specification, Draft 3. Lastly, along with Vermont Energy Investment Corporation, we submitted comments concerning <u>Connected Thermostats</u>.

- Participated in the ENERGY STAR Retail Products Platform: To connect program administrators to
 valuable new opportunities in program design, NEEP participates in the ENERGY STAR Retail
 Products Platform (RPP) initiative, which is working with stakeholders across the nation to create a
 unified mid-stream efficient product program with national retail partners. NEEP attended monthly
 calls for the RPP EM&V Task Force and bi-weekly calls for the larger RPP organizers concerning the
 implementation of a nation-wide pilot of the RPP.
- Updated the web-based retail consumer products resource center: Tracking web-traffic analytics, we found that these sites were visited significantly. The average on-page viewing time of the <u>Advanced Power Strips (APS)</u> and <u>HEMS</u> pages is 2:22 minutes, compared to a NEEP website average of 1:51. Additionally, we contributed a HEMS blog titled, "<u>Game Changer: HEMS are Crucial to Capturing Next Generation of Energy Savings</u>" and a lighting blog titled, "<u>The State of our Sockets: A Regional Analysis of the Residential Lighting Market.</u>"
- Conducted research to inform a white paper on e-commerce: NEEP researched and began drafting
 the e-commerce white paper, to be published in the fourth quarter. To inform the research, NEEP
 conducted interviews concerning existing energy efficiency e-commerce pilots. The final paper will
 discuss existing e-commerce pilots and strategies for online efficiency programs.
- Attended regional and national meetings: NEEP staff attended both the CEE Industry Partners
 Meeting and AESP/NEEC in September to engage with fellow efficiency stakeholders and industry
 representatives.

DesignLights Consortium™ Solid State Lighting Qualified Products List

Maintained DLC resources: NEEP served DLC members by maintaining the <u>DesignLights</u>
 <u>Consortium™ Solid State Lighting Qualified Products List</u> (DLC SSL QPL) via a publicly available, searchable, and comprehensive web-based listing of qualifying SSL products. The QPL and its

technical requirements are the backbone of the DLC project that members rely on to promote high-efficiency lighting products and achieve energy efficiency program savings goals. The DLC QPL grew by 14,509 in the third quarter, leaving the product count at an impressive 125,971 products by the end of September. This represents products from approximately 1,304 different luminaire manufacturers, an increase of 8% from the previous quarter.





NEEP Q3 2015 REPORT PAGE 20 OF 30

• Increased Web Traffic: Over the course of the third quarter, the DLC website received 469,793 page views by 45,021 users, 27.5% of which were new users. This represents a 10% increase in page views and 2% decrease in total users compared to last quarter. About 70% of the total sessions on the website came from the U.S., while roughly 14% came from China, and approximately 10% from Canada. The remaining visits came from countries including Taiwan, South Korea, India, Hong Kong, United Kingdom, and Mexico. This shows the diverse and wide use of the DLC QPL as well as its continued relevance in the lighting market as more and more users make their way to the resources online.

- Category development: The DLC continued to work on the development of specifications for new categories and primary use designations consistent with the process described at this year's DLC Stakeholders Meeting. The comment period for Phase I development, including screw-base HID replacement lamps, non-full cutoff wall-packs, expansions to the 2- and 4-foot linear replacement lamp category, and expansions to the retrofit kit categories covering fluorescent-style incumbent fixtures, closed. DLC is in the process of revising the proposals based on this feedback and discussions with the Technical Committee. DLC expects to have final requirements for these category expansions complete in early October.
- Policy development: The DLC began consideration of the next categories and primary uses to
 develop during this year's "Phase II" part of the process. Potential categories requested were
 discussed with the Technical Committee and broader membership for prioritization. DLC anticipates
 distributing these additional category proposals for consideration in late October or early
 November.
- Challenge testing policy reviewed: The challenge testing policy has undergone third-party review with recommendation for streamlining the program, and managing the program and costs to operate the program. The implementation timeline will be established in the fourth quarter.
- Maintaining the integrity of the DLC brand: The DLC has two main registered logo trademarks ("DLC Logos"). DLC also uses and protects the trademark "DesignLights Consortium." The DLC Logos, as well as the trademark "DesignLights Consortium" are all either pending applications or registered with the US Patent and Trademark Office. These trademarks are the DLC identity and a valuable asset that must be properly used and protected.
 - Monitored DLC logo use compliance: This quarter, DLC discovered that 49 manufacturers misrepresented the nature of their products to the DLC during the application process and were able to obtain DLC qualification for products that employ screw bases. As a result, approximately 1,220 products were removed from the QPL. Manufacturers of these products will face a two-month suspension from submitting new applications, and any applications open at the onset of the suspension have also been put on hold. The DLC continues to monitor access to and use of the logo on marketing materials and websites.
 - Brand strategy development: A new brand architecture, branding elements, and messaging were developed by contractor Brand Cool and are under review. By the end of the quarter, DLC received recommendations for a website re-skin which will be implemented in the fourth quarter to improve user interface and usability.
- **DLC Member meetings and communications:** We held regular DLC Member meetings and DLC Technical Committee meetings, and also prepared and distributed updates to DLC Members and



NEEP Q3 2015 REPORT PAGE 21 OF 30

industry including program updates, general information, and announcements through the DLC Member Update, the DLC Industry Update, and Stakeholder Meeting E-blasts.

- Increasing Memberships: DLC began to collect C&I budget information from existing membership to inform the 2016 planning process. DLC is also in discussion with several potential new members including ConEd and LADWP.
- Hosted the DLC QPL Annual Stakeholder Meeting: The <u>annual Stakeholder Meeting</u> was held August 3-6 in Washington, DC. Attendance increased by 15% from last year—from 186 in 2014 to 215 in 2015. DLC attracted stakeholders from across the industry, including 43 utility program managers. The event engaged a robust dialogue about important issues such as DLC Category and Policy Development, Color Tuning, and <u>Commercial Advanced Lighting Controls</u>. This year's conference included discussion sessions, a new format of conversation which allowed attendees to discuss specific topics in small groups and allowed DLC to collect focused feedback.
- **Briefings, Presentations, Webinars, Receptions.** The DLC had a presence at four conferences and meetings, and hosted three technical webinars this quarter.
 - On July 29-30, Program Manager Irina Rasputnis attended the American Society of Agricultural and Biological Engineers (ASABE) committee meeting on horticultural lighting in New Orleans, LA.
 - On August 3-6, the DLC hosted the fourth annual DLC Stakeholder Meeting in Washington,
 DC. Staff presented during various workshops and on panels.
 - On September 16-18, Irina Rasputnis and Director Tina Halfpenny attended the West Coast Utility Lighting Team Meeting in Portland, OR. Irina presented updates on various DLC developments including CALC.
 - On September 22-25, Tina Halfpenny and Program Manager Gabe Arnold visited the Atlanta area to meet with various manufacturers including Acuity and Hubbell Lighting.
 - On July 16, DLC hosted a webinar for laboratories as part of the DLC's recurring technical webinar series.
 - On July 27, DLC hosted a <u>webinar</u> on newly release draft specifications for DLC Technical Requirements v3.0.
 - o On September 1 and 15, DLC held repeating <u>webinars</u> on the newly released Controls draft specifications.
- Increased social media presence: This quarter, <u>@DesignLightsSSL</u> gained approximately 50 new followers on Twitter as a result of tweets about industry news, conference outcomes and observations, as well as general updates from DLC.
- **Preparing for the future:** Business planning for 2016 is underway, which includes an updated lighting and energy efficiency programs market assessment, stakeholder map, opportunity and risk analysis, and business line planning with budget and revenue projections. The Commercial Advanced Lighting Controls project is included in the DLC business planning exercise to chart out the future organizational structure and strategy for the DLC.

High Efficiency Air Source Heat Pumps

• **Cold-Climate Air Source Heat Pump (ccASHP) specification listings:** With the publication of the <u>ccASHP specification</u>, stakeholders across the region now have a model equipment and



NEEP Q3 2015 REPORT PAGE 22 OF 30

performance requirement specification. The specification and its associated metrics were developed to help regional stakeholders better identify products that perform under low-temperature conditions. By collaborating with program implementers, an additional 91 units were added to the previous 71. Five nationally recognized manufacturers participate in the process. Their interest clearly demonstrates the necessity of the ccASHP specification as it aims to move the market. The currently listed models are intended for engineers, contractors, and other practitioners who need assurance that the equipment they select will have the required heating capacity at certain temperatures and will serve the load efficiently throughout the ambient temperature range. The specification is seen as a tool that various stakeholders can utilize when promoting ASHPs to provide better assurance that the units installed are performing during the coldest parts of the winter season. Low temperature performance will strengthen the reputation of ASHPs in the region and drive accelerated adoption of the technology.

- Efficiency programs adopt and use NEEP's Cold-Climate ASHP specification: NEEP works with
 efficiency programs that promote ASHPs. These programs would require manufacturers to meet
 the ccASHP specification and list their products on the NEEP website in order to receive incentive
 rebates. NEEP has been in discussion with additional programs to join the Massachusetts Clean
 Energy Center in leveraging the ccASHP specification.
- Hosted a regional ASHP Working Group meeting: NEEP leads an ASHP Working Group and
 associated sub-committees with the goal to effectively implement the strategies included in the
 2014 <u>ASHP Market Strategies Report</u>. The ASHP Workshop sub-committee held a quarterly meeting
 with eight participants on July 14.
- Submitted regulatory/policy comments and guidance: To assist in the long-term planning for
 efficiency programs, NEEP contributes technology-specific comments to relevant planning
 processes. NEEP provided written comment to the Vermont Public Service on their 2015
 Comprehensive Energy Plan and advised them on opportunities associated with efficient coldclimate ASHPs.
- Cold-Climate ASHP specification drawing interest from market: In the third quarter, the ccASHP specification webpage garnered 1,966 page views, compared to last quarter's 1,181. The specification document was downloaded 267 unique times and is ranked first for document download rates on the NEEP website.
- Contributions made to social media: The recent blog, '<u>What Heat Pump Are You Buying?</u>"'
 performed better than other product-based blogs with 132 page-views.

Commercial Advanced Lighting Controls

Progress made on incentive strategy and new working group subcommittee: NEEP is working with
DOE and DLC Members to develop a Unified North American incentive strategy for Advanced
Lighting Controls. A unified strategy will enable large-scale leveraging and partnerships between
the lighting industry and energy efficiency programs. NEEP formed a new subcommittee composed
of representatives from six geographically diverse DLC Members with experience in program
planning to determine an approach suitable to a wide variety of program types. A meeting will be
held in October to review the objectives and formulate an initial plan that will be circulated to
members and industry for comment and finalization.



NEEP Q3 2015 REPORT PAGE 23 OF 30

• Continued progress on Demonstration Projects: NEEP continued to make progress in implementing the Advanced Lighting Control Demonstration Projects. Site kick-off meetings were held with DOE and all project participants at the Rhode Island Public Utilities Commission Office in Warwick, RI and the Two Roads Brewing Company in Stratford, CT. These two projects are expected to be installed before the end of the year.

- Completed first round of stakeholder comments on DLC's new Advanced Lighting Control Specification: NEEP issued the first draft of the Networked Lighting Control Specification for stakeholder comment on September 1 with comments due back on September 29. NEEP hosted two webinars on the specification attended by 200 stakeholders. The specification and corresponding Qualified Products List will form a cornerstone for energy efficiency program support of Advanced Lighting Controls in North America. Over 250 comments were received from the lighting industry representing 19 lighting manufacturers, 1 industry trade association, and 1 Standard Development Organization. DLC is currently reviewing comments with their members and the lighting industry to inform a revised draft of the specification.
- Completed BETA testing of ALCS Energy Estimator Tool: On September 15, NEEP completed BETA testing of the new Advanced Lighting Control System (ALCS) Energy Estimator Tool with a group of utilities/energy efficiency programs from the Northeast region. NEEP is utilizing feedback provided by BETA testers to develop a revised version of the tool to be deployed in 2016.
- Continued stakeholder engagement: In August, NEEP hosted the DLC Stakeholder Meeting in
 Washington D.C. that was attended by over 200 industry stakeholders. The CALC project was the
 topic of three workshops/panel discussions and discussed at length with industry stakeholders.
 NEEP also held a project Advisory Committee meeting in September with project Sponsors and
 Advisors to review project deliverables and advise future direction.

Advanced Commercial HVAC Roof-Top Units

- Expanded the web-based resource center: NEEP added a distinct "Advanced Rooftop Unit" page to
 the website. The <u>ARTU Landing Page</u>, which is educational until the research report and additional
 resources are completed, has garnered 30 page views since its publication.
- **Engagement in national and regional meetings:** NEEP staff attended the CEE Industry Partners Meeting to engage with fellow efficiency stakeholders. Discussions with conference attendees provided constructive input towards the strategy development process.

Industrial Energy Efficiency

- Co-hosted regional working group meeting: In partnership with Greg Baker at Efficiency Vermont,
 NEEP helped organize and a Regional Industrial Energy Efficiency teleconference on October 6. NEEP
 presented on a number of important topics including an update on the development of the regional
 market assessment, a sneak peak of the SEM Training agenda that DOE is preparing to deliver at the
 Northeast Industrial Efficiency Summit, and an update on NYSERDA's Expert Directory. Twelve
 regional stakeholders attended.
- Industrial Summit planning: NEEP conducted many planning activities in preparation for the November 12-13 Northeast/Mid-Atlantic Industrial Energy Efficiency Summit to be held in Bretton Woods, NH. NEEP worked in coordination with trainers from DOE to prepare a training agenda for day one. The agenda for day two's workshop was also largely finalized.



NEEP Q3 2015 REPORT PAGE 24 OF 30

Regional and national coordination: Director of Market Strategies Dave Lis attended and
participated in the 2015 ACEEE Summer Study for Industry on August 4-6 in Buffalo, NY. NEEP also
joined a meeting hosted by DOE with other REEOs to share activities and learn more about DOE
resources related to industrial efficiency.

Appliance Efficiency Standards

- Convened Appliance Standards Working Group via webinar: To facilitate regional stakeholder input and share information and best practices, NEEP convened the third quarterly meeting via webinar on September 30. The webinar engaged 15 stakeholders from across the region to discuss the ongoing furnace standard rulemakings, and prepare for upcoming appliance standards opportunities. This engagement promotes understanding and awareness of appliance standards as a valuable policy mechanism to achieve cost-effective energy savings.
- Engaged DOE and CSA to improve Heat Pump Test Procedure and standard: Current test procedures for air-source heat pumps do not accurately reflect a heat pump's ability to perform at low temperatures (below 17F). As technology evolves and low temperature performance improves, it will be critical for an industry standard test procedure and ultimately the minimum performance standard to adequately differentiate this performance, especially for consumers in the Northeast region. NEEP's cold-climate ASHP specification seeks performance data at 5F and currently there are no industry standards or test procedures that define testing. Developing such a test will greatly improve the usefulness of the specification. NEEP engaged two different processes seeking to influence their ultimate results:
 - DOE recently opened a regulated negotiation for the next update for central airconditioner and heat pump test procedures and standards. The negotiation involves a broad range of stakeholders to deliver a recommendation to DOE. While NEEP is not an official party to the negotiations, we attended a number of public sessions to track the proceedings and ensure that the most accurate information is being used in the process.
 - The CSA Group in Canada launched a process to develop a new test procedure and performance metric for variable speed heat pumps. NEEP was invited to be a participant in the process and attended a teleconference on September 15.
- Engaged LED Test Procedure rulemaking: NEEP participated in an effort led by the Appliance Standards Awareness Project (ASAP) to review and provide comment to the DOE regarding their new Test Procedure for LED lighting, signing onto joint comments submitted to DOE on August 10.
- Supported state-level appliance standards activities:
 - o Rhode Island: NEEP engaged deeply with National Grid staff involved in their codes and standards initiative. NEEP provided guidance on the mechanics of state administration of state standards in discussions with the state's Office of Energy Resources. Rhode Island is a leader in the region when it comes to allowing their efficiency program administrators to conduct activities related to appliance standards and the mechanisms to achieve savings from those activities.
 - Development of a state-level model package: NEEP worked with ASAP to develop a draft list of products to include in the 2016 Model Package of state-level standards. The Model package will be provided to states interested in adopting state appliance standards.



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Appliance Efficiency Standards

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NEEP Q3 2015 REPORT PAGE 26 OF 30



Advance Knowledge & Best Practices

Promote knowledge and the use of best practices that support the expansion, implementation and evaluation of policies and programs to increase and accelerate energy efficiency.

Regional Evaluation, Measurement & Verification Forum

- Hosted quarterly Steering Committee meeting: NEEP met with the Forum Steering Committee at the NARUC summer meeting in New York City to present and review the proposed Forum 2016-18 Strategic Plan that maps out key scope for the Forum's work going forward, with a focus on providing for the states: 1) EM&V reporting tools; 2) EM&V Training; 3) tracking the evolving EM&V 2.0 landscape; and 4) conducting research to support EM&V for next generation energy efficiency programs. The Strategic Plan also proposes a new, simplified subscription program funding model and project selection process. The Steering Committee generally supported the proposed scope and revenue structure, which will be further developed and reviewed in October and finalized in December.
- Facilitated a Regional Energy Efficiency Database (REED) webinar: Pat Wallace, the Forum's REED Manager, hosted a webinar entitled: How to Get the Most Out of this Regional Energy Efficiency Resource. The webinar provided insight into current REED activities, how NEEP uses REED, and how states and other users can use the resource. The webinar also explored how REED can add value and insight in the future.
- Commercial Refrigeration Loadshape Research project completed: This project produced savings loadshapes and several key parameters that can be used to update Technical Reference Manual entries regarding: ECM Motors, ECM Motor Controls, and Antisweat Door heater Controls.
- Convened a nationwide stakeholder teleconference to review and discuss comments on EPA's
 Draft Clean Power Plan 111(d) Model Rule and EM&V Guidance: This provided an overview of the
 EPA's Final CPP, the proposed Federal Plan (including the Model Rule), draft EM&V guidance, and
 reviewed key energy efficiency issues and areas for potential joint comments to the EPA.
 Stakeholders included ACEEE, NRDC, NASEO, other REEOs, NWPCC, Regulatory Assistance Projects,
 and others.
- Presented geo-targeting project and blog post: The content of NEEP's first geo-targeting project
 was presented during ACEEE's Energy Efficiency as a Resource conference in September. NEEP's blog
 post on Con Edison's geo-targeting project has been highlighted with the renewed interest geotargeting has been receiving.
- Increased NEEP's visibility by presenting at multiple conferences: NEEP staff presented on various topics at events including: pilot results from MA of Standardized EM&V Methods Reporting Forms and results from the Commercial Refrigeration Loadshape Research project to the International Energy Program Evaluation Conference, and REED and geo-targeting at ACEEE's Energy Efficiency as a Resource conference.
- Facilitated Net Savings webinar: NEEP staff and technical advisors hosted Net Savings Part 2: Trends and Case Studies in July, part two of a two-part webinar series on net savings. Topics included a



NEEP Q3 2015 REPORT PAGE 27 OF 30

presentation on market transformation and Top Down/Macroeconomic Modeling of Energy Efficiency Impacts.

Public Policy Outreach and Analysis

- Provided support for emerging states: NEEP continued to serve as an expert resource and sounding board for policymakers and efficiency proponents in New Hampshire, Pennsylvania, the District of Columbia, and New Hampshire.
 - Delaware: NEEP continued to serve as a resource for the state as it works to set a framework for its efficiency programs. Our relationships with the Department of Natural Resources and Environmental Control (DNREC) as well as members of the stakeholder Energy Efficiency Advisory Council (EEAC) facilitate our sharing of regional best practices and resources from the US DOE. At the request of a member of the EEAC, NEEP prepared a memo on best practices for shared program administration in terms of market development and resource acquisition, and how the state might consider evolving roles for the current program administrators.
 - Pennsylvania: NEEP is supporting state efficiency organizations to inform their understanding of issues surrounding commercial and industrial "opt out" initiatives, and how they undermine efficiency programs for all while resulting in less efficiency. We have participated in collaborative meetings and shared learnings from other states in an effort to bolster the case for robust C&I program offerings.
 - District of Columbia and New Hampshire: NEEP provided <u>guidance comments</u> on a scoping solicitation regarding grid modernization in the District of Columbia, and shared insights and best practices with local environmental organizations. Similar guidance was <u>provided to New Hampshire</u> in their own grid modernization scoping proceeding.
- **Engaged with established states**: NEEP monitored and stayed involved in efficiency developments across the region, including New York, Massachusetts, and Vermont.
 - New York: The state continues to be a hotbed of activity related to energy policy, as the state works on its <u>Reforming the Energy Vision</u> (REV) proceeding, NYSERDA's <u>Clean Energy Fund Information Supplement</u>, and the <u>State Energy Plan</u>. NEEP has worked closely with allies through the Clean Energy Organizations Coalition (CEOC). Recent input included:
 - NEEP Comments on NYSERDA Clean Energy Fund Information Supplement:

 NYSERDA's Clean Energy Fund Information Supplement outlines NYSERDA's
 investments in market development for the next decade. NEEP's comments directed
 NYSERDA's staff to resources that may help inform their program planning,
 implementation, and evaluation.
 - <u>NEEP Comments on Staff Benefit Cost Analysis Whitepaper</u>: The New York Public Service Commission's Staff Benefit Cost Analysis whitepaper outlined strategies for cost-effectiveness screening of energy investments moving forward, included a blanket embrace of locational based marginal pricing, and chose not to quantify non-energy benefits. NEEP delivered extensive comments detailing strategies from throughout the region for quantifying non-energy benefits, as well as choosing a



NEEP Q3 2015 REPORT PAGE 28 OF 30

screening test and discount rate that aligns most with New York's stated public policy objectives.

- NEEP Comments on New York Utility ETIPS and LED Street Lighting: New York's Utility
 Energy Efficiency Transition Implementation Plans detailed the future resource
 acquisition activities of utility program administrators. NEEP's comments suggested
 that all utilities follow the lead of Niagara Mohawk and explicitly outline LED street
 lighting conversion strategies within the plans.
- O Massachusetts: NEEP participated in a workshop on energy storage convened by the Dept. of Public Utilities together with sister agencies. See our blog on the event here. With the nearly final version of the joint 2016-18 three-year efficiency plan released, NEEP continued to monitor developments through the Energy Efficiency Advisory Committee. We are also closely following utility Grid Modernization Plans, seeking to understand the role that efficiency will play in this evolving paradigm.
- Vermont: NEEP weighed in on the Vermont Comprehensive Energy Plan with <u>preliminary</u> <u>input</u>. Our comments encouraged adopting a regionally-developed cold-climate air source heat pump standard, continued focus on multifamily housing, and permitting attribution of savings from building code enhancements.
- Collaborated with partner organizations: NEEP collaborated with numerous allies including the New York Clean Energy Organizations Coalition (CEOC), Acadia Center, Conservation Law Foundation, Natural Resources Defense Council, the Pace Energy and Climate Center, Conservation Services Group, the National Consumer Law Center, Opower, Delaware Interfaith Power and Light, Massachusetts Climate Action Network, Massachusetts Interfaith Power and Light, Chesapeake Climate Action Network, Sierra Club, and many others on policy developments in states across the region. NEEP sits on the policy committee of the New England Clean Energy Council, informing the group about a range of efficiency-related legislative and regulatory developments across the New England states. These partnerships help us to work in many states effectively to share resources and best practices, understand state dynamics, and move the ball forward on a range of efficiency policy issues.
- Data tracking and analysis: A hallmark of NEEP's work is to track regulatory and legislative proceedings as well as state savings goals and investment levels. We work closely with the EM&V Forum and the Regional Energy Efficiency Database (REED) to make relevant information available across NEEP as well as to external partners and stakeholders. One such example is NEEP's fall Policy Tracker, which identifies current or recently pending legislation within our jurisdiction and is updated on a regular basis.
- Shared information and best practices: NEEP staff played important roles at the national conference on Energy Efficiency as a Resource, hosted by ACEEE in Little Rock September 20-22. Director of Public Policy Jim O'Reilly provided the Northeast roundup of developments in the states, Senior Program Manager Natalie Treat moderated a panel on regulatory mechanisms to advance efficiency, and Policy Analyst Brian Buckley presented on street lighting tariffs. The team issued another successful edition of Highlights, and also provided input into ACEEE's 2015 state Scorecard. Staff also delivered best practice insights on LED street lighting conversion strategies at the Climate Group's Utility Roundtable on September 24. The roundtable included officials from the World Bank, the United Nations Foundation, Public Utility Commissioners, and utility program administrators.



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NEEP Q3 2015 REPORT PAGE 30 OF 30

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