



NEEP 2016 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. In 2016, we're seeing a developing conversation about customer and market engagement to create new efficiency solutions. In the midst of this shift, NEEP will seek to continue bringing stakeholders together to find solutions for the challenges we face today.

We're proud that through collaboration, NEEP and our network of sponsors, allies, foundations, other funders, and stakeholders from across the region and nation have worked to embrace efficiency as the least-cost, first-order resource to meet economic, environmental, and energy system needs. As we move forward with an eye on Next Generation Energy Efficiency, NEEP shares this report to highlight some of our 2016 third-quarter achievements.

Advancing Efficiency Innovation

Home Energy Management Systems

- **Hosted the 2016 Home Energy Management Systems (HEMS) Workshop:** On Wednesday, September 21, NEEP hosted the [2016 HEMS Workshop](#) at the EnergizeCT Center in North Haven, Conn. Forty-three stakeholders attended the meeting to discuss the HEMS landscape and diving deeply into NEEP's proposed strategies for success from the forthcoming regional market transformation strategy report. Focusing on the major energy using systems in a home, NEEP presented strategies for smart water heating, smart HVAC through smart thermostats, and smart plug load systems. After a brief discussion of how HEMS intersects with low-income households and program, the workshop moved on to focus on demand response and distributed energy resource opportunities. The event concluded with a discussion of HEMS pilot efforts focused beyond the smart thermostat, and the future role for utilities in the HEMS space. Workshop participants rated the day highly, indicating that they received a great deal of value from the event.

Residential Air Source Heat Pumps

- **Hosted the 2016 Air Source Heat Pump (ASHP) Workshop:** NEEP convened 90 regional stakeholders in Southborough, Mass. for the [July 21-22 Northeast/Mid-Atlantic ASHP Workshop](#). The regional workshop brought together a variety of stakeholders including energy efficiency program administrators, ASHP contractors, consultants, state energy policymakers, manufacturers, distributors, etc. to discuss effective implementation of regional market strategies. Day one was focused on providing market updates, discussing market barriers, and discussing whether the existing strategies needed updating. Day two focused on the issue of sizing, selecting, and installing ASHPs in cold climates. The event closed with a manufacturer round robin which provided stakeholders private discussions with ASHP manufacturers to consider opportunities to partner more effectively. The workshop was successful in providing concrete ideas for NEEP's update of the [Northeast/Mid-Atlantic Air Source Heat Pump Market Strategies Report](#).



Residential Lighting

Comprehensive Multifamily Retrofit

- **Hosted the 2016 Northeast Residential Lighting Workshop:** On Tuesday, September 20, NEEP hosted the [2016 Northeast Residential Lighting Workshop](#) at the EnergizeCT Center in North Haven, Conn. This [workshop](#) consisted of four sessions with a total of 47 attendees, starting with a revisit of the 2015 workshop major challenge: the non-ENERGY STAR LED or “ish” bulb. As great progress has been made with ENERGY STAR Lamps 2.0 specification and now low-cost, ENERGY STAR-Certified products available on the market, the consternation that took place in 2015 was calmed by 2016. The workshop discussion then moved on to look at newer, emerging areas for residential lighting efficiency, including decorative, directional lighting, and smart lighting. There was also a robust discussion of the future of residential lighting programs and what other opportunities exist for savings if and when residential lighting programs are no longer necessary. Overall, between the four sessions and 12 invited speakers, the workshop was very well received, with participants rating the event highly in evaluations.
- **Convened the 2016 Northeast Multifamily Leadership Group:** On September 29, NEEP convened 18 members of the Northeast Multifamily Leadership Group for a peer-exchange webinar. The webinar included a presentation from the NEEP High Performance Buildings Team on the preliminary findings of the National Barriers and Opportunities report on multifamily building deep energy retrofits. The group also heard a presentation on the efforts by the city of Cambridge, Mass. to increase the energy efficiency in their multifamily building stock through innovative new pilot programs that could be scaled up in other communities across the region.

Industrial Efficiency

- **Research on Strategic Energy Management:** NEEP made significant progress in researching content for an upcoming report on evaluation, measurement and verification (EM&V) of Strategic Energy Management (SEM) offerings within energy efficiency programs. SEM in the industrial sector is an emerging opportunity to achieve significant energy savings through both increased capital projects as well as operations and maintenance (O&M). NEEP conducted interviews with leading program administrators (Energy Trust of Oregon, Bonneville Power Administration, Northwest Energy Efficiency Alliance, etc.) and evaluators to identify best practices for measuring savings from SEM programs, evaluating those measured savings, and screening for cost effectiveness. The report will be completed in the fourth quarter.

Business Leader Recognition Program

- **Continued to Showcase 2016 Business Leaders’ Achievements:** The Northeast Business Leaders for Energy Efficiency Program is a unique opportunity for energy efficiency program administrators ([sponsors of NEEP](#)) to profile a customer who demonstrates exceptional leadership and best practices in energy efficiency in the operations and maintenance of their business. These leaders, recognized at the [annual NEEP Summit in June](#), provide important examples of the economic and environmental benefits of energy efficiency. In the third quarter, the Business Leaders Program celebrated another successful year of case studies. After [honoring six Business Leaders for Energy Efficiency](#) at the 2016 Summit, we continued to partner throughout the year to showcase their



achievements and success stories. This year's strong sample of regional business voices in support of energy efficiency highlights a variety of specific projects and overall commitments to doing more with less energy use. They became part of the NEEP [archive](#) of Business Leader case studies, which can be searched by state. Planning for the 2017 Business Leaders program is underway, and is expected to change in order to reflect NEEP's new business plan. The "new look" will pivot the program to serve as a highlight vehicle for best practices throughout the NEEP region. In 2017, three to five case studies will shine the spotlight on success stories from the most pressing topics in energy efficiency – strategic energy management, EM&V 2.0, home energy management systems, etc.

High Performance and Zero Energy Schools and Public Buildings

- **Hosted a High Performance Schools and Public Buildings Joint In-Person Meeting:** The meeting was held at the Wilbur & McMahon School in Rhode Island, a CHPS Verified School. Thirty-five stakeholders, including representatives from seven states, private firms, utilities, and regional and national organizations, participated in the meeting virtually and in-person. The goal of the group is to share best practices and resources to help promote energy efficiency, operational savings, and operations and maintenance in the region's building stock. This smaller, interactive forum typically lends itself well to productive conversations allowing attendees to ask questions of speakers and other attendees to shape the conversation for the day. Other agenda items included state updates, DOE's Better Buildings Challenge for Schools, DOE's Zero Energy Accelerator, benchmarking and ENERGY STAR, and operations and maintenance. Attendees engaged in breakout group discussions regarding workforce development and closing the gap between the way buildings are designed and the way they are operated. This dialogue helps NEEP gain a better understanding of the challenges faced by stakeholders and aids with the development of more useful resources. The day concluded with a tour of the historically renovated, CHPS Verified School.

DesignLights Consortium and Advanced Lighting Controls

- **The DesignLights Consortium Engaged Industry in Important Program Developments:** In July, the DesignLights Consortium (DLC) released specification drafts and revisions for several categories of solid state lighting (SSL) products for stakeholder input under [Technical Requirements V4.1](#). This included Very High Output Outdoor Lighting, U-Bend Replacement Lamps, T5 Linear Lamps, Hazardous Environment Lighting, and CFLEDs. These new specifications are expected to be published in the fourth quarter. The DLC also released three policies for stakeholder input, including Private Labeling/Multiple Listing policy, additional clarification on Rated Data, and adoption of the ANSI C78-377-2015 color standard. Additionally, the DLC listed four new systems on its [Networked Lighting Controls Qualified Products List](#) (NLC QPL), bringing the total number of qualified systems to five. With an additional nine systems under review, the NLC QPL is expected to see exponential growth in the coming months. The NLC QPL equips lighting designers, specifiers, contractors, building owners, and utility energy efficiency programs with a valuable information resource to understand and evaluate Networked Lighting Control systems in this rapidly evolving sector. For lighting controls manufacturers and their customers, it provides access to efficiency incentives and greater product visibility in markets across North America.



Building Efficiency Markets

Home and Building Energy Rating, Labeling and Disclosure

- **Provided Technical Guidance on Rhode Island Building Energy Labeling Efforts:** NEEP continued to play a major role in propelling Rhode Island's efforts to implement building energy rating across its entire building stock:
 - Staff collaborated with other members of the state's Residential Building Rating Working Group in order to clear the remaining barriers to a statewide labeling program. NEEP provided updates on our Home Energy Labeling Information Exchange (HELIX) project and other synergistic efforts, and provided technical assistance to the state Office of Energy Resources to resolve final outstanding issues as the team prepares to incorporate the U.S. Department of Energy's Home Energy Score (U.S. DOE HES) and a uniform Rhode Island label into National Grid's home performance program in 2017.
 - NEEP also presented to the state's Commercial Building Labeling Working Group on the efforts underway by a group convened by the New York State Energy Research and Development Authority (NYSERDA) of national experts working on a building label that can be created using existing rating systems in the office and multifamily building stock. In addition, NEEP provided input on the potential avenues to expand energy labeling in Rhode Island's commercial buildings through existing commercial energy surveys offered through National Grid.

Contractor, Realtor and Design Community Tools and Training

- **Led Groundbreaking Home Energy Labeling Connection Efforts in the Northeast:** After kicking off our Home Energy Labeling Information Exchange ([HELIX](#)) project last quarter, NEEP continued to lead this three-year effort to create a highly accessible database enabling automatic transfer of information from U.S. DOE HES and other sources from seven Northeast states into local Multiple Listing Services (MLS). This quarter, members of the HELIX team began deep research into the technical scope and data protocol specifics of HELIX as well as issues of database governance, ownership, and operation in order to provide the team with their recommendations later this year. In addition, NEEP planned for the [inaugural HELIX Summit](#), which will be held in Boston, Mass. in November. Stakeholders from across our region continue to be highly interested in HELIX, with several of our partner states now factoring the database's development into their efforts to promote building energy rating.

Updating Baselines

Progressive Model Building Energy Codes

- **Supported Efforts to Increase Energy Code Efficiency in Maine, Connecticut, and Rhode Island:** The Northeast - Mid-Atlantic region continues to lead the country in the adoption of progressive building energy codes, with four of NEEP's states already having adopted the 2015 International Energy Conservation Code (IECC), the nation's newest, most efficient model energy code. NEEP guided three more states toward adoption of more efficient energy codes:



- NEEP continued to support Connecticut's energy code update process. Staff provided comments supporting the state's proposed 2012 IECC adoption (which has since been completed) while providing guidance for the subsequent adoption of the 2015 IECC (which the state's Code Adoption Subcommittee plans to pursue soon).
- NEEP also continued to serve on Maine's Energy Technical Advisory Group by reviewing and providing edits to a set of building reports which will be used to support 2015 IECC adoption later this year and possibly in energy training for code officials.
- Finally, NEEP continued to support Rhode Island's efforts to adopt the 2015 IECC, which is provided chiefly as part of our work with standing state working groups.

State and Federal Appliance Standards

- **Engaged Stakeholders to Promote Stat-Level Appliance Standards:** On August 4, NEEP launched an effort to regularly convene regional stakeholders interested in learning about and promoting state-level appliance standards. NEEP gathered stakeholders from Rhode Island, Connecticut, New York, Massachusetts, and Vermont for an initial discussion about the practical logistics of getting standards adopted as well as the strategic benefit of bringing multiple states together to leverage knowledge and learning across state lines. NEEP reconvened the group on September 15 to present a more comprehensive suite of resources available to state stakeholders. The goal is for multiple states to propose new state appliance standards for products not currently covered by federal standards.

Tracking Efficiency Policies & Results

Regional Evaluation, Measurement and Verification Forum

- **Advanced Knowledge and Understanding of "Next Generation" EM&V:** The Forum hosted an [EM&V 2.0 Workshop](#) in North Haven, Conn. on September 22. This event brought together over 60 experts and stakeholders to learn and discuss technical details, opportunities, and challenges of designing a pilot to test the use of advanced analytical software to reliably estimate energy efficiency impacts at the whole building level and compare results and costs with use of traditional tools or evaluation approaches. Attendees contributed feedback on the Lawrence Berkeley National Laboratory's (LBNL) proposed pilot design and on "acceptance criteria" – uncertainty and confidence targets proposed by LBNL on which to judge results. Additionally, EnergySavvy staff presented on two residential program case studies, and an evaluator from Energy & Resource Solutions presented statistical considerations for pilot and program design. The workshop, delivered in coordination with LBNL, focused on both residential and commercial pilot design and provided an opportunity for attendees to discuss what questions a pilot should answer and what acceptance criteria is acceptable for EM&V 2.0. Attendees to the workshop also learned about an upcoming project funded by a U.S. DOE State Energy Program grant, hosted by the Connecticut Department of Energy and Environmental Protection (CT DEEP) in partnership with NEEP and sponsoring states to oversee commercial and residential pilots and provide outreach and guidance on the use of advanced analytical tools for EM&V purposes based on lessons learned from the pilots.



Regional Energy Efficiency Database

- **Conducted a Survey on Regional Energy Efficiency Database Users:** The purpose of this survey was to help NEEP better understand the scope of users of the Regional Energy Efficiency Database (REED), how the database is used, and to solicit feedback on how to improve the database and supporting information. The information collected will be used to guide REED's development going forward.

Public Policy Trends Analyses, Reports and Education

- **Built and Shared Expertise on the Integration of Energy Efficiency with Demand Side Resources:** From topics of demand response, to energy storage, to renewable energy and electric vehicles, this has been an increasing focus of our work and outreach in 2016. In the report below, we detail the particular thought leadership that NEEP – particularly Senior Associate Brian Buckley – has exhibited in this regard. Staff has continued to position energy efficiency as a Next Generation resource, vital in pairing strategic electrification with onsite renewables and geotargeting, grid modernization, and customer behavior and data-based programs — all with a goal of reducing the region's reliance on carbon inducing fuels. We continue to explore salient issues such as new rate design models and other regulatory structures that can help align public policy goals with utility drivers and customer benefits. And we are monitoring important discussions such as how regional energy markets can support state policy goals relative to energy and climate, per [NEPOOL's IMAAP process](#).

NEEP Events

- **Hosted Four Topical Workshops:** In the third quarter, NEEP hosted four workshops on [Air Source Heat Pumps](#), [Home Energy Management Systems](#), [Residential Lighting](#), and [EM&V 2.0](#). In addition to bringing together stakeholders to discuss critical and emerging topics, these events provided an opportunity to review our event sponsorship model in order to support costs and provide the best value for our stakeholders. Workshop sponsors obtained several benefits, including complimentary invitations to the event and visibility before and during the workshop. At the three September workshops, we offered discounts for organizations that sponsored more than one workshop. This new model has been successful and will be a good learning experience to define our event sponsorship offerings for 2017 events. NEEP is also aiming to organize “greener” events and offered support to arrange carpooling among workshop attendees. With the support of NEEP's internal Sustainability Committee, we were also able to reduce waste by contracting a zero landfill caterer for the three September workshops.



Advancing Efficiency Innovation

Drive efficiency product, service, and program innovation to increase energy savings on a regional scale through multi-state research, analysis, and market transformation strategies; tools and resources such as qualified product lists, technical guidelines, and case studies; and best practice peer exchange and industry engagement.

Home Energy Management Systems

- **Progress Toward Completion of Home Energy Management Systems (HEMS) Market Transformation Report:** [The report](#), which was published early in the fourth quarter, was developed by NEEP staff with advice and input collected by a Leadership Advisory Committee (LAC) composed of NEEP Sponsors and HEMS experts. The LAC was presented with interim findings in August and a draft was circulated amongst stakeholders in August and finalized through September, with final edits and formatting taking place in early October.
- **Conducted Research for NYSERDA Smart Thermostat Market Characterization:** In conjunction with the NEEP's HEMS research, NEEP was commissioned by NYSERDA to develop a Smart Thermostat Market Characterization for New York. NEEP managed a sub-contractor to deploy a survey of New York State residents and perform analysis through smart thermostat stakeholder interviews. NEEP also developed and deployed a survey for New York contractors to collect feedback on their opinions about smart thermostats. The draft report was delivered to NYSERDA in early September and it is expected to be finalized in the fourth quarter.
- **Hosted Two HEMS Working Group Meetings:** NEEP, along with the Home Performance Coalition, hosted two meetings of the HEMS Working Group. The July meeting, with 38 participants, included presentations on two topics – first from a HEMS vendor on their products, and second from a recent report on smart home technologies' potential for energy savings. In September, 33 people participated in a second meeting which featured a deeper dive into a recent study looking at the potential for smart lighting and HEMS hubs to save energy in homes.
- **Provided Contractor Training on HEMS:** NEEP was invited to speak to the Residential Energy Performance Association of New Hampshire, a group of home performance contractors, to provide a three-hour [training](#) on smart homes. On September 13, NEEP staff presented to approximately 20 New Hampshire contractors, educators, and program administrators to discuss the opportunities for the home performance sector to leverage and promote home energy management systems. The training was received positively, with attendees rating it as a 4.3 out of 5.



Residential Air Source Heat Pumps

- **Development of Updated Regional Air Source Heat Pump (ASHP) Strategy Report:** Following the [July 21-22 Northeast/Mid-Atlantic ASHP Workshop](#), NEEP began drafting updates to the [2013 Northeast/Mid-Atlantic Market Strategies Report](#), which will be complete in the fourth quarter.
- **Development of Sizing/Selection/Installation Guidance Document for Contractor Community:** Accurately sizing, selecting, and installing ASHPs in cold climates has been challenging for the contractor community as technology has evolved faster than industry standards have been able to keep up with. NEEP successfully engaged stakeholders through a number of avenues to inform the development of these guidance resources. Ultimately, the resources being developed will directly aid contractors in more successfully getting maximum operation and performance out of the technology and providing that comfort and efficiency to their customers.
- **Led Organization of Upcoming Regional Event:** NEEP will participate in the *Market Transformation: Air Source Heat Pump Adoption in the Northeast & Mid-Atlantic Region Panel* at the upcoming [Home Performance Coalition New England Regional Conference](#) on October 19. The panel will provide NEEP an opportunity to communicate the key regional strategies for which we are coordinating implementation. NEEP brought together representatives from four organizations (U.S. DOE, Mitsubishi, Massachusetts Clean Energy Center, and Efficiency Maine) to discuss the market strategies they deploy to overcome ASHP market barriers.
- **Provided Technical Assistance to Regional Program Administrators:** NEEP provided input on ASHP strategies to program planners in Massachusetts, Rhode Island, Connecticut, and New York.
- **Cold-Climate ASHP Specifications Grew:** The [specification and the associated list](#) now includes 180 products. Product manufacturers must submit complete applications to NEEP to be listed. The specification continues to receive interest from stakeholders throughout the region including from the Massachusetts Clean Energy Center, Rhode Island efficiency programs, Efficiency Vermont, and NYSERDA.

Residential Lighting

- **Published a Residential Lighting Brief:** In July, NEEP published the [State of the Market: A Residential Lighting Brief](#). This short report provides updates on the state of regional market transformation, including information on new trends, socket saturation levels, incentives, and policies. NEEP found that the Northeast and Mid-Atlantic is doing better than expected toward reaching a goal of 80-90% high quality efficient lighting, and is on track to reach that goal one to two years earlier than what we reported in 2014. This projection will achieve market transformation by 2020 or 2021, though there is still opportunity for the region to advance even further.
- **Hosted a Public Webinar on the Residential Lighting Brief:** In conjunction with the release of the brief, NEEP hosted a public webinar on August 9. Forty-nine stakeholders attended the webinar and rated it a 4.3 out of 5 for overall quality. The recording and slides from the public webinar are [available online](#).



- **Hosted a Regional Residential Lighting Working Group Meeting:** As NEEP finalized the residential lighting brief, we also hosted the third-quarter residential lighting working group meeting. This meeting was an opportunity for regional stakeholders to ask questions after the public webinar on the brief, as well as to come together to identify major issues to be address in the September workshop. In addition to the working group meeting, NEEP hosted a casual in-person meeting over lunch at the Residential Lighting Workshop, where eight program administrators from five states came together to talk about their program needs and challenges.
- **Prepared for Presentation at the ENERGY STAR Partner Meeting:** As 2015 and 2016 were significant years in the U.S. Environmental Protection Agency's (U.S. EPA) ENERGY STAR lighting program and the development and adoption of the Lamps 2.0 specification, NEEP was invited to speak on this issue at the ENERGY STAR Partner Meeting. While the presentation will not take place until the fourth quarter, NEEP worked in the third quarter with EPA staff to prepare remarks.

Comprehensive Multifamily Retrofit

- **Completed Draft Report on Accelerating Deep Energy Retrofits in the Multifamily Housing Stock:** NEEP led a project team of five regional energy efficiency organizations (REEOs) to engage multifamily retrofit stakeholders in our respective regions to assemble exemplary case studies and policy and program opportunities into a draft report. The report will be aimed at policymakers, efficiency program administrators, and other stakeholders from the multifamily energy efficiency community. It seeks to provide examples of policies and programs that are achieving deep energy savings and to identify the biggest opportunities to achieve scale. It is due for final publication in the fourth quarter of 2016.
- **Supported Communities in Efforts to Pilot Innovative Efficiency Programs:** NEEP engaged with communities from throughout the region at the Georgetown University Energy Prize Conference on September 20 in Cambridge, Mass. NEEP sought feedback from the communities that are competing for a five million dollar prize to scale innovative energy efficiency programs and disseminated resources aimed at accelerating the energy efficiency of multifamily housing.
- **Updated the Multifamily Retrofit Online Resource Center:** NEEP provided timely updates to the [online resource center](#) of reports, white papers, and other public facing resources. We also worked to disseminate the resources on the site to multiple working groups through webinar presentations. The resource center aims to provide policymakers, utility program administrators, and program implementers with actionable, up-to-date data and information to assist them in their efforts to advance efficiency in multifamily buildings.
- **Engaged Low-Income Multifamily Housing Community in Efficiency Efforts:** NEEP worked with stakeholders as part of the Network for Energy Water and Health in Affordable Buildings (NEWHAB), holding a working group aiming to streamline energy data access in affordable multifamily buildings and participating in webinars focused on the efforts to incorporate health characteristics into energy auditing standards across the country.

Industrial Efficiency

- **Participated in the Northeast CEI Discussion Group Meeting:** This event focused on issues related to implementation of Strategic Energy Management (SEM) in energy efficiency programs. NEEP



presented a new resource being developed that provides more clarity around the definition and basic elements of SEM. The group offers information exchange between Commercial and Industrial (C&I) program administrators in the region.

- **Development of an SEM “Definition” Document:** NEEP solicited feedback from stakeholders on a document being created for program administrators to provide more clarity on the definition of SEM. In addition to the version targeted at program administrators, NEEP will be developing a second version for industrial customers. Both documents will be finalized in the fourth quarter.
- **Planning Began for Regional SEM Workshop:** NEEP circulated a “save the date” to regional stakeholders for a November 15 [workshop](#) to be held at Schneider Electric in Andover, Mass. The workshop will address the critical barriers regional efficiency programs are facing in assessing the potential incorporation of SEM into their program offerings.
- **Participated in CEE’s SEM Committee:** The September 15 discussion involved presentation and discussion about energy management information systems and their value in successful implementation of SEM.
- **Attended the Massachusetts Advanced Manufacturing Conference:** At the [September 27 event](#), NEEP gathered information on energy management practices in the local manufacturing sector. It is clear that the concept is still emerging as several improvements have not made significant inroads into how manufacturers manage energy use.

Business Leader Recognition Program

- **Readied for Another Season of the Business Leaders Program:** NEEP has begun research into reimagining the 2017 Business Leaders Recognition Program as a case study vehicle in the Advanced Efficiency Leadership Network planned for formation in 2017. NEEP will look into comparable recognition programs to determine the best way to solicit, evaluate, and rank winners.

High Performance and Zero Energy Schools and Public Buildings

- **Educated and Engaged with Building Operators about Current Best Practices for High Performance Building Operation and Maintenance:** NEEP arranged the energy and sustainability track for the annual Massachusetts Facilities Administrators Association (MFAA) Conference. The track consisted of four presentations on topics including zero energy, code compliance and Americans with Disabilities Act (ADA) requirements, energy savings strategies, and NEEP’s Operations and Maintenance Guide. NEEP’s presentation began with an overview of the original guide, transitioned to work being done to update the guide, and concluded with an in-depth discussion about items that should be included in the updated guide. This session was significant for two reasons, both of which will lead to better outcomes for high performance schools and public buildings. Primarily, the session provided attendees with facts to make the business case for an effective operations and maintenance program. Secondly, the discussion produced new ideas for the updated guide from those that know the trade best.
- **Facilitated R.I. and N.H. High Performance Schools Working Groups:** NEEP facilitated two High Performance Schools Working Groups in New Hampshire and in Rhode Island. Both groups have similar objectives – to promote operational savings through energy efficiency improvements while



paving the way to zero energy schools. Each group meets monthly to plot a clear path forward that encourages the development of high performance schools. NEEP is co-hosting, alongside the states' Departments of Education, two High Performance Schools Summits in both [N.H.](#) and [R.I.](#), planning for which was the focus of this quarter's working group meetings. The R.I. Summit, taking place in the wake of the moratorium being lifted and additional funding opportunities being made available, aims to move the needle even further in the state in regard to the development of high performance schools. The objective of the N.H. Summit is to increase awareness across the state of the benefits of high performance schools and the Collaborative for High Performance Schools (CHPS) as a pathway.

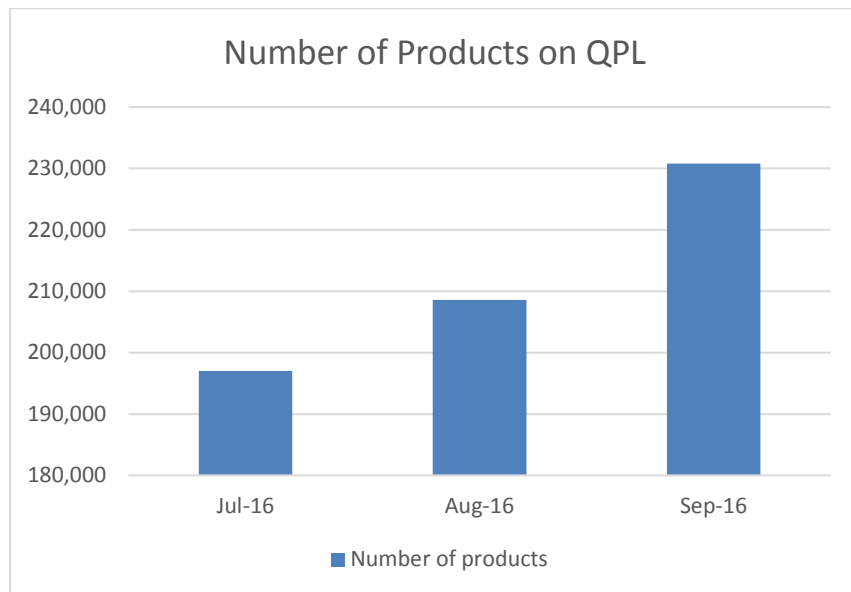
- **Developed a Case Study of an Exemplary High Performance School in the Region:** Through case studies, NEEP highlights recently renovated or constructed CHPS schools to show their viability and to promote successful outcomes. NEEP published a new case study on the [Wilbur & McMahon School](#) in Little Compton, R.I. This is a unique case study as the school was a historical renovation project and it was an immediate health and safety project approved by the Rhode Island Department of Education during their moratorium.
- **Engaged in Discussions with Newark, N.J. About Their LED Streetlight Retrofit Plans:** The Newark Office of Sustainability is leading the City's efforts to transform their streetlights to LEDs. Representatives from the City's Sustainability Office contacted NEEP regarding our LED [Street Lighting Assessment](#). NEEP staff provided technical guidance and additional resources for Newark to utilize during the process of engaging their utilities and ultimately changing their streetlights to the more efficient technology.
- **Engaged Stakeholders for Their Perspectives on Guidance Needed to Operate Facilities at the Highest Level:** Throughout the quarter, NEEP engaged the sub-committee tasked with updating the [Regional Operations and Maintenance Guide](#). This sub-committee provides valuable perspectives on what the guide should include, allowing NEEP to research the most relevant and updated strategies needed for proper operations and maintenance of schools and public buildings. The updated guide is slated for release in the fourth quarter.
- **NEEP's Thought Leadership Sought to Improve Energy Efficiency in the Built Environment:** Senior Program Manager for High Performance Buildings Carolyn Sarno Goldthwaite and High Performance Buildings Associate John Balfe participated in an interview for the magazine *Building Operating Management* that appeared in the [September issue](#). In addition, Ms. Sarno Goldthwaite was interviewed for an article that appeared in September's *Environmental Building News* [Mouth, Meet Money: Case Studies of Outcome-Based Design](#). These media inquiries demonstrate NEEP's recognized thought leadership in the energy efficiency space and allow NEEP's message to reach a broader audience.
- **Massachusetts' Efficiency Success Featured at Alliance to Save Energy Briefing:** NEEP staff addressed an [Alliance to Save Energy](#) (ASE) briefing for United States Congressional staffers in August. The event took place in Boston, Mass. and was titled *The Bay State: Creating Resilient Communities through Energy Efficiency*. NEEP spoke on how we have assisted Massachusetts in leveraging energy efficiency to improve community resiliency. ASE President Kateri Callahan stated, "the insights and relationships stemming from this event will provide a solid foundation towards optimization of energy efficiency technologies and adoption of policies and regulations that can help other communities and states achieve the success that Massachusetts has witnessed."



- **Maintained and Updated the Online Buildings Resource Center:** NEEP maintained and updated our [new Bulletin Board](#), [High Performance Schools state pages](#), [Zero Energy Buildings page](#), and [blog](#) to feature the latest news, events, and resources on high performance schools and public buildings. These resources provide easy access to information by interested stakeholders and assist with NEEP’s dissemination strategy for a variety of resources.
- **Continued to Advance Zero Energy Buildings and Homes in Rhode Island:** NEEP continued to be an active member of the R.I. Zero Energy Council, this quarter reviewing and providing comments on the draft zero energy roadmap which will be released in the fall.
- **Served in Leadership Roles on National Boards and Working Groups to Advance Energy Efficiency:** Ms. Sarno Goldthwaite continues to serve in leadership roles in two national groups as:
 - Chair of the [Collaborative for High Performance Schools’](#) Board of Directors; and
 - Co-Chair of the [SEE Action](#) Existing Commercial Buildings Working Group, a joint initiative of U.S. DOE and U.S. EPA.

DesignLights Consortium and Advanced Lighting Controls

- **Vetted Products for Inclusion in Incentive Programs and Product Performance Data to Inform Program Design Strategies:** The DesignLights Consortium (DLC) served its members by maintaining the DLC Qualified Products List (QPL) via a publicly available, searchable, and comprehensive web-based listing of qualifying solid state lighting (SSL) products. The QPL and its technical requirements are the backbone of the DLC SSL project that members rely on to promote high efficiency lighting products and achieve energy efficiency program savings goals.
- **QPL Growth.** During the third quarter, the DLC QPL grew by 23.7%, leaving the product count at 230,828 by the end of September.





- **Revised Technical Requirements – Raising the Bar for Quality to Identify Today’s Best Performing Products:**
 - **SSL Specification and Policy Development:** The DLC released three policies for stakeholder input. These policies cover revisions to the existing Private Labeling/Multiple Listing policy, additional clarification on Rated Data, and adoption of the ANSI C78-377-2015 color standard. Additionally, DLC provided the opportunity for stakeholders to provide proposals for luminaires operating on Direct Current (DC) power grids and Power over Ethernet (PoE) systems, as well as a policy for White Color Tuning products.
 - **Released Technical Requirements Table V4.1 for Comment:** The DLC released for comment several new and revised technical requirements for categories of SSL products that are proposed to be added to the Technical Requirements as Table V4.1. The proposals include: Very High-Output Outdoor Lighting, U-bend Replacement Lamps, Refrigerator Case Lighting Definition Revision, Hazardous Environment Lighting Definition and Requirements, and CLFEDs.
 - **Released Second Draft Requirements for 4-Pin-Base LED Replacement Lamps:** The DLC issued a first draft of proposed technical requirements for 4-pin-base LED Replacement Lamps (that is, LED replacements for 4-pin-base CFLs) in June. Comments received from that first draft have resulted in a number of changes on which DLC has requested additional stakeholder input.
- **QPL Integrity – Randomized Product Performance Verification Testing and Logo Use Protection to Defend Against Gaming and Fraud:**
 - **Developed Surveillance Testing Program:** In September, the DLC hired a new program specialist, Brady Nemeth, to finalize and prepare the launch of the surveillance testing program. The surveillance testing program represents an initial effort by DLC to ensure the validity of data submitted to the DLC SSL QPL pre- and post-qualification. In order to maximize the use of limited resources, surveillance will focus on identifying products with higher than average risk of non-compliance. A finalized policy for the launch (and accompanying FAQ) as well as the RFPs to contract with testing laboratories are planned to be complete by the end of 2016. The initial soft launch of the program will take place in the first quarter of 2017 and will include luminaires only. Separately, changes may be made to the surveillance testing of lamps and retrofit kits from the originally drafted proposal that went out for industry comment.
 - **Strengthened Logo Compliance Program:** Revised [logo guidelines](#) have been posted on the DLC website and will allow for use of the DLC logo on general marketing materials that do not reference specific products. This will allow manufacturers to display their participation in the program and decrease the number of logo violations due to general use of the logo.
- **DLC Networked Lighting Controls Qualified Products List Grows to Five:** The DLC continued to review and add systems to its new [Qualified Products List for Networked Lighting Control \(NLC\) Systems](#). As of the end of September, five systems were qualified from manufacturers Acuity Brands, Eaton, Enlighted, Nedap, and RAB Lighting. [The NLC Qualified Products List](#) equips



lighting designers, specifiers, contractors, building owners, and utility energy efficiency programs with a valuable information resource to understand and evaluate Networked Lighting Control systems in this rapidly evolving sector. For lighting control manufacturers and their customers, it provides access to efficiency incentives and greater product visibility in markets across North America.

- **Fourth Advanced Lighting Control Demonstration Project Installed:** In 2015, the DLC began work to select 10 Advanced Lighting Control (ALC) technologies and sites for demonstrations in partnership with U.S. DOE. These demonstration projects will be used as deployment tools for DLC member utilities and provide valuable experience and content to inform the Commercial ALC (CALC) project training programs and other activities. The fourth installation was completed in the third quarter and site selection is underway on projects 5-10.
- **Awarded Funding for New Advanced Control Data Analysis Project:** In September, DLC was awarded \$90,000 CAD from Natural Resources Canada to fund a new research project, adding to the funding commitments from Northwest Energy Efficiency Alliance and Hydro-Québec. This project will collect data and build a large database of advanced lighting control savings results. The goal of the project is to use the database to develop ALC savings and cost assumptions to support members in developing program offerings. Secondary goals include refining savings assumptions of the Advanced Lighting Control Systems (ALCS) Energy Estimation Tool under development (led by the Pacific Gas and Electric Company) and to analyze the savings of luminaire level controls. DLC continues to seek additional co-funders for this project.
- **Draft Installer Training Curriculum Complete:** Increasing awareness of new types of Advanced Lighting Controls, especially those that reduce complexity and cost of installation, is an important strategy to address adoption barriers. In September, DLC completed the draft training curriculum for contractors and held a webinar to review the training with manufacturers, members, and other stakeholders. DLC expects to finalize the curriculum and begin piloting the training in late 2016/early 2017.
- **Held Third Industry Advisory Committee (IAC) Meeting:** The IAC includes a cross-section of the six largest manufacturers on the QPL, three small manufacturers, two lighting designers, and two controls manufacturers. The Committee met to discuss ensuring quality in the SSL QPL, strategic direction with specifications, and the IAC Profile in regards to industry representatives. The next meeting will be held in-person on December 2.
- **DLC Website Updated to Feature an Online Forum, Accessible Information Resource, Added Security, and API Access to Product Data:**
 - **Increased Web Traffic:** During the third quarter, the DLC website received 658,558 page views by 51,167 users, 24% of which were new users. About 67% of the total sessions on the website came from the U.S., while roughly 17% came from China, and approximately 10% from Canada. The rest of the visits are made up 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.
 - **Development of New Website and Database Underway:** The DLC and its web developer, ten24, have been working to develop and design the new DLC website, its



database, and accompanying application management system. The new website is being built on an e-commerce platform and is expected to be completed by January of 2017.

- **Engagement of and Representation at Industry Events and Conferences:** In the third quarter, the DLC was represented at six conferences and workshops, providing presentations on the DLC at many and broadening the reach of and interest in the program.
- **Held Regular Member Meetings:** There was no meeting held in July due to the DLC Stakeholder Meeting being held the first week of August which included an in-person member meeting. Regular member meetings resumed in August. During these meetings, DLC membership was informed about ongoing developments and feedback was collected on timelines, use of specs, the Premium tier, CALC, and the Annual Stakeholder Meeting.
- **New Social Media Followers:** [@DesignLightsSSL](#) 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.
- **Held Two Technical Committee Meetings:** The primary focus of these meetings was the review of comments received from the CFLED draft specification proposal and specification development for technical requirements table V4.1. The September meeting also included a discussion on rated data clarification, updated ANSI CCT standard, and safety certification for private label applications.
- **2016 DLC Stakeholder Meeting Attracts 250+ Attendees:** The 2016 DLC Stakeholder Meeting was the biggest one yet with the number of sponsors and attendees including industry stakeholders and utility members both hitting record highs. Evaluations show that the agenda was well received and content was perceived to be elevated and improved from previous years.
- **CALC Summit Planning Underway:** The CALC Summit has been postponed to the first quarter of 2017 and the location is yet to be determined.



Building Efficiency Markets

Develop regional market capacities to value and deliver energy efficiency through outreach, guidance, and tools that provide common specifications, training, and frameworks to scale-up efficiency across states.

Home and Building Energy Rating, Labeling and Disclosure

- Supported Innovative Building Energy Projects in New York:** NEEP continued to support NYSERDA-led residential and building rating pilot programs. After being cited several times in the [Tompkins County Home Energy Rating Disclosure pilot](#)'s final [program implementation plan](#) last quarter, NEEP provided representatives from the effort with technical guidance on progressing their plan. NEEP also helped to disseminate an RFP on behalf of the Town of Ithaca regarding a new project investigating policy options for advancing green buildings therein.
- Supported U.S. DOE's National Collaboration Efforts Regarding Home Energy Information:** NEEP continued to participate in U.S. DOE's [Home Energy Information Accelerator](#), representing the Northeast region as one of six hotbeds across the country which are actively expanding the use of this information in real estate transactions. Consequently, NEEP exchanged best practices with national leaders on regular teleconferences and began assembling information quantifying the current level of penetration of home energy information in real estate listings in different multiple listing services (MLS) across our region. In addition, NEEP participated in an initiative with Lawrence Berkeley National Laboratory (LBNL) to "auto pop" solar PV information on existing homes into the MLS.
- Continued Holistic Residential Market Transformation Discussions with Connecticut:** After beginning to discuss strategies for aligning the state's [nation-leading work in deploying DOE's Home Energy Score](#) through its utility programs with regional and national home energy labeling efforts such as HELIX last quarter, NEEP and the Connecticut Department of Energy and Environmental Protection (CT DEEP) continued to discuss methods for achieving greater engagement of the real estate community. NEEP was asked to present alongside CT DEEP as part of a panel on this topic at an event in October.
- Supported Implementation and Improvement of U.S. DOE's Asset Rating Tools:** NEEP continued to act as conduit between stakeholders throughout the region and U.S. DOE in order to ensure its Home Energy Score and Commercial Asset Score tools remain appropriate for use in our quickly-shifting building energy environment. For example, NEEP has helped provide feedback to U.S. DOE on the need to improve modeling assumptions for cold climate heat pumps and streamline the rescoring of homes post-retrofit in order to help justify utility investment in home energy labeling programs.



- **Provided Research and Analysis to the Cities of Portland and South Portland on Building Energy Benchmarking Ordinances:** At the request of the City government, NEEP researched and provided analysis on the data collected by other cities across the country who have enacted benchmarking and transparency ordinances in order to inform their stakeholders on the potential effects of their proposed policy. NEEP also provided best practices in streamlining energy data access to City staff to ensure building owners are able to access their utility data for the purposes of benchmarking.
- **Provided Technical Guidance to Development of New Hampshire Home Energy Labeling Program:** NEEP continued to participate in the Recognizing Efficiency Value through Energy Asset Labeling (REVEAL) project, an effort which launched at the end of 2015 to promote the advancement of alignment of energy rating programs in New Hampshire and Vermont. This quarter, NEEP assisted the REVEAL team to compile stakeholder contributions into a roadmap for scaling up the use of U.S. DOE's Home Energy Score statewide and introducing a uniform New Hampshire label.
- **Maintained Regional and National Network of Energy Rating Allies:** NEEP included updated information on regional building energy rating activities through our Building Energy Codes and Public Buildings Leadership Groups. Staff 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 National Association of State Energy Officials (NASEO).
- **Provided Timely Updates to the Online Resource Center:** NEEP updated the [Building Energy Rating page](#) to feature the latest publications, events, and other resources relevant to stakeholders working in energy rating and labeling. The latest developments in benchmarking policies from the region were also tracked and included in an update to the [Building Energy Rating & Disclosure: Lesson from the Field handout](#) which tracks the latest benchmarking and transparency policies from around the region.
- **Worked to Mobilize Building Energy Benchmarking Data for Outcomes.** NEEP participates in the [SEE Action Network Existing Commercial Buildings Working Group](#) who is building on its [2020 Leadership Agenda for Existing Commercial and Multifamily Buildings](#). The group plans to assess how policymakers are using benchmarking datasets to create clean energy outcomes, and identify how these datasets may be applied in the future to drive greater outcomes. The report is due to be finalized early next year.

Contractor, Realtor and Design Community Tools and Training

- **Engaged the Regional Real Estate Community and Developed Resources for HELIX Project:** NEEP and the project team provided outreach and briefings to real estate professionals and MLS operators across the region. This effort aimed to gather feedback from communities to inform the HELIX project and ensure the resulting system provides value to real estate professionals through their processes and is seamlessly integrated into MLS databases across the Northeast. The project team also began development of a heat map showing the energy efficiency certifications and ratings across the project states to communicate the market penetration of high performance housing and value proposition to real estate professionals.
- **Presented NEEP's Thought Leadership to New Audiences:** HELIX and the broader topic of home energy rating and efficiency valuation was presented at three events in September. First, NASEO hosted a workshop on HELIX before their annual meeting in Providence, R.I. Second, HELIX was



presented in the context of appraisals of green homes at the “What’s Green Worth” in Portland, Me. Finally, HELIX was briefly discussed by a presenter at the New Hampshire Association of Realtor’s annual convention in Manchester, N.H.

- **Disseminated Educational Resources for Real Estate Professionals:** NEEP disseminated two NEEP resources from the [Green Real Estate Resources page](#): the [Checklist for Real Estate Professionals on Home Energy Efficiency Attributes](#) and the [Guide for Creating Low Cost Energy Efficient Apartments and Homes](#) aimed at increasing the energy efficiency in residential buildings through increased visibility. These resources were disseminated to stakeholders through inclusion in stakeholder webinars as well as presentation to representatives from Ithaca, N.Y., where 70 percent of the housing is rental. These resources were also added to the [DOE’s Home Energy Score Resources page](#) and the [Connecticut Department of Energy and Environmental Protection’s Energy Efficiency page](#), which should drive continued usage of these industry-valued resources.



Updating Baselines

Increase energy savings by aligning efficiency programs with advanced building energy code initiatives and appliance standards to lock-in the positive market impacts of successful efficiency programs.

Progressive Model Building Energy Codes

- **Led the Pennsylvania Energy Code Collaborative:** NEEP continued to facilitate the [Pennsylvania Energy Code Collaborative](#), which we have led since 2015. [State Energy Code Collaboratives](#) are effective vehicles for convening diverse stakeholders to promote energy code adoption and compliance through transparency, learning, and dialogue. This quarter, NEEP convened one in-person meeting in Philadelphia, during which we guided Collaborative members through a discussion of each aspect identified as a 2016 priority in our [roadmap to full compliance](#). In addition, NEEP completed an aesthetic upgrade to our [Energy Code Compliance 101](#) document and designed a survey to be used to help quantify the demand for the services implementing an Energy Code Ambassador Program would provide.
- **Provided Support to Energy Code Collaboratives in Delaware and New Hampshire:** NEEP has played an active role in Delaware and New Hampshire’s Energy Code Collaboratives since their inceptions in 2011 and 2012, respectively.
 - NEEP continued to provide technical support to the Delaware Energy Code Coalition. This quarter, NEEP attended the group’s July meeting in Dover and provided technical guidance pertaining to the 2015 IECC and the ERI/HERS rating path. NEEP provided further assistance to the state Department of Natural Resources and Environmental Control (DNREC) regarding incorporating HERS rating code training and methods for assessing code compliance.
 - NEEP also continued to provide technical guidance to the New Hampshire Building Energy Code Compliance Collaborative, which convenes to advance strategies set in the state’s [Code Compliance Roadmap](#). This quarter, NEEP provided technical guidance to the state Office of Energy and Planning regarding code compliance assessment study options.
- **Supported Cutting-Edge Code Compliance Enhancement Efforts in Rhode Island:** National Grid administers an innovative, robust energy code training program in partnership with the state Building Code Commission and NEEP through its [Code Compliance Enhancement Initiative](#). Rhode Island is one of the first states in the country that has allowed utilities to claim energy code program savings as part of its regulatory proceedings.
 - NEEP helped to assess and adjust the training and outreach activities the program delivers at the implementation team’s July meeting by providing regional insights and delivering resources to help the program prepare for the state’s proposed 2015 IECC adoption in 2016. This quarter, classroom training sessions were suspended because a new energy code was



- expected to be adopted, but the program's circuit rider service and in field trainings continued to be performed.
- NEEP also supported evaluation of the program to guide attribution of energy savings by addressing at the group's July meeting how new results from the state's code compliance assessment should be used to make adjustments to the attribution methodology.
 - **Assisted Code Compliance Assessments in Connecticut, Maryland, and Pennsylvania:**
 - NEEP continued to work alongside the Connecticut utilities and CT DEEP to refine a plan to establish and improve energy code compliance in the state. NEEP will help lead the implementation of this plan starting later this fall.
 - NEEP also continued to support the two federally funded [residential code compliance field studies](#) awarded to Maryland and Pennsylvania last year. For example, we have helped to disseminate Pennsylvania's resources and expand the state's outreach efforts as part of our leadership of the Pennsylvania Energy Code Collaborative.
 - **Extended Knowledge and Resources Through NEEP's Codes Leadership Group:** NEEP continued to facilitate the Regional Building Energy Codes Leadership Group, a forum for information dissemination and exchange between building energy code stakeholders throughout the region, to accelerate adoption of and compliance with increasingly efficient energy codes. NEEP provided the group with relevant and timely state, regional, and national updates such as reminders about voting deadlines and helpful resources regarding the 2018 IECC development process and U.S. DOE energy codes webinar series. In addition, NEEP began organizing the group's full day meeting scheduled for November.
 - **Supported New and Existing Stretch Energy Codes in Rhode Island and New York:**
 - NEEP continued to provide technical guidance to Rhode Island's effort to develop a stretch code for nonresidential properties. NEEP participated in all monthly working group meetings and provided a comparison of the 2012 and 2015 versions of the International Green Construction Code, a customized version of which serves as the basis for the state's stretch code. The updated code will be linked with various incentives from National Grid and will advance the state's 2035 goal of all buildings being zero energy once it is made available in early-to-mid 2017.
 - NEEP also supported the development of NYStretch, a voluntary stretch code that aims to provide 10-percent savings beyond New York's base energy code for residential and commercial buildings. NEEP provided technical assistance to the NYStretch stakeholder team and helped to promote a webinar on the subject scheduled for October.
 - **Supported Energy Code Compliance Efforts in Maryland:** In July, NEEP participated in the second annual Maryland energy code stakeholder meeting in Fulton, Md. At this meeting, NEEP drew from our regional perspective to answer stakeholder questions about the energy codes in surrounding states and provide insights for increasing compliance with the state energy code and the 2015 IECC from other states in our region that have pursued adoption of the same code.
 - **Disseminated 2015 IECC Code Compliance Resources to New Audiences:** NEEP continued to promote its [2015 IECC residential field guides](#), which were developed last year in anticipation of several of our states working to quickly adopt this code. NEEP demonstrated and distributed this resource directly to individuals representing several New England states at the International Code



Council's Northeast Regional Coalition meeting in Lowell, Mass. in August, as well as to many attendees at the Maryland energy code stakeholder meeting.

- **Maintained National Network of Energy Code Allies:** NEEP continued to engage with our national and regional codes counterparts, providing updates on the 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 regional energy efficiency organizations (REEOs). Specifically, NEEP reviewed two reports on energy codes this quarter: PNNL's "Code Impact Assessment" report and MEEA's "Stretch Code Policies" research paper.
- **Maintained and Updated Online Codes Resource Center:** NEEP maintained and regularly updated our [Building Energy Codes homepage](#), [News Bulletin Board](#), [Codes Tracker](#), and [Resources](#) pages to feature the latest news, events, and resources on code adoption and compliance throughout the region. In August, NEEP posted a blog providing an [update on status and projected course of state energy code adoptions throughout the region](#).

State and Federal Appliance Standards

- **Convened the Appliance Standards Working Group via Webinar:** To facilitate regional stakeholder input and share information and best practices, NEEP convened the third-quarter meeting via webinar on October 12. Twelve stakeholders from across the region joined the call to discuss the ongoing General Service Lamp and Residential Gas presentation from the Appliance Standards Awareness Project's (ASAP's) new report on future energy savings from [Next Generation standards](#).
- **Provided Comments to U.S. DOE in Response to their Notice of Proposed Rulemaking (NOPR) for Uninterruptible Power Supplies:** Projections suggest that the new standards would save 1.18 quads. This is the first proposed standards for these products, which are growing in popularity as concerns over resiliency grow as well as use of electronics. NEEP participated in a Technical Advocacy Group (TAG) led by ASAP and contributed to and signed onto [joint comment letters](#).
- **Engagement of Residential Gas Furnace Standards Process;** U.S. DOE released their long awaited Supplemental Notice of Proposed Rulemaking (SNOPR) for furnaces. Furnace efficiency is a major energy efficiency opportunity, especially for the Northeast and Mid-Atlantic region. NEEP reviewed the SNOPR, participated in a TAG teleconference, and is planning to participate remotely in the public workshop hosted by U.S. DOE, as well as preparing to submit regional comments in the fourth quarter.
- **Engagement of Portable Air Conditioners Standards Process;** This product category is of interest for the Northeast - Mid-Atlantic region as the rates for central air conditioning are lower than in hotter climates, through the summer temperatures continue to increase. As such, many households in the region that had not needed air conditioning will start looking to options, including portable air conditioners that are currently relatively inefficient. NEEP reviewed the U.S. DOE NOPR in August and signed onto a [joint letter of support](#) with ASAP.



Tracking Efficiency Policies & Results

Keep stakeholders abreast of best practices in public policy to drive energy efficiency by tracking, comparing, and making accessible state efficiency policies, their implementation, and results, and by highlighting key trends and issues.

Regional Evaluation, Measurement and Verification Forum

- **Hosted a Steering Committee Meeting on July 21:** During the meeting, the Regional Evaluation, Measurement and Verification Forum (EM&V Forum) presented on the recently-released [Gross and Net Savings Principles and Guidance](#), reviewed recently completed projects now publicly available, recent deliverables from the 2016 agenda – webinars delivered on [EM&V 2.0](#) and [EM&V Standardized Reporting](#) – as well as remaining deliverables planned for the year. Sue Coakley, NEEP's Executive Director, presented changes under development for 2017. See the Steering Committee presentation [here](#).
- **Planned, Convened, and Facilitated a Webinar on Geotargeting and Demand Response:** [Advancing the Northeast's Energy Systems with Geotargeting and DR: Policy, Program, and EM&V Perspectives](#) described activities in the region on these timely topics. During the demand response portion of the webinar, the 75 attendees heard results of a review of utility- and program administrator-delivered demand response programs in the region, including policy drivers, program strategies, benefit/cost results, and the challenges and opportunities for demand response. The geotargeting portion presented findings from research by Dunskey Energy Consulting in which benefits of geotargeting to defer T&D investment were identified and described, based on a project for National Grid pertaining to meeting capacity needs on Nantucket Island, Mass. The study described a variety of types of benefits that could also be relevant beyond geotargeted projects.
- **Completed the Load Shape Catalogue:** The Forum is pleased to present the [Loadshape Catalogue](#) and [brief report](#), prepared by DNV GL. This study can reduce the overall cost of impact evaluation and encourage consistency and credibility of results, by making results from interval data more available. The catalog is a user-friendly spreadsheet compilation of key energy and peak demand savings parameters (e.g., hours of use and coincidence factors) from recent metering-based studies in the region. The report recommends future research, based on critical review of data gaps, as well as research to address implications from new ('big data'-related) industry developments.
- **EM&V Forum Research Featured in Multiple Sessions at the ACEEE Summer Study:** Projects that were featured included presentation of the Gross and Net Savings project, demonstrations of the Loadshape Tools for Commercial Refrigeration and Variable Speed Drives, and informal sessions on the topics of: Emerging Technologies; Evaluator Certification; and EM&V 2.0 (conducted in coordination with LBNL and ACEEE). Reports will be available on the [ACEEE website](#).



- **Completed Scoping for the Certification of Energy Program Impact Evaluators Report:** At the request of and with support from U.S. DOE, NEEP serves as the project administrator and facilitator for this project. Research for the report was conducted by a team of evaluators who are leaders of the International Energy Program Evaluation Conference (IEPEC). The purpose of this project is to assess feasibility of and identify options for the development of a certification process for energy program evaluators. The [report](#) and accompanying [Roadmap spreadsheet](#) identify key decision criteria and decision points for U.S. DOE and related stakeholders to address if and when a certification is implemented. The study (Phase 1 of a multistage effort by U.S. DOE) was informed by background research on organizations with related certification offerings and on core skills and competencies required for energy program evaluation.
- **Co-Led a Strategy Discussion on Recent Trends in EM&V for Attendees at the National Energy Efficiency Advocates Meeting:** The Forum discussed EM&V priorities and shared insights and information about tools and resources under development, available nationally, or available from the Forum; lessons learned; and successful regional strategies with energy efficiency advocates. Topics included non-energy benefits, automated M&V, Clean Power Plan draft guidance, and policy drivers of EM&V locally and nationally.
- **Participated in the National Energy Efficiency Registry (NEER) Working Group's Effort by Sharing the Forum's Draft Standardized Reporting Forms:** Forum staff contributed to several working group webinars and all-day meetings to assist in the development of NEER administrative tools and decisions leading to development of a potential registry for reporting energy efficiency impacts. One of the tools shared was the Forum's [Model EM&V Methods Standardized Reporting Forms](#).

Regional Energy Efficiency Database

- **Forum Consultant Peregrine Energy Group Completed Updates to REED:** In this round of updates, Peregrine completed minor cosmetic updates to the [Regional Energy Efficiency Database \(REED\)](#) including presenting the most recent program year of data as the default view and updating a graph to include the correct units.
- **REED Included in a Presentation at the Energy Information Administration's Annual Conference in Washington, D.C.:** REED was featured in a session on [Measuring Energy Efficiency: Opportunities from Standardization and Common Metrics](#). In this session, Elizabeth Titus, Acting Director of the EM&V Forum, discussed how REED uses standardized metrics to compare energy efficiency program results across the Northeast and Mid-Atlantic states.
- **Second Issue of the Bi-Monthly Blog Series, REED Renderings, Released:** The purpose of these blogs is to bring attention to interesting trends seen in REED data and the stories behind those trends. This [issue](#) discussed the PJM Interconnection's latest generation capacity auction results, energy efficiency as a resource, and the growth and potential of energy efficiency in the Mid-Atlantic states.

Public Policy Trends Analyses, Reports and Education

- **Tracking Trends in State Energy Efficiency Investment and Savings Remains a Mainstay of Our Work:** In addition, our electronic communication resources including the [NEEP blog](#), [The Policy Tracker](#), and [Highlights](#) help to disseminate this information throughout the region. Among our popular [blog entries](#) for the quarter:



- [Big Ideas from the NEEP Summit](#)
- [Striving for a Zero Energy Home](#)
- [Policy Tracker: August 2016](#)
- [Policy Implications of Air Source Heat Pumps](#)
- [NY REV: Ten Details You May Not Know](#)
- **Promoted Next Generation Energy Efficiency:** NEEP continued to disseminate NEEP's annual [Regional Roundup of Energy Efficiency Policy](#) during personal meetings, through public comments, in web links, and by mailing hard copies to key individuals in the states. With the theme of "Next Generation Energy Efficiency," the *Roundup* continues to lend itself to our work. The 2016 *Regional Roundup's* landing page has received more than 775 unique views since publication.
- **Provided Technical Assistance & Shared Best Practices:** NEEP prepared Issues Briefs on [Policies Driving Air Source Heat Pump Expansion](#) and [Best Practices in Designing Industrial Energy Efficiency Programs for Delaware](#). Through our involvement in the New Hampshire Energy Efficiency and Sustainable Energy Board, we were asked to share information relative to best practices for creating and supporting stakeholder efficiency boards, as that board is set to have a new charge relative to advising on the statewide efficiency programs. We were able to draw from our knowledge and relationships in other states, as well as the SEE Action Network's guidance on [Energy Efficiency Collaboratives](#).
- **Provided Direct Technical or Strategic Assistance Throughout the Region, by:**
 - Meeting with staff of the Rhode Island Office of Energy Resources, including its new Commissioner, Carol Grant, in Providence.
 - Responding to an inquiry from Massachusetts Assistant Attorney General Elizabeth Mahony regarding potential energy efficiency legislation.
 - Consulting with Chambers for Clean Energy and Innovation regarding an initiative with the Needham and Newton, Mass. chambers of commerce to promote energy efficiency audits in local businesses.
 - Informing the annual ACEEE Scorecard on Energy Efficiency Policy by reviewing and commenting on the proposed scoring for Northeast and Mid-Atlantic states.

Note: NEEP does not advocate for specific policy positions in any state proceedings, rather it serves as a technical resource to provide data and other educational materials to inform such proceedings.

- **Provided Thought Leadership in and Beyond the Energy Efficiency Community:** NEEP staff spoke at national conferences and online workshops including the following:
 - Natalie Treat, Senior Manager, Public Policy Outreach, spoke on Next Generation Energy Efficiency at the State Government Network of the American Institute of Architects on July 12.
 - Brian Buckley, Senior Policy Associate, presented on the topic of Integrating Energy Efficiency and Demand Response at the ACEEE Summer Study on August 18; on a webinar presented by the National Governor's Association on September 15; and to NEEP's Home Energy Management System (HEMS) working group meeting on September 21.



- Jim O'Reilly, Director of Public Policy, and Mr. Buckley moderated and presented, respectively, at a national webinar presented on September 8 by NEEP's EM&V Forum on "Advancing the Northeast's Energy System with Geotargeting and Demand Response: Policy, Program and EM&V Perspectives."
- Mr. Buckley also presented to the online "Utility Roundtable," hosted by The Climate Group, on the topic of LED street lighting on September 22.
- Mr. O'Reilly presented on energy efficiency policy in the Northeast and Mid-Atlantic region as part of the AESP's national online virtual conference on "The 411 on Policy: Energy Efficiency Policy Today" on September 27.
- Mr. O'Reilly also participated in the Energy Foundation Advocates Conference in Atlanta, Ga. on September 28-30, presenting on a panel on "Balancing Defense and Offense – Lessons Learned from Recent Policy Setbacks and Successes."
- **Provided In-Person Working Group Technical Assistance in New Hampshire:** NEEP has played an integral role in New Hampshire's [Grid Modernization Working Group](#), participating in monthly meetings and stakeholder education and consensus building. Per Order IR-15-296 of the state's Public Utilities Commission, the group is charged with exploring options and developing recommendations on the policies and investments necessary to help New Hampshire modernize the electric grid. Recommendations are expected in early 2017.
- **Participated in Stakeholder Advisory Meetings:** Throughout the quarter, staff participated in monthly stakeholder advisory meetings where such frameworks have been established, including the Mass. Energy Efficiency Advisory Council (EEAC), the Delaware Energy Efficiency Advisory Council (EEAC), the Connecticut Energy Efficiency Board (EEB), the Rhode Island Energy Efficiency Advisory Council (EERMC), Maryland EmPOWER Planning Group, and New York proceedings via the Clean Energy Advisory Council (CEAC).
- **Collaborated with Regional and National Partners:** NEEP collaborated with numerous allies, including the Acadia Center, Conservation Law Foundation, Natural Resources Defense Council, the Pace Energy and Climate Center, E4TheFuture, National Consumer Law Center, Interfaith Power and Light, Massachusetts Climate Action Network, Chesapeake Climate Action Network, Sierra Club, New York Clean Energy Organizations Coalition, and many others on policy developments in states across the region. NEEP sits on the policy committee of the Northeast Clean Energy Council, NECEC's Grid Modernization Working Group, and the Massachusetts Global Warming Solutions Project.
- **Shared Insights with NEEP Allies:** As part of the newly launched [Allies](#)-only webinar series, the Policy team has shared insights and updates on important state energy efficiency proceedings and policy developments. This portion of the bi-monthly calls have been rated for their high value to participants. Third-quarter webinars for Allies were held on July 28 and September 27.

NEEP Events

- **Air Source Heat Pump Workshop:** NEEP gathered 87 people at the Mitsubishi Training Center in Southborough, Mass. for the [2016 Air Source Heat Pump Workshop](#). We would like to thank event sponsors Daikin, Fujitsu, LG, the Massachusetts Clean Energy Center, and Mitsubishi Electric for their participation and support.



- **Residential Lighting Workshop:** NEEP hosted 48 attendees at the Energize CT Center in North Haven, Conn. for our [2016 Residential Lighting Workshop](#). This event was organized with the support of event sponsors E4TheFuture, Energy & Resource Solutions, and Philips Lighting.
- **Home Energy Management Systems (HEMS) Workshop:** A slightly smaller crowd of 43 joined the [HEMS Workshop](#), which helped engage the audience in break-out and brainstorming sessions. The event was hosted at the Energy CT Center in North Haven, Conn. We thank event sponsors E4TheFuture, Energy & Resource Solutions, and WeatherBug Home for their support of this successful event.
- **EM&V 2.0 Workshop:** The [EM&V 2.0 topic](#) raised a lot of interest with 64 attendees joining NEEP for the day-long workshop at the Energize CT Center in North Haven, Conn. We thank event sponsors E4TheFuture, Energy & Resource Solutions, EnergySavvy, and WeatherBug Home for their support of the event's engaging discussions.



2016 NEEP SUPPORTERS

NEEP would like to recognize and thank our 2016 funders, including our [Sponsors](#), [Allies](#), [Regional EM&V Forum funders](#), [DesignLights Consortium Members](#), and [federal and foundation funders](#). We are grateful for their support, which makes this work possible.

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