

Northeast Energy Efficiency Partnerships

2017 Q3 Report

Executive Summary

In 2017, NEEP cast its eye on the lofty goal of assisting the Northeast & Mid-Atlantic region in reducing total carbon emissions 80 percent by 2050. While NEEP's focus may have pivoted in response to the changing industry landscape, one thing remained constant – our work to bring stakeholders together to engage around energy solutions. We're proud that through collaboration, NEEP and our network of state and federal partners, allies, foundations, and other stakeholders from across the region and nation have worked to embrace next generation energy efficiency as a core strategy to meet energy needs in a carbon-constrained world.

30

Events & Stakeholder Engagement

- Planned for the November 8 <u>Regional SEM Collaborative Workshop</u> to be held in New York City In partnership with Efficiency Vermont.
- Attended the <u>International Energy Program Evaluation Conference</u>, which included a panel on M&V
 2.0 and provided the opportunity to increase awareness of NEEP's project.
- Co-hosted with the Appliance Standards Awareness Project an in-person state standards workshop to discuss opportunities for near-term state standards adoption.
- Convened the Regional High Performance Buildings Leadership Group to discuss the latest strategies and challenges related to developing and maintaining healthy, energy efficient buildings.
- Participated on a panel as part of <u>Rhode Island's Power Sector Transformation Initiative</u> to provide comment on the initiative's framework document. We encouraged the state to prioritize the thermal sector aspects of electrification through the enhanced promotion of ASHPs.
- Attended <u>ACEEE's Industrial Summer Study</u> conference and the preceding Strategic Energy Management (SEM) Collaborative meeting.
- Engaged stakeholders through the HEMS Working Group, hosting meetings on July 25 and September 22 with 37 and 34 participants, respectively.
- Planned for the December 13 <u>2017 HEMS Virtual Workshop</u>, focused on equipping the smart home of today to be ready for the strategically electrified world of tomorrow.
- Planned for upcoming contractor smart home trainings with various regional and national home performance organizations.
- Tracked trends and needs in the commercial lighting sector and participated in the National Utility Lighting Exchange (NULX) to track market developments in commercial lighting.
- Presented at a public webinar offered by US DOE in July, "Making Program Evaluation Work for You," including discussion of M&V 2.0 pilots and tools.
- Hosted a <u>public webinar</u> on Non-Intrusive Load Monitoring (NILM) to explore the advances, opportunities, and potential limitations of NILM, as well as the ins and outs of program design and customer engagement.
- Hosted a <u>webinar on LBNL's M&V 2.0 tool</u> for state partners of the M&V 2.0 pilot project to provide them with an opportunity to learn about how the software works and discuss ideas for using the tool in their states.
- Presented at an AESP Brownbag Webinar, <u>"Shifting Our Cost-Effectiveness Perspectives,"</u> focused on cost-effectiveness and non-energy impacts.

Events & Stakeholder Engagement

- Provided input into various national protocol development meetings, including engagement with NEER, NREL, the EPA Retail Products Platform EM&V tools, and LBNL Advanced M&V Stakeholder Group.
- Discussed federal and state standards updates at NEEP's quarterly working group meeting on September 29 attended by 14 stakeholders.
- Worked with stakeholders throughout the region to advance the collective understanding of and commitment to appliance standards.
- With the R.I. Office of Energy Resources, hosted the R.I. Zero Energy Buildings Working Group kickoff meeting to discuss strategies to move the state closer to its zero energy targets.
- Participated as a national partner in US DOE's Zero Energy Schools Accelerator, focused on developing replicable roadmaps for schools to achieve zero energy performance.
- Assisted with planning for the <u>2017 US DOE Energy Codes Conference</u> and spoke on a panel titled "Scaling up Codes Toward Multifamily Energy Efficiency," drawing from a joint <u>REEO multifamily</u> report published last year.
- Conducted a quarterly Energy Code Leadership Group webinar that covered an update of current state energy code adoptions, regional stretch codes, code adoptions, and an overview of the <u>2018</u> <u>International Energy Conservation Code</u>.
- Attended the 2017 NASEO Annual Meeting, presenting on NEEP's HELIX project during a home energy labeling panel that highlighted synergistic activities and provided context about the importance of home energy labeling information in the real estate market.
- Held a HELIX Advisory Committee meeting to determine which states are interested in piloting HELIX, which states have data available to import into HELIX, and who to engage first.
- Planned for the November 15 <u>HELIX Virtual Summit</u>, an annual event to engage stakeholders and inform them about the progress of the project.
- Reviewed and added new individuals to the HELIX stakeholder list that receives general updates on the project to increase our engagement and outreach efforts.
- Convened the N.H. High Performance Schools Working Group to plan for the 2017 <u>N.H. High</u> <u>Performance Schools Summit</u> and discuss the state's goal of increasing the number of schools benchmarked in EPA's Portfolio Manager.

Events & Stakeholder Engagement

- Participated in US DOE Home Energy Information Accelerator discussions to provide regional updates related to home energy labeling, which will be used to inform a toolkit being developed by the Accelerator.
- Convened the Strategic Electrification Leadership Committee via webinar on July 26 to discuss the draft Strategic Electrification Regional Assessment as well as takeaways from the June <u>Strategic</u> <u>Electrification Summit</u>.
- Presented an overview of the Strategic Electrification project to other NEEP working groups at the August 29 in-person meeting of the High Performance Buildings and Communities Working Group.
- Published two blogs about strategic electrification: <u>Driving Electrification</u> (republished by the Zero Energy Project); and <u>A Regional Approach to Deep Decarbonization</u>.
- Hosted a quarterly meeting of the regional ASHP Working Group to discuss regional updates, NEEP's planned 2018 activities, installer guidance materials, and integrated controls.
- Convened a call with ISO New England, who will be contributing New England electric utility program data for inclusion in the next update to the Regional Energy Efficiency Database (REED).
- Attended a technical hearing on Connecticut's Comprehensive Energy Strategy to interact with local stakeholders and gauge their reaction to the strategies and goals outlined in the strategy.
- Attended the 2017 NASEO Annual Meeting, participating in sessions and engaging with regional state energy offices on state-level activities.
- Attended technical sessions in R.I. for the Power Sector Transformation Initiative focused on the utility business model, distributed system planning, and beneficial electrification.
- Participated in regional working groups focused on public policy and grid modernization coordinated by the Northeast Clean Energy Council (NECEC) – to learn about state and regional policies and initiatives.

Research, Analysis, Reports & Case Studies

- Began development of the final report for the commercial-sector business models project, which will provide information on financing, business models, new technologies, and will also focus on strategies to build demand for commercial efficiency projects and put new tools to use.
- Began work on the Connecticut Construction Best Practices study with <u>Tunxis Community</u> <u>College (TxCC)</u> utilizing a methodology created by the US DOE and the Pacific Northwest National Laboratory (PNNL) to collect data to determine the rate of compliance with the 2009 energy code for residential construction throughout the state of Connecticut.
- HELIX project IT contractor, ClearlyEnergy, developed a functioning version of HELIX, which will be followed by beta testing of the system from November through February.
- Developed a course curriculum for real estate professionals to help professionals better understand the relevance of HELIX and the importance of energy information in the real estate market. NEEP also developed a one-page resource for real estate professionals to highlight how HELIX will make it easier to incorporate energy information into a listing by automating the process.
- Updated NEEP's brief, <u>Building Energy Benchmarking and Disclosure Policies in the Northeast</u> <u>and Mid-Atlantic</u>, which provides an overview of benchmarking ordinances throughout the region.
- NEEP's ccASHP <u>specification and associated list</u> now includes roughly 500 products and was downloaded over 300 times in the third quarter.
- Began discussions regarding potential updates to the <u>ccASHP specification listing</u> with the project subcommittee, made up of non-manufacturer stakeholders who are committed to the effective evolution of the specification to meet stakeholder needs.
- Finalized the contract between NEEP and the Connecticut Department of Energy & Environmental Protection (CT DEEP) for an M&V 2.0 research project for a US DOE funded project, Standardized, Sustainable and Transparent EM&V-Integrating New Approaches.
- Submitted a contract proposal to PNNL to support REED data collection and provide technical assistance to the US DOE Energy Information Administration (EIA) to investigate processes and methods to add measure-level cost-effectiveness metrics as well as incentive values for measure-level data for as many NEEP states as feasible to REED.
- Began work on the Next Generation Energy Efficiency progress report, completing an outline,

Research, Analysis, Reports & Case Studies

(cont'd)

dissemination plan, and first draft report, which will highlight state progress in implementing strategies in energy efficiency to achieve carbon emissions reductions.

- Conducted research on current uses of SEM in water/wastewater facilities to inform a report that will highlight existing use of SEM in these energy-intensive facilities, as well as opportunities to expand the adoption of SEM into these types of facilities.
- Conducted research to inform an upcoming report on SEM that will cover experience, results, and best practices for ratepayer-funded energy efficiency program adoption and implementation of SEM.
- Began development of several Smart Energy Home resources, including two home performance focused briefs as well as a marketing guidance document.
- Continued research on innovative new approaches for commercial-sector efficiency, as well as strategies for successfully getting to "yes" with potential commercial customers.
- Convened stakeholders and completed the draft Mid-Atlantic Technical Reference Manual (TRM) v7.5 to develop and document common assumptions for prescriptive residential and commercial/ industrial electric energy efficiency measures savings.
- Published the <u>Advanced M&V Brief: An Evolving Industry</u> to provide an inventory and overview of advanced M&V vendors – companies and software tools – currently on the market.
- Developed a <u>regional guidance document</u> to provide clarity on the process of setting state standards, which includes information on key stakeholders, timing, and strategies for successful adoption of state-level appliance standards.
- With ASAP, created informational resources on state standards opportunities with key information about the appliance standards package.
- Prepared <u>comments</u> in support of ENERGY STAR's 2018 Most Efficient proposed criteria, to
 push the leading efficient products into the market and establish a more efficient ecosystem of
 products to ensure subsequent standards can be set appropriately at high efficiency levels.
- Created and engaged a task force for NEEP's Community Action Planning for Energy Efficiency (CAPEE) project, an interactive online platform designed to provide community-level stakeholders with actionable next steps to assist with energy and carbon reduction goals.
- Conducted research on building energy codes topics including: 2015 IECC versus 2018 IECC, and ASHRAE 90.1 2013 versus ASHRAE 90.1 2016; Passive House Standards; 2018 IECC Energy Rating Index (ERI); and first costs and financing related to zero energy buildings.

Research, Analysis, Reports & Case Studies

- Developed the governance and operations policy/structure for HELIX, which will help determine the database access structure and who the owners may be within the structure.
- Began research on policy and market drivers for states to implement home energy labeling programs, and began development of an exemplar about Connecticut to frame HELIX in the larger home energy retrofit space and that will show the significance of the state's 23,000 Home Energy Scores.
- Conducted research and analysis for development of a benchmarking dashboard, which will become part of the CAPEE project to provide information related to regional building energy benchmarking ordinances.
- Began development of a regional Strategic Electrification Action Plan, which will provide an addendum to NEEP's recently published <u>Northeastern Regional Assessment of Strategic</u> <u>Electrification</u>.
- Published a <u>REED Renderings</u> issue on summer demand savings as part of a series of blogs to highlight interesting trends in data and the stories behind those trends.
- Commenced collection of 2016 program year data and documents for the REED update. REED currently includes program-level data for ten states: Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont.
- Published policy trackers on <u>energy storage</u> and "<u>live from NOLA</u>" on the NEEP blog to provide updates for regional stakeholders on state-level regulatory and legislative matters.

Technical Assistance & Resource Centers

- Provided technical assistance and resources to the City of Providence, R.I. to assist with the development and enactment of a city-wide building energy benchmarking ordinance.
- Attended an introductory workshop on the details of US DOE's new SEM resource, <u>50001 Ready</u>.
 NEEP will be working with regional partners to utilize the resources available through this program, making promotion and adoption of SEM simpler for potential stakeholders.
- Assisted Rhode Island stakeholders in advancing state appliance standards, coordinating with state stakeholders – including the Office of Energy Resources (OER), National Grid, members of the state efficiency advisory board, and energy organizations – to prepare for 2018 success of state standards.
- Provided technical assistance to the Town of Hanover, N.H., engaging with members of the town's Energy Committee which is in the early stages of establishing energy reduction plans and is seeking guidance on key first steps that should be considered.
- Provided resources and technical assistance to the Town of Belmont, Mass. regarding the construction of their new high school, which they hope to achieve as a zero energy building.
- Provided the City of Amherst, Mass. with technical assistance to support construction of the citiy's new school, library, and Department of Public Works (DPW) building, including a fire station, to zero energy specifications.
- Presented new building codes overview to the Delaware Codes Coalition, which is composed of home builders, energy raters, and policy makers and makes recommendations to the state on code adoption and technical amendments. Delaware, currently on the <u>2012 IECC</u>, is looking to adopt the <u>2018 IECC</u> and may be the first state in the NEEP region to do so.
- Provided technical assistance to the state of Maryland, which requested help regarding the <u>2015</u> <u>IECC Energy Rating Index (ERI)</u> compliance path as it relates to air changes within a residential structure.
- Populated NEEP's <u>Strategic Electrification webpage</u> with new project content, including information from the July 26 Strategic Electrification Advisory Committee quarterly meeting.

Technical Assistance & Resource Centers

- Disseminated <u>A Guide to Sizing & Selecting ASHPs in Cold Climates</u> and <u>A Guide to Installing</u> <u>ASHPs in Cold Climates</u>, which provide practical, best practice guidance related to sizing, selecting, and installing ASHPs in cold climates.
- Provided written public comment to Rhode Island on <u>strategic electrification</u>, <u>the utility</u> <u>business model and AMI</u>, and <u>distribution system planning</u>, as well as to Connecticut on their <u>draft Comprehensive Energy Strategy</u>, highlighting areas where NEEP can provide technical assistance.

Regional Market Transformation Strategies

- Published a new report, <u>Northeastern Regional Assessment of Strategic Electrification</u>, which includes a technology and market assessment, regional scan of policy and program activity related to strategic electrification, electrification impact modeling analysis, as well as potential near-term actions and key issues to resolve.
- NEEP's HEMS initiative worked toward the strategies and goals set forward in NEEP's 2016 <u>Smart Energy Homes report</u>, and specifically related to smart considerations into water heating, advancing smart thermostat program success, and engaging with the home performance industry to ensure that smart homes are efficient homes.
- Continuing from NEEP's 2016 Smart Energy Homes report, NEEP advanced the discussion of smart water heating, hosting two topical discussions for interested stakeholders – including water heater manufacturers, researchers, program administrators, and program implementers – to determine some near-term needs in the smart water heating space.
- Completed and analyzed a survey to identify stakeholder key barriers to and opportunities for market transformation in commercial efficiency, including deep retrofits.
- Updated the Northeast Collaborative for High Performance Schools Criteria (NE-CHPS) to ensure that schools are being put on the pathway to zero energy while also reducing the documentation burden placed on architects.
- Completed draft of a new report, "Market Transformation to a Zero Energy Zero Carbon Region through Energy Codes," to provide market transformation strategies that better position the region to advancing building energy code development to enact zero energy buildings codes within the next 15 to 25 years, and also improve the administration of building energy codes to ensure the desired performance.

Q3 Web Metrics

Q3 2016 Unique Visitors

17,807

Q3 2017 Unique Visitors

21,508^(20.78%)

Q3 2016 Page Views

43,043

43,960 (2.13%)

Inbound Traffic

Q3 2017 Page Views



Direct

Typing a URL directly into the browser, using a bookmark, or non-tracked links in emails, PDFs, etc.

Referral

Traffic originating from another website.

E-Blasts

Impressions directed from tracked links in our email communications

Social

Traffic originating from social media outlets e.g. Twitter, Facebook, LinkedIn, Pinterest, etc.



Q3 Web Metrics

Q3 2016 Total Downloads

Q3 2017 Total Downloads

4,610









Top Blogs

- 1. Hot Strategies for ccASHPs
- 2. Driving Electrification
- 3. A New Home For NEEP
- 4. What Is ASHRAE Standard 90.2?
- 5. A Look Inside The Region's NWA Policies

Top Media Hits

Building Energy Magazine (September 1, 2017) – What Is Strategic Electrification? Zero Energy Project (September 25, 2017) – Driving Electrification

Top Downloads

- 1. ccASHP Specification Application
- 2. ccASHP Spec Listing 06/23/17
- 3. ccASHP Installers Guide
- 4. ccASHP Sizing & Selecting Guide
- 5. 2016 ASHP MT Strategy Report

Q3 Web Metrics





71%



Leaders By State

- 1. Massachusetts
- 2. New York
- 3. Virginia
- 4. California
- 5. New Jersey

Leaders By City

- 1. Boston
- 2. New York
- 3. Ashburn
- 4. Washington
- 5. Burlington

Top Cities in Massachusetts

- 1. Boston
- 2. Cambridge
- 3. Waltham
- 4. Concord
- 5. Winchester