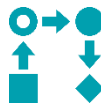




NEEP 2017 QUARTER-THREE REPORT

Executive Summary – Quarter-Three Highlights

In 2017, NEEP cast its eye on the lofty goal of assisting the Northeast & Mid-Atlantic region in reducing total carbon emissions 80% 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.



Facilitate Market Transformation for Advanced Solutions



Northeast Industrial Strategic Energy Management Initiative

Planned for the November 8 [Regional SEM Collaborative Workshop](#) to be held in New York City: In partnership with Efficiency Vermont, NEEP began organizing our annual in-person regional working group meeting focused on program adoption and implementation of Strategic Energy Management (SEM). Initial agenda development and speaker invitation efforts were launched in the third quarter, and we expect to host approximately 40 attendees at the event.



Home Energy Management Systems (HEMS)

HEMS initiative worked toward the strategies and goals set forward in NEEP's 2016 [Smart Energy Homes report](#): Specifically, progress was made toward including 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. These are the three top strategies identified in our Smart Energy Homes report and through stakeholder discussions, distribution of resources, and gearing up for the remainder of the year's activities, significant progress was made on all three strategies.



Emerging Commercial-Sector Business Models for Efficiency

Focused on engaging stakeholders and developing the final report for the commercial-sector business models project: The report will be presented in two parts: Part 1 will focus on providing updates and information about innovative financing, business models, new technologies, and other relevant consideration for commercial-sector efficiency; Part 2 will focus on strategies to build demand for commercial efficiency projects and put the new tools from Part 1 to use.



Regional EM&V Forum (EM&V 2.0 Focus)

Attended the [International Energy Program Evaluation Conference](#): The conference included a panel on M&V 2.0, and provided the opportunity to increase awareness of the project regionally and nationally. NEEP also moderated session on Next Generation Evaluation – Storage, PV and Zero Energy Buildings.



State and Federal Appliance Efficiency Standards

Co-hosted with the Appliance Standards Awareness Project an in-person state standards workshop: With 20 participants in person and several others joining via teleconference, this workshop brought stakeholders together to learn and discuss opportunities for near-term state standards adoption. Highlights included presentations on the savings opportunity from the package of efficient products identified in [ASAP’s recent report](#), a discussion led by a Vermont-based legislative champion of what it took to get standards moving in that state, and state-specific group breakouts. Participants from across the region – including from N.Y., R.I., Mass., Conn., N.H., and Vt. – were present.



Promote Resilient, High Performance Buildings & Communities



High Performance & Zero Energy Buildings, Homes, and Communities

Convened the Regional High Performance Buildings Leadership Group: On an annual basis, NEEP brings together stakeholders from across the region for an in-person meeting to discuss the latest strategies and challenges related to developing and maintaining healthy, energy efficient buildings. This meeting is a forum for stakeholders from different communities/states to meet and share their experiences. The event consisted of presentations on topics such as state and local government updates, an overview of NEEP’s community energy project, and resources from the U.S. Department of Energy (US DOE) and U.S. Environmental Protection Agency (US EPA). Participants engaged in breakout group discussions to identify how communities work toward the completion of their goals such as converting their streetlights to LEDs. Information gained during these breakout discussions is being used to inform NEEP’s community energy project.



Building Energy Codes

Began work on the Connecticut Construction Best Practices study: NEEP and [Tunxis Community College \(TxCC\)](#) have partnered to conduct a statewide Connecticut Construction Best Practices study. Utilizing a methodology created by the US DOE and the Pacific Northwest National Laboratory (PNNL), TxCC will collect 63 data sets and 242 data points. This data will be analyzed by PNNL, and the outcomes will show the rate of compliance with the 2009 energy code for

residential construction throughout the state of Connecticut. The study will also identify the impact of code implementation on energy savings and carbon emissions reductions. TxCC was chosen as the study contractor due to its offering of energy-related certificate programs and the potential to grow the code compliance workforce by having students participate in an actual energy code study. Similar [energy code field studies](#) have been conducted in a dozen other states.



Home Energy Labeling Information Exchange (HELIX)

The HELIX project IT contractor, ClearlyEnergy, continued to work on developing the HELIX database: This work resulted in a functioning version of HELIX, which will be followed by beta testing of the system from November through February. Now that the database is tangible, NEEP and the project team will provide demos to states to demonstrate its functionalities, and better understand their needs related to HELIX.



Building Energy Rating and Disclosure

Provided technical assistance and resource to the City of Providence, R.I.: NEEP has been engaged with the City of Providence to assist with the development and enactment of a city-wide building energy benchmarking ordinance. We have actively participated in stakeholder meetings by providing resources, case studies, and presentation materials, and responding to questions at these meetings. Once enacted, Providence will be added to the shortlist of other cities in the Northeast that have passed benchmarking policies, which help cities and private building owners track and manage their energy usage.



Share Best Practices to Advance Strategic Electrification & Next Generation Energy Efficiency



Regional Strategic Electrification Assessment

Published a new report – [Northeastern Regional Assessment of Strategic Electrification](#): The report 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 – with input from the Strategic Electrification Leadership Committee – provided feedback to the consultant team developing the report to inform updates in advance of its final publication. We are planning to develop an addendum to the report that will identify priority actions to move forward strategic electrification in the region.



Cold Climate Air-Source Heat Pumps (ccASHPs)

Began discussions regarding potential updates to the ccASHP specification: Since its development by NEEP in 2015, the [ccASHP specification listing](#) has grown significantly and is

now utilized by several regional stakeholders. In order to maintain its usefulness and relevancy, continuous review and updates are necessary. NEEP reconvened the [Cold-Climate ASHP Specification](#) on September 28 to discuss potential updates. The subcommittee is made up of non-manufacturer stakeholders who are committed to the effective evolution of the specification to meet stakeholder needs. The group will continue to meet in the coming months with a goal of developing a proposal for changes to the specification. The process will include an opportunity for public, stakeholder review and comment before any changes to the specification are finalized.



Advanced Efficiency Leadership Network



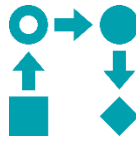
Regional Energy Efficiency Database (REED)

Submitted a contract proposal to PNNL to support REED data collection and provide technical assistance to the US DOE Energy Information Administration (EIA): NEEP will work with EIA to update REED as a product of the regional Evaluation, Measurement & Verification (EM&V) Forum. We will 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. 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.



State and Local Policy Tracking, Analysis, and Technical Assistance

Began work on the Next Generation Energy Efficiency Progress report: NEEP completed an outline of the report, a dissemination plan, and started working on the draft report, which will be finalized in the fourth quarter. This report replaces NEEP's annual *Regional Roundup* and provides a high-level view of state progress in implementing strategies in energy efficiency to achieve carbon emissions reductions.



Facilitate Market Transformation for Advanced Solutions

Help to transform markets with advanced energy efficiency technologies and solutions through public policy, research and collaboration, and public-private partnerships that deliver regional-scale impacts.

Events & Stakeholder Engagement

- **Attended [ACEEE's Industrial Summer Study](#) conference and the preceding Strategic Energy Management (SEM) Collaborative meeting:** The ACEEE conference was an opportunity to learn from leading programs and practitioners of industrial energy efficiency and more specifically SEM and the opportunities that it offers our region. NEEP spoke on a panel during the SEM Collaborative meeting preceding the ACEEE event to provide a characterization of where the Northeast and Mid-Atlantic are currently with respect to SEM program implementation. We are committed to the ongoing discussion about the concept of making the national collaborative a permanent event and possibly and more formal entity.
- **Engaged stakeholders through the HEMS Working Group:** NEEP hosted HEMS Working Group meetings on July 25 and September 22 with 37 and 34 participants, respectively. The meetings were highly engaging, with a post-webinar survey indicating that all elements were of benefit to various stakeholders, and an overall high satisfaction with the meetings.
- **Planned for the upcoming HEMS Virtual Workshop:** NEEP began to plan for and coordinate the [2017 HEMS Virtual Workshop](#) taking place on December 13, 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:** NEEP has been working with various regional and national home performance organizations – including the Home Performance Coalition, Efficiency First, and local efforts in Mass., Conn., N.Y., and Md. – to plan, coordinate, and schedule contractor trainings to be delivered in the fourth quarter.
- **Tracked trends and needs in the commercial lighting sector:** As research for NEEP's commercial-sector project continues, the need is clear that to be successful economically, one must incorporate high-efficiency lighting into any bundle of efficiency offerings. As such, NEEP has been participating in the National Utility Lighting Exchange (NULX) to track market developments in commercial lighting, including participation in a NULX meeting.
- **Attended the [International Energy Program Evaluation Conference \(IEPEC\)](#):** The event included a panel on M&V 2.0 which provided an opportunity to increase awareness of NEEP's project regionally and nationally.
- **Presented at a public webinar offered by US DOE in July, "Making Program Evaluation Work for You":** The webinar included presentation and discussion of M&V 2.0 pilots and tools as well as discussion of exemplary evaluation studies from New England.



- **Hosted a [public webinar](#) on Non-Intrusive Load Monitoring (NILM):** This webinar, delivered on July 31, featured guest speakers Terese Decker from Navigant and Dave Korn from Cadmus. It explored the advances, opportunities, and potential limitations of NILM, as well as the ins and outs of program design and customer engagement.
- **Hosted a [webinar on LBNL's M&V 2.0 tool](#) for state partners of the M&V 2.0 pilot project:** This webinar, delivered on August 24, brought together project partners of the Connecticut-hosted DOE SEP M&V 2.0 project and LBNL staff to walk through the LBNL tool being used for the commercial pilot of this project. Stakeholders had the opportunity to learn about how the software works and discuss ideas for using the tool in their states.
- **Presented at an AESP Brownbag Webinar, “Shifting Our Cost-Effectiveness Perspectives”:** This webinar, delivered on July 13, focused on cost-effectiveness and non-energy impacts. A recording is available [here](#).
- **Provided input into various national protocol development meetings:** This included 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 via teleconference:** On September 29, NEEP hosted a quarterly Appliance Standards Working Group meeting, attended by 14 stakeholders. The meeting agenda focused on both updates on federal activities and progress on state standards.
- **States advanced appliance standards:** NEEP has been working with stakeholders throughout the region to advance the collective understanding of and commitment to appliance standards. In addition to email communication and individual phone calls, NEEP planned to host a follow-up call on October 10 with expected participation from N.Y., R.I., Mass., Conn., N.H., and Vt.

Research, Analysis, Reports, and Case Studies

- **Conducted research on current uses of SEM in water/wastewater facilities in the region and beyond:** This research will inform the first phase of 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. The report is expected to be completed in the fourth quarter.
- **Conducted research to inform an upcoming report on SEM:** The report will cover experience, results, and best practices for ratepayer-funded energy efficiency program adoption and implementation of SEM. The report, to be completed in the fourth quarter, will serve as a resource for energy efficiency programs that are exploring SEM as a potential measure to offer their customers.
- **Began development of several Smart Energy Home resources:** Progress was made on several resources, including two home performance focused briefs as well as a marketing guidance document. These resources will be completed in the fourth quarter.
- **Research continued on innovative new approaches for commercial-sector efficiency:** NEEP's research on innovative approaches toward commercial efficiency, as well as strategies for



successfully getting to “yes” with potential commercial customers, continued. This research will be compiled into the final report upon completion.

- **Convened stakeholders and completed the draft Mid-Atlantic Technical Reference Manual (TRM) v7.5:** The TRM is a product of the regional EM&V Forum, and sponsored by several Mid-Atlantic states. The intent of the project was to develop and document in detail common assumptions for prescriptive residential and commercial/industrial electric energy efficiency measures savings.
- **Published the [Advanced M&V Brief: An Evolving Industry](#):** This brief seeks to provide an inventory and overview of advanced M&V vendors – companies and software tools – currently on the market. It also presents case studies of specific projects from several applications that have used advanced M&V tools for a variety of end goals, from evaluating impact to operational efficiencies and businesses reducing their energy costs. This information is intended to provide insight into the often-invisible world of advanced M&V by providing key information on vendors as well as diving into some real-world applications. Our aim is to help utilities, evaluators, and the greater efficiency community to make more informed decisions around selection of advanced M&V vendors and the range of potential services that could be provided.
- **Developed a regional guidance document to provide clarity on the process of setting state standards:** NEEP created a [state standards guidance document](#) and shared it with interested parties. This is a living document that includes information on key stakeholders, timing, and strategies for successful adoption of state-level appliance standards.
- **Created informational resources on state standards opportunities:** NEEP has been coordinating closely with the Appliance Standards Awareness Project (ASAP) to create a sample fact sheet with key information about the appliance standards package. Originally, this resource was created for Rhode Island, though there is the potential to customize it as needed for other states.
- **Pushed high-efficiency markets forward through the ENERGY STAR Most Efficient program:** NEEP prepared [comments](#) in support of ENERGY STAR’s 2018 Most Efficient proposed criteria. This program is incredibly important to push the leading efficient products into the market and establish a more efficient ecosystem of products, especially those that have existing state or federal standards, to ensure subsequent standards can be set appropriately at high efficiency levels.

Technical Assistance and Resource Centers

- **Attended an introductory workshop on the details of US DOE’s new SEM resource, [50001 Ready](#):** 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.
- **Finalized the contract between NEEP and the Connecticut Department of Energy & Environmental Protection (CT DEEP) for an M&V 2.0 research project:** The US DOE awarded Connecticut and its partners, NEEP and LBNL, a State Energy Program (SEP) competitive grant for its Standardized, Sustainable and Transparent EM&V-Integrating New Approaches research. NEEP’s role will be to track the implementation and outcomes of a Connecticut automated



energy savings M&V three-year pilot program. The pilot will examine a new method to measure energy savings in Connecticut's commercial and residential buildings, and will compare a new automated data collection and analysis tool to traditional approaches. Ideally, the new methods will provide a less costly and more timely and accurate approach for verifying energy efficiency benefits, to increase the ability of verifying energy savings so that energy demand reduction can be better quantified as an energy resource.

- **Assisted Rhode Island stakeholders in advancing state appliance standards into 2018:** In addition to creating a Rhode Island-focused factsheet on the 2018 state standards opportunity, NEEP has been fostering and coordinating more deeply 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. In addition to strong participation from R.I. stakeholders at the quarterly working group meeting, we anticipate hosting R.I.-specific discussion and meetings throughout the remainder of the year. Additionally, NEEP and ASAP will be preparing several resources to help educate stakeholders about appliance standards, including a one-page fact sheet.

Regional Market Transformation Strategies

- **Smart water heating discussions gained momentum:** Continuing from NEEP's 2016 [Smart Energy Homes report](#), NEEP advanced the discussion of smart water heating, hosting two topical calls for interested stakeholders. With engagement from water heater manufacturers, researchers, program administrators, and program implementers, the discussion evolved to determine some near-term needs in the smart water heating space, including additional studies.
- **Completed and analyzed a survey to identify stakeholder key barriers to and opportunities for market transformation in commercial efficiency:** NEEP conducted a survey of market actors in the commercial efficiency space to help identify the primary barriers and opportunities for deep retrofits. Survey questions were developed through discussion with market actors, and the survey was shared with a wide range of stakeholders including program administrators, ESCOs, other service providers, financiers, and more.



Promote Resilient, High Performance Buildings & Communities

Provide guidance and technical assistance to support the development of resilient, healthy, high-performance and zero energy buildings and communities at the local and state level.

Events & Stakeholder Engagement

- Hosted the R.I. Zero Energy Buildings Working Group kick-off meeting:** With support from NEEP, the R.I. Office of Energy Resources reengaged the R.I. Zero Energy Buildings Working Group in September to build off National Grid’s *Zero Energy Building Pathway to 2035* report. The report provides strategies to move the state closer to its zero energy targets. The kick-off meeting provided an overview of zero energy buildings, a summary of National Grid’s report, and engaged attendees in breakout group discussions. Discussion subgroups (commercial, public, and residential) focused on developing actionable next steps for how each building type should work toward achievement of their zero energy goals. These subgroups will continue to meet on a quarterly basis.
- Assisted with planning for the National Energy Codes Conference:** NEEP and the other [regional energy efficiency organizations](#) (REEOs) – along with US DOE, PNNL, and BECAP – assisted in the coordination and agenda setting for the [2017 US DOE Energy Codes Conference](#), which took place in Pittsburgh, Penn. from July 17-20. The annual gathering of code advocates covers code development, implementation, compliance, and policy. Specifically, NEEP coordinated and spoke on a panel titled “Scaling up Codes Toward Multifamily Energy Efficiency,” drawing from a [joint REEO multifamily report](#) published last year. We also provided technical assistance in the coordination of a panel on community engagement.
- Conducted a quarterly Energy Code Leadership Group webinar:** Close to 30 regional stakeholders representing state energy code and energy offices, NGOs, US DOE, architects, and engineers joined the webinar, which covered: an update of current [state energy code adoptions](#); regional stretch codes; code adoptions; and an overview of the [2018 International Energy Conservation Code](#).
- Attended the 2017 NASEO Annual Meeting:** At the meeting, NEEP presented on our 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. This provided the opportunity to educate state energy offices and other stakeholders in the audience about HELIX and how it relates to other concurrent projects, such as Energy Metrics to Promote Residential Energy Scorecards in States (EMPRESS), a State Energy Office-led project supported by funding from the US State Energy Program of the US DOE and private-sector partners.
- Held a HELIX Advisory Committee meeting:** NEEP hosts quarterly HELIX advisory committee meetings, with the third-quarter meeting focused on determining which states are interested in

piloting HELIX. This enabled NEEP and our project partners to determine which states have data available to import into HELIX and which states to engage first. The committee provides feedback on essential decisions the HELIX team has to make, such as what types of data they would be interested in importing into HELIX to get it into the Multiple Listing Service (MLS). We are then able to bring this information back to the HELIX team and ensure a database is built that will be relevant and useful to states in the NEEP region.

- **Planned for the November 15 [HELIX Virtual Summit](#):** The HELIX summit is an annual event to engage stakeholders and inform them about the progress of the project. The summit will be hosted virtually to encourage engagement of stakeholders in other regions of the country that may not be able to join in person, and to require less of a time commitment but still provide the same amount of information.
- **Reviewed and added new individuals to the HELIX stakeholder list that receives general updates on the project:** By consistently reviewing and adding to the HELIX stakeholder list, we are able to increase our engagement and outreach efforts, further spreading information about the project.
- **Convened the N.H. High Performance Schools Working Group:** In addition to planning for the 2017 [N.H. High Performance Schools Summit](#), the working group is prioritizing the goal of increasing the number of schools benchmarked in EPA’s Portfolio Manager. Currently, there are only 65 schools in the state of New Hampshire benchmarked in Portfolio Manager. NEEP is engaging key stakeholders including the US EPA to help inform the conversation, which will ultimately lead to more schools across the state benchmarking their buildings. The focus of the next working group meeting will be to create a path forward for the state.
- **Participated in US DOE Home Energy Information Accelerator discussions to provide regional updates related to home energy labeling:** NEEP provided information and a regional perspective, which will be used in a toolkit being developed by the Accelerator. The Accelerator, which will enter into its third and final year in 2018, provides opportunities to learn from other initiatives across the country.

Research, Analysis, Reports, and Case Studies

- **Created and engaged the CAPEE Task Force:** NEEP’s *Community Action Planning for Energy Efficiency (CAPEE)* project is an interactive online platform designed to provide community-level stakeholders with actionable next steps to assist with energy and carbon reduction goals. Currently under development, this online scoping tool is being informed by a task force to ensure that the goals of the project are met. The task force represents varying geographic and organizational perspectives including stakeholders from utilities, regional planning commissions, small towns, mid-size cities, and county-level governments. It has now met twice and is actively engaged in the formation of this project.
- **Conducted research on building energy codes topics including:**
 - 2015 IECC versus 2018 IECC, and ASHRAE 90.1 2013 versus ASHRAE 90.1 2016 – changes and administration of codes;
 - Passive House Standards – US standard versus international standard;

- 2018 IECC Energy Rating Index (ERI) – changes and policy implications; and
- Zero energy buildings – first costs and financing.
- **Developed the governance and operations policy/structure for HELIX:** The HELIX governance team developed the governance and operational policy structure for HELIX for the rest of the DOE project grant period, as well as initial structure for once the grant has ended. This helps determine the database access structure and who the owners may be within the structure. This guidance provides a framework to work within for the rest of the project period and a long-term goal to work toward for the ultimate HELIX structure.
- **Began research on policy and market drivers for states to implement home energy labeling programs:** NEEP is developing 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. The exemplar will highlight the remaining opportunity for the state with HELIX with the inclusion of opt-in/out language in the program and for deep home energy retrofits. This exemplar places HELIX in the bigger picture of residential opportunities for energy savings and will be a part of the Home Energy Information Accelerator through US DOE. It will also be a resource and case study that other states can look to for information about implementing similar programs, and best practices to do so.
- **Conducted research and analysis for development of a benchmarking dashboard:** Upon completion, NEEP’s benchmarking dashboard will become part of the CAPEE project. The dashboard will provide information related to regional building energy benchmarking ordinances, including the number of cities with ordinances and the number of buildings covered by ordinances. It will also provide details on the benefits that cities and states are realizing by enacting these ordinances, including reduced carbon emissions and energy consumption. NEEP is currently collecting information and working on the functionality of this online dashboard that will provide a detailed look at the impact that benchmarking ordinances are having throughout the region.

Technical Assistance and Resource Centers

- **Provided technical assistance to the Town of Hanover, N.H.:** Stemming from discussions at [NEEP’s Strategic Electrification Summit](#), NEEP has engaged with members of the Energy Committee from Town of Hanover, which is in the early stages of establishing energy reduction plans and is seeking guidance on key first steps that should be considered. NEEP provided resources to the town and remains engaged with committee members. The town is also represented on NEEP’s CAPEE task force.
- **Provided resources and technical assistance to the Town of Belmont, Mass.:** Over the course of the past several months, NEEP has engaged with the Town of Belmont regarding the construction of their new high school. Members of the town’s Building Committee are interested in achieving a zero energy building. Providing the town with case studies, presentations, and other materials is helping the committee establish project goals and select an appropriate project team to achieve those goals.



- **Provided the City of Amherst, Mass. with zero energy technical assistance:** In the spring of 2017, NEEP met with an advocacy group encouraging the City of Amherst, Mass. to build the city's new school, library, and Department of Public Works (DPW) building, including a fire station, to zero energy specifications. NEEP has been invited to meet with the Chairperson of the DPW Building Committee as well as to prepare testimony to present to a city-wide "town meeting," where we will present on the cost effectiveness of zero energy buildings in addition to case studies on buildings similar to those Amherst intends to construct.
- **Presented new building codes overview to the Delaware Codes Coalition:** NEEP presented an overview of technical amendments to the latest versions of the [International Energy Conservation Code \(2018 IECC\)](#) and [ASHRAE 90.1-2016](#). The [State of Delaware's Codes Coalition](#) – composed of home builders, energy raters, and policy makers – makes recommendations to the state on code adoption and technical amendments. Delaware, currently on the [2012 IECC](#), is looking to adopt the [2018 IECC](#) and may be the first state in the NEEP region to do so. The state has legislative mandates to achieve zero energy buildings by 2030 and cannot achieve those mandates through adoption of the base code. Our presentation assisted in understanding the differences between the 2015 and 2018 IECC, as well as answered questions regarding new compliance paths for the codes. Following NEEP's presentation, the coalition invited US DOE to present to the state on their [Zero Energy Ready Homes Program](#), which may be a useful resource for technical amendments to the state's 2018 adoption or as a stretch code.
- **Provided technical assistance to the state of Maryland:** The state requested technical assistance regarding the [2015 IECC Energy Rating Index \(ERI\)](#) compliance path as it relates to air changes within a residential structure. Prompted by complaints that homes are too airtight, the state asked if the use of the ERI compliance path changed the base code air change requirements. Since ERI is a scale for the efficiency of a home, it does not change these requirements. However, this question demonstrated that there is still a learning curve that needs to be addressed regarding the relatively new ERI, and NEEP will look to develop tools to address questions for potential users.

Regional Market Transformation Strategies

- **Updated the Northeast Collaborative for High Performance Schools Criteria (NE-CHPS):** NEEP engaged stakeholders to update NE-CHPS and transform the schools market to ensure that all communities are providing healthy, energy efficient learning environments for students. An additional stakeholder meeting is scheduled for the fourth quarter to finalize updates to the acoustics and energy sections of the criteria. Updates to these sections ensure that schools are being put on the pathway to zero energy while also reducing the documentation burden placed on architects.
- **Participated in US DOE's Zero Energy Schools Accelerator:** NEEP is a national partner to the Accelerator, which is focused on developing replicable roadmaps for schools to achieve zero energy performance. NEEP participates in monthly webinars to provide resources, technical assistance, and case studies to the participating states and districts. These partner districts and states agree to develop zero energy plans and commit to construction or renovation projects that result in schools achieving significant energy savings.

- **Completed draft version of a building energy codes market transformation paper:** NEEP’s forthcoming paper, “Market Transformation to a Zero Energy Zero Carbon Region through Energy Codes,” is expected to be published in December 2017. The paper, which will supersede NEEP’s current [Model Progressive Building Energy Codes Policy](#), will provide leading edge market transformation strategies that better position states in the Northeast and Mid-Atlantic to achieve two critical objectives:
 - Advancing building energy code development to enact zero energy buildings codes within the next 15 to 25 years; and
 - Improving the administration of building energy codes to ensure the desired performance.

Strategies to advance code development to zero energy are presented as a way to transform the market over a period of years through supporting market activity and capacity building as well as incremental advances in code.

- **Develop a course curriculum for real estate professionals:** One objective of the HELIX project is to educate and provide outreach to the real estate community to help professionals better understand the relevance of HELIX and the importance of energy information in the real estate market. The course will allow professions to get credits towards their licenses and help create energy efficiency valuation in the market.
- **Created tangible HELIX resources for professionals:** NEEP 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. This resource can be used at events and trainings for real estate professionals and provide an easy-to-understand glimpse into the relevance of HELIX to their work.
- **Tracked regional benchmarking efforts:** NEEP updated its brief, [Building Energy Benchmarking and Disclosure Policies in the Northeast and Mid-Atlantic](#), which provides an overview of benchmarking ordinances throughout the region. The document contains information on the location of ordinances enacted, and more specific information related to square footage thresholds, compliance guidelines, links to benchmarking reports, and more. This resource allows interested stakeholders to get a snapshot of regional benchmarking efforts and their intended impacts.



Share Best Practices to Advance Strategic Electrification & Next Generation Energy Efficiency

Support the region's move to strategic electrification of buildings and transportation – backing out of carbon-based fuels, and pairing deep energy efficiency with distributed renewable power, energy storage and demand response.

Events & Stakeholder Engagement

- **Convened the Strategic Electrification Leadership Committee via webinar:** The webinar, hosted by NEEP on July 26, gathered 30 project stakeholders together to discuss the draft Strategic Electrification Regional Assessment as well as takeaways from the June [Strategic Electrification Summit](#). The Leadership Committee has provided invaluable guidance to NEEP related to this project and key deliverables, and will be an important vehicle to move forward the eventual regional action plan.
- **Presented an overview of the Strategic Electrification project to other NEEP working groups:** This presentation took place during the August 29 in-person meeting of the High Performance Buildings and Communities Working Group, and focused on opportunities for municipalities and communities to advance strategic electrification.
- **Published two blogs about strategic electrification:**
 - [Driving Electrification](#) (republished by the [Zero Energy Project](#)); and
 - [A Regional Approach to Deep Decarbonization](#).
- **Hosted a quarterly meeting of the regional ASHP Working Group:** The ASHP Working Group, whose objective is to effectively implement the strategies included in the [2016 ASHP Market Strategies Report](#), met to discuss regional updates, NEEP's planned 2018 activities, installer guidance materials, and integrated controls.

Research, Analysis, Reports, and Case Studies

- **Began development of a regional Strategic Electrification Action Plan:** As an addendum to the recently published [Northeastern Regional Assessment of Strategic Electrification](#), NEEP has been working to develop a regional action plan for strategic electrification, which will be published in the fourth quarter.



Technical Assistance and Resource Centers

- **Populated NEEP's [Strategic Electrification webpage](#) with new project content:** This included information from the Strategic Electrification Advisory Committee quarterly meeting held on July 26.
- **Disseminated [A Guide to Sizing & Selecting ASHPs in Cold Climates](#) and [A Guide to Installing ASHPs in Cold Climates](#):** These guides provide practical, best practice guidance related to sizing, selecting, and installing ASHPs in cold climates. NEEP had numerous discussions with regional stakeholders to brief them on the purpose and contents of the guides. The guides were downloaded over 500 times in the third quarter.

Regional Market Transformation Strategies

- **Cold Climate ASHP (ccASHP) specifications grew:** The ccASHP [specification and associated list](#) now includes roughly 500 products, for which manufacturers must submit complete applications to NEEP to be listed. The list was downloaded over 300 times in the third quarter, and the specification continues to be used by stakeholders throughout the region including the Massachusetts Clean Energy Center, Efficiency Vermont, New Jersey Clean Energy Program, and NYSEERDA.
- **Participated on a panel on beneficial electrification at a regional event:** NEEP participated on a panel as part of [Rhode Island's Power Sector Transformation Initiative](#) 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, including cases where customers would be switching heating fuels in the process.



Advanced Efficiency Leadership Network

A regional center for learning and sharing best practices and a dashboard of state and local progress on energy efficiency and integrated clean energy solutions. Bringing together thought leaders on policy, programs and market-based solutions, the Advanced Efficiency Leadership Network (AELN) is working to drive progress towards an energy-efficient, resilient, and accessible low-carbon economy.

Events & Stakeholder Engagement

- **Convened a call with ISO New England:** ISO New England (ISO-NE) 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:** By attending the technical hearing, NEEP was able to interact with local stakeholders and gauge their response to the strategies and goals outlined in the strategy and better prepare written comments to the state of Connecticut on their proposed strategy.
- **Attended the 2017 NASEO Annual Meeting:** NEEP attended the event, participating in sessions and engaging with regional state energy offices on state-level activities, learning how the NEEP region compares to the rest of the nation, and developing an understanding of what other regions are tackling and challenges they face.
- **Attended technical sessions in R.I. for the Power Sector Transformation Initiative:** NEEP attended sessions focused on the utility business model, distributed system planning, and beneficial electrification. This provided an opportunity for a deeper dive in the regulatory proceeding and insights into the commission and stakeholder stance on the different work streams.
- **Participated in regional working groups focused on public policy and grid modernization:** The Northeast Clean Energy Council (NECEC) coordinates various working groups that provide opportunities to learn about state and regional policies and initiatives. NECEC also provides testimony and written comments to state policy and regulatory proceedings throughout New England, and by participating in these working groups, we are able to provide expertise and assistance where needed, and NECEC in turn provides a deep dive on policy tracking.

Research, Analysis, Reports, and Case Studies

- **Published a [REED Renderings](#) issue on summer demand savings:** This is 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 [energy storage](#) and “[live from NOLA](#)” on the NEEP blog:** The bi-monthly policy tracker provides updates for regional stakeholders on state-level regulatory and legislative matters. NEEP’s publications link to original documentation as a resource center and provide analysis on advanced efficiency leadership.

Technical Assistance and Resource Centers

- **Provided written public comment on regional policy issues:** NEEP submitted comments to Rhode Island on [strategic electrification](#), [the utility business model and AMI](#), and [distribution system planning](#). These comments were submitted as part of the state’s Power Sector Transformation Initiative and helped inform National Grid and the Public Utility Commission’s decisions on restructuring the utility role. We also submitted [comments](#) on Connecticut’s draft Comprehensive Energy Strategy, highlighting areas where NEEP can provide technical assistance.