

Northeast Energy Efficiency Partnerships

2018 Q3 Report

Events & Stakeholder Engagement

- Hosted a public webinar on <u>Quantifying the Energy Efficiency Value Proposition: Recent Non-Energy Impact Research</u>, which covered cost-effectiveness developments that can help states and program administrators with planning and reporting on energy efficiency programs.
- Published a <u>peer reviewed paper</u> for ACEEE's Summer Study, which laid the foundation for the
 development of NEEP's policy framework for building decarbonization. NEEP presented findings
 from the paper during a strategic electrification policy panel at the conference.
- Hosted the Regional High Performance Buildings and Communities Working Group at the <u>Christa McAuliffe School</u> a high performance facility in N.H. to learn and exchange best practices to build market capacities for high performance buildings and communities across the region.
- Hosted a <u>webinar</u> exploring the 2020 implementation of the general service lighting efficiency standard. Commonly referred to as the Energy Independence and Security Act (EISA) 2020, this is an important appliance standard with the potential to save 140 billion kwh/year by 2025.
- Hosted a private webinar for state energy officials on findings from NEEP's regional assessment of
 data and resources for strategic electrification planning and forecasting. Attendees noted that more
 information about heat pump performance and market conditions would be useful.
- Hosted a private webinar for the M&V 2.0 project state partners to update them on the progress and status of various M&V 2.0 activities.
- Planned for the annual <u>M&V 2.0 Workshop</u>: <u>Evolving the Paradigms of M&V</u>, to be held in Burlington,
 Vt. on November 7, which will explore the potential for M&V 2.0 to support advanced efficiency as the energy industry evolves.
- Worked with Vermont state partners to advance M&V 2.0, including planning for the M&V 2.0
 Vermont State Partner meeting, which is scheduled to dovetail with the annual M&V 2.0 Workshop
 in Vermont on November 7.
- Attended a meeting hosted by the Connecticut Department of Energy & Environmental Protection (CT DEEP), where we served as a technical expert on cost-effectiveness and recommended the National Standard Practice Manual (NSPM) as a framework for the state's efforts in this area.
- Provided comments at the Massachusetts Energy Efficiency Advisory Council (EEAC) meeting, which focused on the second draft of the state's 2019-2021 Energy Efficiency Plan. NEEP's comments focused on new opportunities for energy and demand savings, as well as the incorporation of the Act to Advance Clean Energy from 2018 into the plan.
- Participated in events focused on zero energy buildings (ZEBs) to support the increasing number of
 communities that are establishing aggressive energy reduction goals including zero energy targets.
 These events equip stakeholders with knowledge of the benefits of ZEBs and also influence early
 adopters to create replicable approaches for other communities.
- Convened and facilitated the New Hampshire High Performance Schools Working Group to work toward the ultimate goal of increased participation in utility program offerings and the number of schools in New Hampshire with high performance features.



Events & Stakeholder Engagement

- Hosted a Regional Energy Codes Working Group webinar to discuss the forthcoming 2021
 International Energy Conservation Code (IECC) Development Process, as well as to provide an overview of the status of code adoption throughout the NEEP region.
- Hosted a Pennsylvania Code Collaborative teleconference, which focused on upcoming training
 opportunities for the state's newly adopted 2015 IECC. NEEP shared training links with the group
 and encouraged Collaborative members to share these with their networks.
- Participated in the 2018 US DOE National Energy Codes Conference, which featured two NEEPorganized sessions: one on the challenges and opportunities associated with the Energy Rating
 Index compliance path; the second on unconventional stakeholders in the realm of energy codes,
 including real estate professionals, sustainability directors, and environmental advocates.
- Coordinated the <u>Maine Uniform Building and Energy Code (MUBEC)</u> Working Group, providing technical assistance to update the state's energy code. Maine is three code cycles behind the national energy code, and NEEP is working to ensure that the state updates its outdated code and undertakes initiatives to increase code compliance.
- Presented to a graduate class in energy policy at <u>Vermont Law School</u>'s Institute for Energy and the Environment, where we provided an overview of code development and adoption and discussed stretch codes, zero energy codes, and the legal and regulatory ramifications of above base code adoption.
- Presented on the Home Energy Labeling Information eXchange (HELIX) at the annual meeting of the National Association of State Energy Officials (NASEO) to educate stakeholders about the <u>HELIX</u> <u>database</u> and how it can be used to advance state policies and programs for residential labeling.
- Presented on HELIX during a <u>webinar hosted by Northeast Home Energy Rating System Alliance</u>
 (<u>NEHERS</u>) to educate HERS raters on the benefits of HELIX. The webinar recording is accompanied
 by a 10-question quiz that NEHERS members can take to receive Residential Energy Services
 Network (RESNET) continuing education credits.
- Convened the HELIX Advisory Committee to provide an update on the project and gather input on one-page HELIX resources in development. Engaging this committee helps ensure successful beta testing and development of HELIX across the pilot region.
- Prepared for the third annual <u>HELIX Summit, including completion of the 2018</u> agenda and opening registration. In addition, potential sponsors and exhibitors were identified, a mass email was sent out marketing the Summit, and speakers were confirmed.
- Met with potential HELIX users in Colorado to educate them on use of the tool for various city home energy labeling programs under development. This provided an opportunity to gauge interest outside of the project's pilot region and the potential to expand HELIX's reach.
- Convened the <u>Air-Source Heat Pump (ASHP) Working Group</u>, which serves as the implementation vehicle for NEEP's regional market transformation strategies as outlined in our <u>Northeast/Mid-Atlantic Air-Source Heat Pump Market Strategies Report</u>.



Events & Stakeholder Engagement

- Convened the <u>Home Energy Management Systems (HEMS) Working Group</u>, which was well attended by 33 participants across 30 organizations, including representation from N.Y., Mass., R.I, Vt., Wis., the Midwest Energy Efficiency Alliance (MEEA), the U.S. Environmental Protection Agency (US EPA), the Pacific Northwest National Laboratory (PNNL), and the Northwest Renewable Energy Laboratory (NREL).
- Hosted a webinar for the <u>Strategic Energy Management (SEM) Collaborative</u> to collaborate with policymakers, program administrators, and commercial and industrial energy managers in the Northeast, with the aim of accelerating the adoption of SEM in the commercial and industrial sectors.
- With project partners, began planning for the <u>Northeast SEM Collaborative Workshop</u>, including identifying speakers. The event is scheduled to take place on November 6 in Burlington, Vt.
- Participated in <u>US DOE's 50001 Ready Utility Network Series</u> with other SEM stakeholders to
 interact and learn from each other. The latest series featured Ed Birch of the Strategic Energy Group,
 who provided insights into his use of the 50001 Ready Navigator and recognition program to add
 value for his customers.
- Convened the <u>Appliance Standards Working Group</u> via teleconference to discuss federal standards activities, state standards progress, and recent ENERGY STAR activities.
- Planned for the in-person Appliance Standards Working Group meeting with project partner the
 Appliance Standards Awareness Project (ASAP), including agenda development, material collection,
 and participant recruitment. The October 1 meeting will be held in conjunction with the NEEP_Summit in Middletown, R.I.
- Presented on two panels at the <u>E Source Forum 2018</u> on the opportunities for market transformation to build the levels of high-efficiency products available to consumers, and on the Energy Independence and Security Act (EISA) 2020 rule on lighting and implications for utilities.
- Hosted a public webinar <u>EISA 2020: Bringing Clarity to Uncertainty</u> to explore the facts, myths, and unknowns surrounding the regulation.
- Tracked US DOE action on federal standards, weighing in on the nominations to the Appliance Standards and Rulemaking Federal Advisory Committee (ASRAC), as well as participating in the newly formed <u>ASRAC for VRF Technology</u>.
- Coordinated with efficiency stakeholders on the <u>ENERGY STAR Retail Products Platform program</u> and weighed in on several influential ENERGY STAR specifications including the <u>2019 Most Efficient Criteria</u>, the <u>Residential Air Source Heat Pump/Central AC</u> specification and participated in discussions on <u>Electric Vehicle Service Equipment (EVSE)</u> and the <u>SHEMS</u> efforts.



Research, Analysis, Reports & Case Studies

- Integrated the U.S. Green Building Council's (USGBC) LEED program for homes into <u>HELIX</u>, as
 well as National Green Building Standard data into the database for all pilot states. In addition,
 we imported solar photovoltaics (PV) in Vermont and US DOE Home Energy Score (HES) in Rhode
 Island.
- Published a <u>proposal</u> to create a new version of NEEP's <u>Cold-Climate Air-Source Heat Pump</u>
 (<u>ccASHP</u>) <u>Specification</u> (version 3.0). Eight programs in the region and outside of the region rely on the specification and list as resources to help implement energy efficiency programs.
- Finalized an SEM factsheet and a supporting informational document for NEEP's <u>Community</u>
 Action Planning for Energy Efficiency (CAPEE) tool to educate users of the CAPEE tool on SEM,
 ISO 5001 Standard, <u>US DOE's 50001 Ready Program</u>, and <u>US DOE's 50001 Navigator Tool</u>. The
 resources are specifically targeted to municipalities with water/wastewater (WWW) treatment
 facilities.
- Completed the Regional Electrification Survey and presented the results in a <u>public webinar</u>.
 The research was a regional assessment of data and resources for planning and forecasting for strategic electrification. It identified numerous gaps in data, with particular needs for market intelligence, product performance, and training resources on the topic of heat pumps.
- Published the <u>blog Rapid Feedback</u>: <u>What Makes it Great?</u>. Rapid feedback is enabled by new technology e.g., M&V 2.0 software, smart devices, the Internet of Things, and blockchain and has the capability to facilitate the complicated decisions that are beginning to confront our energy industry.
- Published the <u>quarterly EM&V newsletter</u> on recent EM&V-related products and activities. The newsletter featured information on NSPM-related developments as well as a link to guidance on M&V 2.0 published in Missouri.
- NEEP's Connecticut project partner shared updates on the M&V 2.0 Pilot research in a presentation at the Association of Energy Services Professionals' (AESP) summer conference.
- Completed the report Northeast Regional Energy Efficiency Database, Program and Measure
 Data, which provides documentation of the update process for the Regional Energy Efficiency
 Database (REED). It will be published by the U.S. Energy Information Administration (US EIA) and
 is available from NEEP by request.
- Published the <u>2018 Energy Efficiency Snapshot</u>, <u>which</u> provides an updated look at energy savings from energy efficiency programs, new sections on carbon reduction, and progress achieved through programs implemented by utilities and reported to REED.
- Began development of a schools-specific module for <u>CAPEE</u> to help small- to mid-sized communities navigate the complex and laborious process of building a new school. This resource will enable communities to more readily take on high performance school projects.



Research, Analysis, Reports & Case Studies

- Analyzed absentee data for schools in New Hampshire, Massachusetts, and Rhode Island to
 provide real-world data on the health benefits of high performance schools. This data will be
 incorporated into NEEP's <u>Operations and Maintenance Guide</u> and <u>CAPEE</u> to educate stakeholders
 and increase the number of high performance schools in the region.
- Collaborated with National Grid to release an exemplar on Energy Code Compliance Attribution,
 which outlines how the utility attributes savings to energy code compliance efforts. Attribution
 will allow states to calculate anticipated carbon reduction from code compliance initiatives, and
 the resource will contribute to sharing of best practices for utilities to undertake initiatives to
 increase code compliance.
- Published the blog The Rural Energy Cost Burden, which addresses how utilities and program
 administrators benefit from focusing on increasing rural efficiency within rural communities.
 Rural communities historically have a disproportionately high energy burden due to the types
 of fuels being used, and often do not have access to utility incentive programs and energy
 specialists.
- Updated and enhanced NEEP's <u>Renter's Guide and Checklist</u>, which assists potential rental
 property seekers to determine the efficiency of a property they are considering. Additionally, NEEP
 published <u>a blog</u> to highlight the update.
- Continued research and development of the Building Energy Benchmarking Dashboard, which
 will provide a graphical representation of the impacts that benchmarking efforts are having
 throughout the region. This resource will spur others to enact ordinances to measure building
 energy usage, and take action leading to overall reduced energy consumption.
- Began research on a new HELIX business model to ensure that HELIX has a revenue model
 and is self-sufficient following the end of US DOE funding for the project. Research included a
 questionnaire to guide conversations with state energy offices to collect data on the types of
 services that would be most valuable and of interest to have in the business model.
- Developed a <u>one pager</u> to highlight how cities can use <u>HELIX</u> as a solution for populating real
 estate listings with home energy information when implementing a city ordinance or policy. It will
 inform a communication strategy to accelerate the adoption of home energy labeling.
- Completed research on integrating the smart home with strategic electrification and distributed energy resources to inform a forthcoming whitepaper focused on how the smart energy home can drive residential building decarbonization.
- Co-authored an ACEEE Summer Study paper, The Air Source Heat Pump's Transformative Potential, focused on the opportunity that air-source heat pumps present for the advancement of energy efficiency.



Research, Analysis, Reports & Case Studies

- Conducted market research on variable refrigerant flow (VRF) technology to inform a Regional VRF Market Transformation Strategy Report that will summarize the VRF market, technology, best practice program design, and regulatory elements to support the accelerated adoption of VRF heat pump technology in regional energy efficiency programs.
- Created informational resources on state standards opportunities with project partner ASAP. The fact sheets will include key information about state-level appliance standards.



Technical Assistance & Resource Centers

- Disseminated <u>building energy code resources</u> and provided technical assistance that led to the
 progression of code adoption, code compliance, and the refinement of regulatory processes in six
 states. Through this work, we address our long-term goal of decarbonization of the electric grid,
 energy reduction in existing buildings, and zero energy code adoption.
- Provided <u>written comments</u> on Maine's draft Triennial Plan IV, highlighting the relevant environmental and energy policies that should be considered when developing the plan and evaluating cost-effectiveness.
- Submitted a <u>comment letter</u> to the Connecticut Energy Efficiency Board (EEB) to provide input on what should be included in the state's 2019-2021 Conservation and Load Management (C&LM) Plan and key issues to consider when drafting the plan.
- Provided <u>written comments</u> on the New Efficiency: New York publication in response to the New York Governor's announcement of the 2025 energy savings target. The comments focused on methods to achieve deeper savings, cost-effectiveness, and building codes and standards.
- Submitted a <u>comment letter</u> to the Massachusetts Energy Efficiency Advisory Council (EEAC) about different aspects of the state's 2019-2021 energy efficiency plan.
- Published two Policy Trackers for <u>July</u> and <u>September to</u> communicate the most recent policy developments and trends from the region to NEEP stakeholders.
- <u>Published REED Rendering</u> #10, focused on funding mechanisms for energy efficiency programs, and to help stimulate thinking about the ability of current mechanisms to address states' goals, or determine if new innovative approaches are needed.
- Engaged with the Rhode Island Office of Energy Resources (RI OER) to support efforts on regulations pertaining to high performance school construction. Ultimately, the goal of this work is to maintain Rhode Island as a leader in high performance school development.
- Provided technical assistance to the Massachusetts IECC & Municipalities Working Group, with
 the goal sign up as many eligible voters as possible to participate in the 2021 IECC development
 process to ensure at least a 20% increase in energy efficiency for the forthcoming version of the
 energy code.
- Provided technical assistance to the <u>Delaware Codes Coalition</u>, which is in the process of adopting the <u>2018 IECC</u>. The state may also incorporate beyond-code provisions directly into the base code or possibly enact a stretch code.
- Provided technical assistance in Maryland which is in the process of adopting the 2018 IECC –
 related to diagnostic testing requirements of the code. NEEP also reviewed formal code change
 proposals and collaborated with the <u>Responsible Energy Codes Alliance (RECA)</u> to propose
 compromise measures to proposed weakening amendments.



Technical Assistance & Resource Centers

- Participated in Vermont's latest code adoption, where the <u>Vermont Department of Public Service</u>
 (VT PSD) is currently crafting a draft version of their anticipated 2018 IECC. The 2018 energy
 code will be at least ten percent more efficient than the national model base code.
- Provided technical assistance in New Hampshire, which is considering adoption of new residential and commercial codes. NEEP provided the <u>New Hampshire Department of</u> <u>Environmental Services (NH DES)</u> with resources, case studies, and technical information to inform the process.
- Updated NEEP's <u>best practice guides for sizing</u>, <u>selecting</u>, <u>and installing ASHPs in cold climates</u>.
 The existing guides will be supplemented with a new consumer-facing two-page resource on ASHP Owner Best Practices to help ensure that ASHP owners are getting the most out of their systems. We also began planning for the development of video versions of the Installer Guides.
- Informed the development of next generation rating methods for ASHPs through an effort facilitated by ACEEE. We contributed insights into the benefits of a new test/rating method being developed by CSA as a potential model from which to start.
- Worked with stakeholders throughout the region to advance the collective understanding of and commitment to state-level appliance standards, hosting discussions related to appliance standards efforts in R.I., Mass., Vt., N.Y., Conn., and D.C., and continuing outreach to N.J.
- Updated NEEP's <u>Strategic Electrification Project Resource Catalogue</u>, <u>which</u> compiles a number
 of resources and proceedings relevant to strategic electrification into a single resource for
 stakeholders to track the latest research, analysis, and policy venues.



Regional Market Transformation Strategies

- Presented findings from NEEP's <u>Action Plan to Accelerate Strategic Electrification in the Northeast</u>, which provides a series of action areas that key regional stakeholders can take in order to move strategic electrification forward over the next three to five years.
- Hosted a <u>public webinar on strategic electrification</u> to present findings from NEEP's regional assessment of data and resources for planning and forecasting for strategic electrification.
- Updated the <u>Northeast Collaborative for High Performance Schools (NE-CHPS) Criteria</u> to improve the sections on energy and acoustics and ensure that the requirements set forth are stringent but also to reduce the documentation burden for communities leading to more schools utilizing NE-CHPS.
- NEEP's <u>ccASHP products list</u> continued to grow. At the end of the quarter, it included over 1,300 products and has been downloaded over 11,527 times thus far in 2018.
- Drove market transformation through partnership with <u>ENERGY STAR's Smart Home Energy</u>
 <u>Management Systems (SHEMS) program</u>, where NEEP co-chairs a workgroup focused on
 integration with distributed energy resources (DER) and demand response.
- Conducted a market assessment of VRF technology to inform development of a Regional VRF Market Transformation Strategy Report to bring together key market information and regional strategies. With the report, NEEP intends to fill important VRF market gaps, identify key barriers and opportunities to leverage for greater VRF adoption, and identify strategies to overcome barriers.



Q3 Web Metrics

Q3 2017 Unique Visitors

14,334

Q3 2018 Unique Visitors

18,633

Q2 2017 Page Views

43,960

Q2 2018 Page Views

54,628^(24%)

Inbound Traffic

Organic Search

Traffic sourced without the use of paid advertisements.

Direct

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

Referral

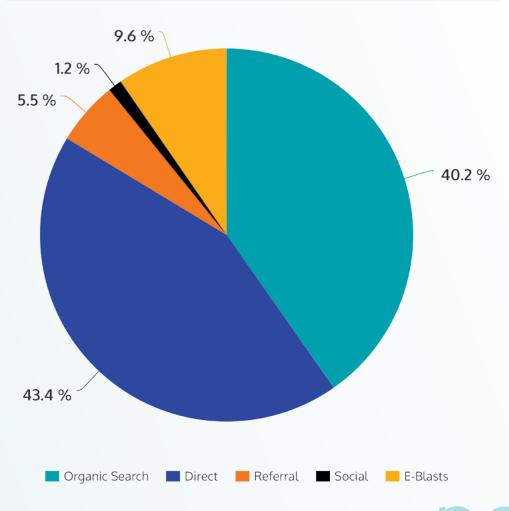
Traffic originating from another website.

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 2017 Total Downloads

Q3 2018 Total Downloads

8.341

8,903









Top Blogs

- 1. Codes, Cryptids, and Creatures
- 2. Winter-proof Heat Pumps
- 3. What is ASHRAE 90.2?
- 4. Renters Checklist: An Informed Choice
- 5. Winter's Hottest Green Living Trend

Top Downloads

- 1. ccASHP Manufacturer Application
- 2. ccASHP Spec Listing
- 3. ccASHP Spec Proposed Revisions
- 4. ccASHP Installers Guide
- 5. Mid-Atlantic TRM v7

Top Media Hits

AESP Magazine (July 1, 2018) - Can We "Electrify Everything" To Meet Climate Goals?

Mintz Levin Blog (July 23, 2018) - The Four Things You Need To Know About The Future of Energy Efficiency

Clean Energy Finance Forum (August 21, 2018) - Northeastern States Map the Challenges of Electrification

Warm Home Cool Planet (August 24, 2018) - Getting Ready to Rent an Apartment? Use This Renter's Checklist to Make an Informed Choice!

GreenBiz (August 30, 2018) - Northeastern states map the challenges of electrification

GreenTech Media (September 19, 2018) - Experts Discuss the Biggest Barriers Holding Back Building Electrification

RTO Insider (October 4, 2018) - Overheard at 2018 NEEP Summit



Q3 Web Metrics



22 NEW USERS PER DAY



14%

SESSIONS



48% OUTSIDE REGION

TRAFFIC

Leaders By State

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

Leaders By City

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

Top Cities in Massachusetts

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

