

Northeast Energy Efficiency Partnerships

2018 Q1 Report

Events & Stakeholder Engagement

- Hosted a public webinar on <u>Tools, Data, and Trends Towards Advance M&V</u> with over 100 in attendance and featuring six speakers.
- Prepared for the <u>Renewable Heating and Cooling Workshop</u>, to be held in Saratoga Springs, N.Y. on June 18-19, co-hosted by the Renewable Thermal Alliance.
- Prepared for the <u>EM&V Annual Public Meeting</u> held on May 8 in Nashua, N.H. to work through the most critical evaluation considerations related to the evolving industry.
- Facilitated national and regional collaboration via two sessions at the <u>National AESP Conference</u>, moderating a session on Demand Reduction Demand Response Pilot Programs and Preliminary Results, and facilitating a panel discussion on Residential Whole Building Metering.
- Presented at the International Energy Agency's workshop on the <u>multiple benefits of energy</u> <u>efficiency</u>, participating on a panel for policymakers on what is needed to bring non-energy impacts (NEIs) into cost-effectiveness testing.
- Engaged with state energy efficiency boards and councils to stay updated on legislative and regulatory policy happenings, including New York's Clean Energy Organizations Collaborative, Maryland Energy Efficiency Advocates, and the Massachusetts Global Warming Solutions Group.
- Engaged with other regional energy efficiency organizations (REEOs) and the California Efficiency + Demand Management Council to identify areas of common interest among the REEOs' policy work to provide assistance and share resources.
- Convened the Regional High Performance Buildings Leadership Group at a webinar on March 28 to highlight our new Community Action Planning for Energy Efficiency (<u>CAPEE</u>) tool, which officially launched two days later on March 30.
- Presented at the National Governor's Association Leading by Example Workshop, which focused on the challenges and opportunities that states face when rolling out building energy benchmarking programs across portfolios of state-owned facilities.
- Presented at the Northern New England Facilities Masters Conference, a gathering of regional school facilities directors and business administrators, to discuss topics included using energy benchmarking data to justify projects and the latest technologies schools are deploying.
- Presented "Zero Energy Buildings and the Leading Role of Municipalities in Creating the Energy Landscape of the Future" to the city of Amherst, Mass., which recently passed <u>bylaws</u> that require new municipal buildings to be zero energy and that the city be zero energy by 2050.
- Hosted a Regional Building Energy Codes Working Group Webinar & Code Compliance Attribution Webinar to discuss best practices and lessons learned from code compliance enhancement programs in those states.
- Facilitated the Pennsylvania Energy Code Collaborative Meeting, which focused on revising the <u>Roadmap to 100% Code Compliance by 2020</u> to focus on 2018 initiatives.

Events & Stakeholder Engagement

- Engaged the Home Energy Labeling Information Exchange (HELIX) Advisory Committee during a quarterly meeting to gather input during the development and deployment of <u>HELIX</u>.
- Engaged with the National Association of Realtors to gather input and/or ideas for the communication plan of HELIX to real estate professionals, including content for one-page informational resources in development.
- Held a meeting with the Massachusetts Department of Environmental Resources (MA DOER) to ensure that HELIX is compatible with the data format that Mass. uses for its pilot program.
- Met with the New England Real Estate Network (NEREN) to discuss the export functionality of HELIX. The application programming interface (API) export format and approach was approved by NEREN, which covers all of the New England states as a multiple listing service (MLS).
- Convened our first regional Air-Source Heat Pump (ASHP) Working Group meeting of the year, focused on important strategies to advance ASHP technologies being implemented across the region and how these strategies can be more effectively leveraged by the regional market.
- Convened the first Home Energy Management Systems (HEMS) Working Group meeting of the year, attended by 35 participants representing organizations and states from around the region, as well as the US DOE, US EPA, and the National Renewable Energy Laboratory (NREL).
- Organized Smart Home content for the <u>HPC National Conference</u>, developing a nine-session track and happy hour focused on the subject and presenting in two of the sessions on our recent brief on <u>smart home resources for contractors</u>.
- Hosted the <u>Northeast Regional Research and Development (R&D) Connector Workshop</u> to explore opportunities for collaboration among R&D organizations in the Northeast region that aim to bring advanced energy efficiency technologies to market.
- Convened a webinar for the Strategic Energy Management (SEM) Collaborative to provide a platform for collaboration with the objective to accelerate the adoption of SEM in the commercial and industrial sectors.
- Supported development of a North American SEM Collaborative, contributing to a Governance Sub-Committee charged with scoping the governance structure for a new national collaborative aimed at driving adoption and improving effectiveness of SEM.
- Participated in a variable refrigerant flow (VRF) stakeholder event hosted by the Massachusetts Clean Energy Center (MassCEC) to learn about the progress that MassCEC is currently making with their VRF incentive programs aimed at accelerating the adoption of VRF in Massachusetts.
- Hosted the first Appliance Standards Working Group meeting of the year, with 22 in attendance representing states from across the region, as well as a national perspectives from the Appliance Standards Awareness Project (ASAP).

Events & Stakeholder Engagement

- Began planning for an in-person meeting of the Appliance Standards Working Group to be cohosted by NEEP and ASAP to strategize for moving forward state standards. The meeting will take place on October 1 in conjunction with the <u>NEEP Summit</u> in Middletown, R.I.
- Presented findings from our <u>Northeastern Regional Assessment of Strategic Electrification report</u> at the Environmental Business Council of New England's Energy Resources Program, <u>Renewable</u> <u>Thermal Meeting</u>.

Research, Analysis, Reports & Case Studies

- Data for program year 2016 was published to the <u>Regional Energy Efficiency Database (REED)</u> along with supporting state information, including utility energy efficiency savings information for Mass., RI, CT, NH, ME, VT, NY, MD, DE, and D.C.
- Finalized the planning phase of our new pilot activity to drive the use of <u>DOE's 50001 Ready</u> <u>Program</u>, engaging a number of key stakeholders including energy efficiency program administrators, SEM implementation vendors, and those in the municipal water sector.
- Continued research on efficiency program measure impacts focused on collection of measurespecific, cost-effectiveness inputs from representative large utilities, as well as on regional trends in lighting program impacts examined by ISO New England (ISO-NE).
- Submitted a proposal to support regional stakeholder engagement targeting advances in costeffectiveness and NEIs. This effort builds on previous NEEP research and will supplement E4TheFuture's activities to build adoption of the <u>National Standard Practice Manual</u>.
- Continued research on M&V 2.0 with Connecticut and state partners funded by US DOE. The current focus is on conducting a pilot of commercial advanced M&V tools compared to traditional M&V approaches, to be followed later by a residential pilot.
- Published two policy trackers in <u>January and March</u> to highlight the latest trends in legislative and regulatory proceedings and put a regional pulse on policy.
- Published a <u>REED Renderings</u> issue as part of a series of blogs on trends that we see in the data and the stories behind those trends. The latest issue focused on the 2016 <u>REED</u> data for 10 states and the results of their 2016 energy efficiency programs.
- Developed new exemplars on high performance schools for <u>Morton Middle School</u> (Fall River, Mass.), <u>Wells High School</u> (Wells, Me.), and <u>Mill Brook Primary School</u> (Concord, NH) to showcase the benefits that these schools have on students, staff, and entire communities.
- The Northeast Sustainable Energy Association's (NESEA) Building Energy Magazine ran a <u>feature article on stretch codes</u> as a high-impact strategy to achieve energy savings. NEEP peer reviewed and, as a recognized leader on the topic of stretch codes, was quoted in the article.
- Attended a Pennsylvania Review & Advisory Committee (RAC) meeting to compile research around the public comments submitted during the RAC 2015 International Code Council (ICC) rereview process, which informed how we communicate about energy codes within the state.
- Published a <u>blog</u> to delve into NEEPs latest code paper, <u>Buildings Energy Codes for a Carbon</u> <u>Constrained Era</u>, which draws parallels between codes, carbon reduction, and climate change, and presents a roadmap to zero energy codes in the region by 2040.

Research, Analysis, Reports & Case Studies

- Analyzed data for an update to NEEP's paper, <u>Construction Codes in the Northeast: Myths &</u> <u>Realities</u>. Construction permit data is being analyzed to determine patterns related to energy code adoption and compliance in the residential and commercial building sectors.
- Published an <u>exemplar</u> on Connecticut's Home Energy Solutions program and its connection to HELIX to highlight the relevance of home energy labeling in achieving energy efficiency goals in the residential sector.
- Beta tested the HELIX access structure of owners, members, and viewers for organizations and sub organizations within HELIX. This ensured that the permissions for each user type was set up correctly and that the operational policies were functional.
- Began research on integrating the smart home with strategic electrification and distributed energy resources. A final report on research findings is expected later in the year.
- Began development of a paper focused on ASHP for the American Council for an Energy-Efficient Economy (ACEEE) focused on the opportunity that air-source heat pumps present for the U.S. for the advancement of energy efficiency.
- Began drafting the Regional R&D Connector Report as a follow-up to the <u>R&D Connector</u> workshop, which takes the reader through NEEP's journey toward achieving the objectives of the Northeast Regional R&D Connector project.
- Together with ASAP, created informational resources on state appliance standards opportunities for RI, MA, and VT.

Technical Assistance & Resource Centers

- Finalized and launched the <u>Community Action Planning for Energy Efficiency (CAPEE)</u> tool designed to help small- to mid-sized and rural communities plan and prioritize projects targeting energy and carbon reductions. CAPEE is meant to overcome challenges faced by communities preventing them from implementing energy saving projects.
- Provided technical assistance to Rhode Island to update its <u>commercial</u> stretch code and promulgate a <u>residential</u> stretch code. The statewide adoption of these voluntary codes became effective in February 2018 and will assist the state to reduce greenhouse gas emissions by 80% below 1990 levels by 2050.
- The <u>Home Energy Labeling Information Exchange (HELIX)</u> database went live and is ready for full implementation of the pilot in seven states. The database will be capable of automatically populating real estate listings with home energy information from Home Energy Score and other sources when it is available and approved by the seller.
- States in the Northeast and Mid-Atlantic are eager to pick up the efficiency lost through federal inaction on appliance standards, and NEEP has been working with stakeholders throughout the region to advance the collective understanding of and commitment to appliance standards.
- Began updates of the <u>Mid-Atlantic Technical Reference Manual (TRM)</u> to version 8, finalizing the list of efficiency measures to address (modify or add) and launching research.
- Proposed technical assistance to N.H. stakeholders on the subjects of EM&V and costeffectiveness.
- Participated in Future Grid Coalition Committee meetings reviewing emerging guidance such as products developed by <u>CalTRACK</u>. The group collaborates on development of best practices related to use of M&V 2.0 software for building analysis and program evaluation.
- Provided resources and information to the Natural Resources Defense Council (NRDC) to be used during the development of a comprehensive energy efficiency plan for New York.
- Participated in the N.H. Energy Efficiency & Sustainable Energy (EESE) Board Energy Efficiency Resource Standard (EERS) Working Group, where discussions focused on development of proposals for possible technical assistance to the Cost-Effectiveness Working Group.
- Updated our <u>online policy tracking tool</u> to include 2018 policies using PowerSuite for automatic policy updates, which ensures the resource center is as accurate as possible.
- Provided technical assistance to Rhode Island, working with the state's zero energy public buildings working group focused on breaking down barriers that prohibit ZEBs. The group will be hosting an educational event series to help remove the negative stigmas surrounding ZEBs.

Technical Assistance & Resource Centers

- Convened the Rhode Island High Performance Schools Working Group to design and disseminate a stakeholder survey. The purpose of the survey is to gain a better understanding of the opportunities and needs of school stakeholders to help inform efforts moving forward.
- Convened the New Hampshire High Performance Schools Working Group to develop a plan to increase the number of schools benchmarking their energy usage. NEEP is also providing technical assistance to help set Energy Use Intensity (EUI) targets for schools in New Hampshire.
- Provided comments on proposed adoptions of the <u>International Energy Conservation Code</u> (IECC) in Connecticut and Pennsylvania, which are both considering adoption of the <u>2015 IECC</u>, which is roughly 15 percent more efficient than the 2009 IECC.
- Provided technical assistance to the <u>Delaware Codes Coalition</u>, which is in the process of adopting the <u>2018 IECC</u>. The state is requiring residential buildings to be zero energy capable by 2025 and commercial buildings by 2030.
- Provided technical assistance to New Hampshire, where they are considering adoption of new residential and commercial codes. The state also has several pieces of energy-related legislation that would establish various committees to study energy codes and energy code compliance.
- Provided technical assistance and guidance to the city of South Portland, Maine to assist with implementation of their new benchmarking ordinance. This included creation of a benchmarking <u>How-to-Comply Guide</u> and fact sheets on green leasing and turning data into action.
- Supported New Hampshire to increase the number of benchmarked schools, working with the state's Department of Education to collect energy use data using the U.S. Environmental Protection Agency's (US EPA) Portfolio Manager.
- Assisted Rhode Island to meet the goals highlighted in the state's <u>Zero Energy Building Pathway</u> to 2035 whitepaper, one of which is to make energy consumption data more accessible and understood. Information collected through building energy benchmarking will be used to guide the development of policies and programs that support the advancement of zero energy buildings in the state.
- Provided technical assistance in Connecticut and Rhode Island on home energy labeling and data/privacy concerns. We assisted Conn. in adding opt-out language to the Home Energy Score program which enables data to be shared with HELIX, and helped National Grid-Rhode Island with the language used in the opt-in form for the Home Energy Score pilot program.
- Made strategic updates to the <u>HEMS landing page</u> to make information more accessible and more clearly connected to other regional priorities. Additionally, we completed an update to the <u>online products list of smart energy home devices</u>.

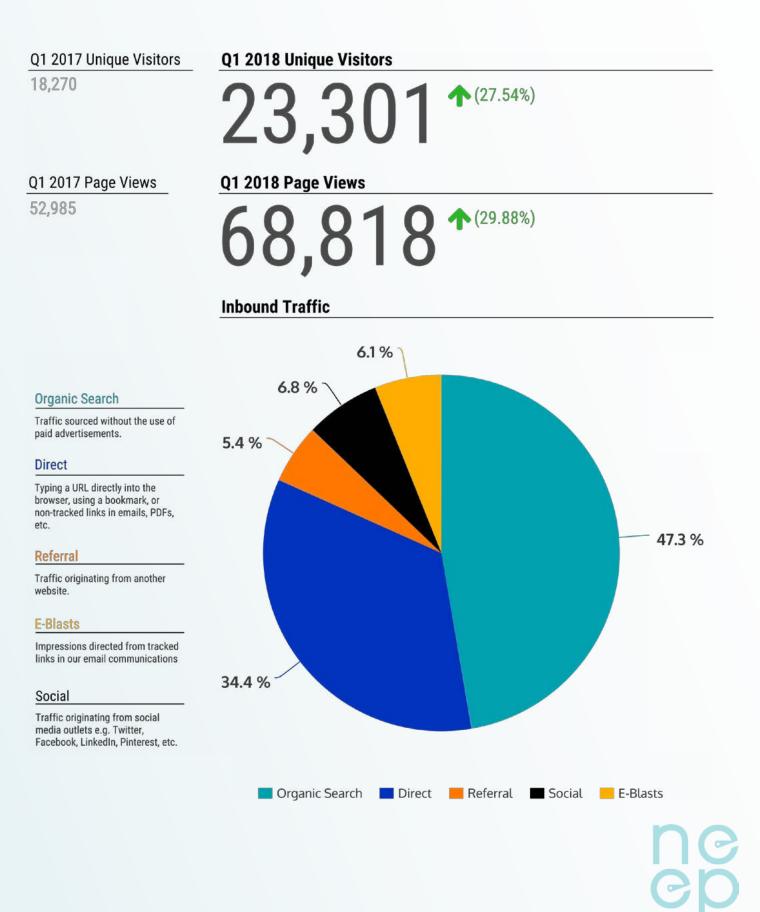
Technical Assistance & Resource Centers

- Began improvements to our <u>best practice guides for sizing, selecting, and installing ASHPs in</u> <u>cold climates</u>. To inform the updates, we developed a survey to circulate to stakeholders, which will be distributed in Q2. The two guides have been downloaded over 3,000 times.
- Engaged stakeholder networks to drive awareness and usage of NEEP's ASHP installer guides. Events presented at included Efficiency Vermont's Better Buildings by Design Conference, the Home Performance Coalition's Regional Conference, and NESEA's Build Boston Conference.
- NEEP and partners informed a pilot to study the effectiveness of various ASHP control technologies/strategies to maximize the use of ductless heat pumps. Development of integrated control systems that can manage the operation of ductless heat pumps in concert with other heating systems is a key strategy area for NEEP's ASHP Initiative.
- Attended a stakeholder meeting facilitated by ACEEE to discuss the development of a new rating method for ASHPs. The group includes efficiency advocates and manufacturers and NEEP brought perspective gained through management of <u>our ccASHP specification</u>.
- Worked closely with a variety of Rhode Island stakeholders to build awareness understanding of appliance standards through education and technical assistance, including preparing a fact sheet to provide more information on the potential impacts of a standards bill being considered.
- Provided expertise on strategic electrification to partner organizations across the country, including the Western Electricity Coordinating Council, Sierra Club, and the Rocky Mountain Institute.

Regional Market Transformation Strategies

- Published the <u>Action Plan to Accelerate Strategic Electrification in the Northeast</u>, which maps out an initial pathway forward, focusing on near-term (next five years) actions to more aggressively move strategic electrification forward in the Northeast.
- Received US DOE funding for research on regionally available data to inform strategic electrification energy planning, and following the approval of the scope of work and funding, completed contracting arrangements with Synapse Energy Economics.
- Began updates to the Northeast Collaborative for High Performance Schools (NE-CHPS) Criteria to enhance the energy and acoustics sections. Updates to the energy section will ensure the latest energy code updates are reflected to drive schools to lower overall energy consumption.
- Invited to serve on the <u>Pioneer Valley Planning Commission</u> Pioneer Valley Climate Action and Clean Energy Advisory Committee to revise and assist in the implementation of the <u>Pioneer Valley</u> <u>Climate Action and Clean Energy Plan</u> for Western Massachusetts.
- Finalized beta testing of the data import functionality for HELIX to ensure a smooth import function. The database is also equipped with a default set of standard green certifications and can be expanded to include state- or local-level certifications.
- Began updates to our <u>cold-climate air-source heat pump specification</u>, a process that will include an opportunity for public, stakeholder review and comment before any changes to the specification are finalized.
- NEEP's <u>ccASHP products list</u> continued to grow, now including over 900 products and with seven leading programs having adopted the specification and products list as part of their qualification for incentives.
- Began a market assessment of variable refrigerant flow technology. This research includes characterization of the supply chain, market size, applications, potential savings, relevant metrics, market barriers, technology barriers, and current interventions.
- Hosted a webinar on opportunities for SEM in the municipal water sector, presenting findings from our forthcoming report, which will identify opportunities and provide recommendations related to driving use of SEM in municipal water-sector facilities.
- Worked with our regional Appliance Standards Working Group to respond to two US DOE Requests for Information – one on updating <u>DOE's Process Rules</u> for the appliance standards program and the other regarding incorporating additional flexibility into <u>DOE's approach for</u> <u>setting standards levels</u>.
- Coordinated with other efficiency stakeholders to contribute to the continued success and funding of the ENERGY STAR program through efforts led by the Alliance to Save Energy and the Retail Products Platform. NEEP also coordinated with regional stakeholders to create a letter regarding <u>ENERGY STAR's Request for Information</u> on potential process improvements.

Q1 Web Metrics



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Q1 2017 Total Downloads

6,108

Q1 2018 Total Downloads

13,024 (169.88%)







Top Blogs

- 1. Policy Tracker March 2018
- 2. Looking For Winter-Proof Heat Pumps?
- 3. A Look Inside NWA Projects & Policies
- 4. Winter's Hottest Green Living Trend
- 5. Hot Strategies For Cold Climates (ccASHP)

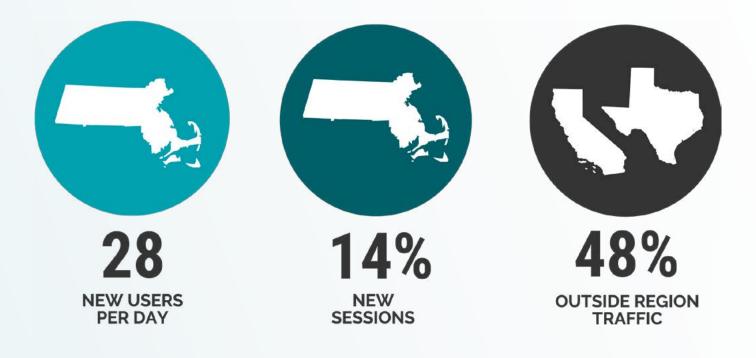
Top Media Hits

<u>NFMT Conference</u> (February 21, 2018) – NFMT Conference Partners release <u>Zondits</u> (March 20, 2018) – Women Energizing an Industry <u>Utility Dive</u> (April 19, 2018) – EPRI assesses expanding US electrification

Top Downloads

- 1. ccASHP Spec Listing (02/15/18)
- 2. ccASHP Spec Application
- 3. ccASHP Installers Guide
- 4. ccASHP Sizing & Selecting Guide
- 5. ccASHP Specification Listing 12/20/17

Q1 Web Metrics



Leaders By State

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

Leaders By City

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

Top Cities in Massachusetts

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