



2019 Quarter-One Report

Advanced Evaluation, Measurement & Verification

Mission: Projects, research, and technical assistance to advance understanding and standardization of information and approaches needed to plan, forecast and assess energy resource value and impacts.

Advanced EM&V, Forecasting & Planning Solutions

Long-Term Market Transformation Goals

- By 2025, all Northeast states adopt resource evaluation practices that reflect the full energy and non-energy impact and value of demand-side resources to meet public policy goals.
- By 2025, all Northeast states adopt program metrics and EM&V for demand-side resource programs that reflect total building energy efficiency performance as well as carbon efficiency.
- By 2025, all Northeast states use M&V 2.0 to assess demand-side resource impacts, and to optimize programs to serve customer as well as grid needs for energy reliability, flexibility and affordability.

The first quarter of 2019 saw the continuation of state partner and regional deliberations and information sharing in support of the above goals. This included:

- State partners Connecticut and New Hampshire convened discussions on energy valuation adhering to principles established as part of national cost-effectiveness framework guidance.
- An Interactive webinar was convened with Connecticut, New York, New Hampshire, Vermont, Delaware, and Pennsylvania partners to share information on the status of states' and program administrators' interest and experience with M&V 2.0 and related energy efficiency program designs.
- Planned for the [EM&V Annual Public Meeting](#), which will focus on metrics, EM&V tools, and evaluation practices available and needed to align with the region's public policy goals.
- Completed a draft brief on indicators within the region of readiness to use M&V 2.0.
- Began facilitation of planning for workshops with state partners in Rhode Island, New Hampshire, and New York to explore M&V 2.0.
- Worked with Connecticut utilities and the Connecticut Department of Energy and Environmental Protection (CT DEEP) on planning for a residential Advanced M&V 2.0 pilot
- Submitted grant proposals seeking support for research on New York and Massachusetts end-use loadshape needs assessment.
- Provided input and facilitation of stakeholder engagement on ISO New England (ISO-NE) Forward Capacity Market M&V issues.

Progress Toward 2019 Advanced EM&V Outcomes	25%	50%	75%	100%
Outcome: Three additional Northeast states include non-energy impacts of energy efficiency in their cost-effectiveness and evaluation frameworks.				



<p>Progress: Ongoing discussions in Connecticut include reviewing the National Standard Practice Manual (NSPM) framework to include non-energy impacts (NEIs) in the 2020 update to the state’s Conservation & Load Management Plan. We are also facilitating this process in New Hampshire through engagement with the N.H. Public Utilities Commission’s Benefit-Cost and EM&V working groups.</p>				
<p>Outcome: Five Northeast states contribute to NEEP’s development of a regional M&V 2.0 best practices manual to evaluate efficiency programs, optimize efficiency programs and customer service, and support home and building energy benchmarking.</p> <p>Progress: Penn., R.I., N.H., Conn., Vt., N.Y., and Del. participated in a State Partner webinar to give reports on the status of and interest in M&V 2.0 in their respective states. Working group members will be joining a subcommittee to assist in scoping and review of a regional manual on the topic.</p>				
<p>Outcome: Two Northeast states adopt program metrics and EM&V for demand-side resource programs that reflect total building energy efficiency performance as well as carbon efficiency.</p> <p>Progress: Pay for Performance energy efficiency programs, which reflect total building energy efficiency performance, are currently deployed in N.Y., Vt., and D.C. States planning on delivering “energy optimization” programs include Vt., Mass., and N.H.</p>				
<p>Outcome: Six Northeast states participate in the prioritization of loadshape and planning/forecasting information needs for the region to address strategic electrification and advanced efficiency.</p> <p>Progress: Per NEEP’s initiative, the Vermont Energy Investment Corporation (VEIC) was invited to join the Technical Advisory Group (TAG) for the national loadshape project to develop an end-use loadshape library. The New York State Energy Research and Development Authority (NYSERDA) is also a member of the TAG. NEEP participated in the TAG’s March 2019 meeting to represent the Northeast and Mid-Atlantic region. The national end-use loadshape project gained visibility in the Northeast thanks to Forward Capacity Market stakeholder discussions, ISO-NE’s Demand Resources Working Group presentations, and as an agenda item to be included in NEEP’s EM&V annual meeting. Additional regional engagement is expected with NEEP leadership, pending grant proposals submitted to NYSERDA and AmplifyMass.</p>				



Air Source Heat Pumps and Smart Controls

Mission: Accelerating market adoption of high-efficiency residential and commercial air source heat pumps, smart controls and services with thermal efficiency improvements that provide deep energy savings and carbon reduction while enabling real-time load management to support efficient, reliable grid operation.

**Air Source Heat Pumps and Smart Controls
Long-Term Market Transformation Goals**

- By 2030, 40% of Northeast homes use high performance ASHPs for heating.
- By 2030, 50% of Northeast homes are “energy smart” with at least two “energy smart” systems (HVAC, water heating, plug loads).
- By 2030, 80% of Northeast homes with high performance ASHPs are retrofitted to improve thermal efficiency performance.

NEEP made significant changes to the structure and funding model of the Air Source Heat Pump (ASHP) and Smart Controls initiative for 2019. The initiative now includes a new stakeholder subscription program as well as a new manufacturer product listing fee program. These shifts will bring further financial investment into the initiative as well as raise the level of stakeholder engagement. We believe these shifts are important to ensure the long-term health of the regional market transformation initiative and thus support our efforts to drive accelerated adoption of ASHPs in the region. Changes were also planned for NEEP’s [Cold-climate ASHP \(ccASHP\) Product List](#). By the end of Q1, NEEP was in the final stages of website development to migrate the excel-based list to a more user friendly, web-based format. Progress in gaining program support for the product list is evidenced by the increase in regional programs now leveraging the ccASHP product list (now nine programs). Program use of the product list ensures that consumers are installing high performance ASHPs that not only achieve savings but ensure customer satisfaction, which is crucial to long-term market transformation.

Progress Toward 2019 ASHPs & Smart Controls Outcomes	25%	50%	75%	100%
<p>Outcome: Program and/or policies referencing NEEP’s ccASHP specification increases from seven to 10 states and provinces in the Northeast U.S. and Canada.</p> <p>Progress: With the addition of PSEG-Long Island and National Grid-Rhode Island, there are now nine programs in the region referencing NEEP’s ccASHP specification/product list.</p>				
<p>Outcome: NEEP’s regional market transformation strategies and resources for ASHPs are referenced or used in at least five new jurisdictions.</p> <p>Progress: Four programs in new jurisdictions are leveraging NEEP’s ASHP resources – the Northwest U.S. (Northwest Energy Efficiency Alliance and the Bonneville Power Authority), Minnesota (Otter tail Power), and Colorado (Holy Cross Energy).</p>				



<p>Outcome: At least five Northeast states and 75 percent of manufacturers with products listed on NEEP’s 2019 ccASHP list reference or use NEEP’s best practice 2018 ccASHP installer guidance and/or 2019 consumer guidance to select ccASHP systems.</p> <p>Progress: The Massachusetts Clean Energy Center (MassCEC) and Efficiency Vermont promote NEEP’s ASHP installer resources. We are not aware of any manufacturers formally leveraging the resources.</p>				
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Federal & State Appliance Efficiency Standards

Mission: Supporting minimum product efficiency standards that lock in long-term energy and carbon emission savings enabled by regional and national market transformation activities.

<p>Federal and State Appliance Efficiency Standards Long-Term Market Transformation Goals</p> <ul style="list-style-type: none"> ➤ By 2022, at least four Northeast states adopt state appliance standards not covered by the federal program. ➤ By 2025, federal appliance standards are updated to secure all cost effective energy and carbon savings and include 2019 Northeast states standards.
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2019 started off with a large investment in [appliance standards](#), both at the state and federal levels. Many states throughout the Northeast and Mid-Atlantic (including Maine, Mass., R.I., Conn., and D.C.) introduced new standards packages modeled after the 2019 Appliance Standards Awareness Project (ASAP) Model State Standards bill. These states joined several outside of the NEEP region, including most notably Wash., Colo., and Hawaii, which have passed new state standards. Conversations continue with interested parties in N.Y., N.J., and Pa. NEEP, in close partnership with ASAP, has helped provide technical assistance to Northeast and Mid-Atlantic states as they navigate the complex world of state standards. At the federal level, after nearly two years of very little rulemaking, the U.S. Department of Energy’s (US DOE’s) appliance standards programs began to pick up momentum. US DOE sought comment on several potentially impactful rules, including multiple industry petitions submitted to US DOE on furnaces and water heating, as well as releasing notices on general service and updating their process rules. NEEP provided comment on several dockets and worked with regional partners to provide technical support for their own letters; several partners provided comments to US DOE on these dockets. For more details, NEEP has been updating a tracker for US DOE and ENERGY STAR activities online [here](#).

Progress Toward 2019 Appliance Standards Outcomes	25%	50%	75%	100%
<p>Outcome: At least six Northeast states propose new state appliance standards in 2019.</p>				



<p>Progress: Five states (Maine, Mass., R.I., Conn., and D.C.) have already proposed new state appliance standards, with two or three others (N.Y., N.J., and Pa.) expected to do so this year.</p>				
<p>Outcome: At least two Northeast states adopt new state appliance standards in 2019.</p> <p>Progress: There are no Northeast states that have yet adopted new state appliance standards, though several have held hearings and been voted out of committee; stakeholders are hopeful for further progress this year.</p>				
<p>Outcome: At least 10 Northeast states and associated stakeholders actively engage to encourage the U.S. DOE Appliance Standards and EPA ENERGY STAR programs to keep pace and remain active to increase product energy efficiency.</p> <p>Progress: Several stakeholders have joined NEEP in submitting comments to US DOE and the U.S. Environmental Protection Agency (US EPA) ENERGY STAR program.</p>				
<p>Outcome: The general service lighting (EISA 2020) standard moves forward as intended with a 45 lumen-per-watt minimum efficiency standard in 2020.</p> <p>Progress: US DOE’s February notice of proposed rulemaking (NOPR) proposed a major setback related to EISA 2020, but NEEP is working with partners to defend the standard. US DOE is expected to issue a final rule on the matter eventually, though it may not be in 2019 as they received thousands of comment letters to consider.</p>				

Building Energy Codes, Benchmarking, and Home Energy Labeling

Mission: Assisting states and communities to save energy, reduce costs, decrease emissions, improve resiliency, and strengthen workforce development through best practices in building energy code adoption, enforcement, compliance benchmarking, and home energy labeling.

<p>Building Energy Codes, Benchmarking, and Home Energy Labeling Long-Term Market Transformation Goals</p> <ul style="list-style-type: none"> ➤ By 2022, all Northeast states adopt the latest model energy code that increases energy savings. ➤ By 2030, at least six Northeast states require zero energy for building energy codes for new and renovated homes and buildings. ➤ By 2030, 30% of existing homes and buildings are benchmarked and retrofitted to reduce carbon emissions 50%.
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Kicking off 2019, NEEP focused on engaging stakeholders through webinars and public presentations, as well as convening working groups for our [building energy codes](#), home energy labeling, and Massachusetts Achieving Zero Energy (MAZE) initiatives to set a foundation for the year to advance



building codes and [building energy labeling and benchmarking](#). Seven states in the NEEP region are on track to adopt the 2018 building energy code – the latest national model code. And all thirteen NEEP states are currently in progress to advance building energy codes. Adopting the latest code will put the states on a trajectory toward zero energy building (ZEB) codes between 2025 and 2030. Additionally, four states are in the process of adopting new or updated stretch codes. These leading states will be the first to establish zero energy codes opening pathways to address existing buildings and strategic electrification. Furthermore, NEEP held various conversations about building energy benchmarking and labeling with cities and states to initiate technical assistance. Massachusetts introduced legislation for statewide benchmarking and building energy performance targets due to NEEP’s knowledge of similar initiatives in cities.

Progress Toward 2019 Codes & Benchmarking Outcomes	25%	50%	75%	100%
<p>Outcome: Six Northeast states (DC, DE, MD, NJ, NY, VT) adopt a recent model energy code (2018 IECC).</p> <p>Progress: Thus far in 2019, Mass. and Md. have adopted the 2018 building energy code; R.I. adopted the 2015 code, and is reviewing the 2018 code; 10 other states are on track to update to the 2015 or 2018 code this year (N.J., N.Y., D.C. Vt., Del., W.Va., N.H., Conn., and Maine; and Pa. is reviewing the 2018 code for 2022 adoption.</p>				
<p>Outcome: Three Northeast states implement zero energy stretch codes (DC, NY, VT) and three additional Northeast states adopt stretch codes (DE, MA, NJ).</p> <p>Progress: Vermont is updating their stretch code and D.C. and N.Y. are adopting new stretch codes (zero energy in D.C.). In Mass., various stakeholders – including NEEP, through the MAZE project – are working toward a 2019 update of the Green Communities building standard.</p>				
<p>Outcome: Five Northeast states invest in initiatives to achieve 90+ percent code compliance statewide (CT, DE, MD, NJ, PA).</p> <p>Progress: We continue to work in Conn. on a code compliance field study funded by the US DOE; N.J. is launching a code collaborative with the intent of undertaking a similar US DOE field study; and Del. issued an RFP for a US DOE field study administrator.</p>				
<p>Outcome: Two Northeast states and cities commit to create and implement a benchmarking and labeling (e.g., Energy Star for Existing Homes) policy roadmap as a building decarbonization strategy.</p> <p>Progress: Hartford, Conn., Providence, R.I., and Montpelier, Vt. have all committed to creating a plan for benchmarking and labeling to be implemented in Q2-Q4 of 2019; Mass. has proposed legislation for statewide benchmarking; and New York City (NYC) has adopted a building</p>				



energy performance standard requiring buildings over 25,000 square feet to reduce emissions by 40% by 2030.				
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Efficient, Resilient Community Pathways and Resources

Mission: Best practice guidance, peer information exchange, and technical assistance to advance resilient, energy efficient, low-carbon public buildings and communities.

<p>Efficient, Resilient Community Pathways and Resources Long-Term Market Transformation Goals</p> <ul style="list-style-type: none"> ➤ By 2022, All Northeast states adopt policies to assist in reaching their goal to reduce building sector energy consumption 3% per year and carbon emissions 40% by 2030. ➤ By 2025, 60% of Northeast communities reduce municipal building energy consumption by 20% or more. ➤ By 2030, 60% of Northeast communities have programs to reduce carbon emissions 50% across their residential and commercial sectors.

The beginning of 2019 brought a flurry of activity surrounding high performance school projects in multiple states across the region. A positive trend stemming from these discussions is that communities are pursuing high performance/zero energy projects on their own, but there is a need for direct technical assistance, resources, and support from outside sources to ensure these projects move forward. Additional community-level initiatives were mainly focused on building energy benchmarking and labeling programs. NEEP also kicked off the [Achieving Community Efficiency \(ACE\) project](#), convening a project advisory committee to inform efforts and help engage key stakeholders. Presentations and engagements over the course the first quarter resulted in over 150 stakeholders engaged including communities, utilities, states, and private-sector representatives. Through these engagements, NEEP is now working directly with eight communities in the region on an ongoing basis to improve the efficiency of building stocks in communities.

Progress Toward 2019 Communities Outcomes	25%	50%	75%	100%
<p>Outcome: Twenty-two new Northeast communities commit to energy- and carbon-reduction goals.</p> <p>Progress: While many leading communities (e.g., Cambridge, Mass. and Providence, R.I.) have already established goals, smaller communities are now following. NEEP is currently engaged with the towns of Carlisle and Bedford, Mass. on their municipal energy plans. Engagements with towns in Maine (Portland and South Portland) and Connecticut (Hamden, Mansfield, and Hartford) are ongoing. Multiple opportunities are upcoming for engagements with communities in West Virginia and Pennsylvania as a part of the ACE project.</p>				



<p>Outcome: At least nine Northeast states have policies, plans, or programs that encourage the development of high performance and/or zero energy buildings at the local level.</p> <p>Progress: The states with greatest opportunity for this type of program are West Virginia and Rhode Island. NEEP is actively engaged with staff members of both states’ energy offices as a part of the ACE project. This project presents a forum for other states with this type of program (Mass., Pa., N.Y., etc.) to share lessons learned and best practices for establishing a statewide, community-level program. As the ACE project ramps up, these discussions and actions toward this goal will progress.</p>				
<p>Outcome: At least three Northeast states (CT, MA, NY, and/or RI) and ten communities implement strategic electrification policies or programs to improve efficiency and decarbonize energy use in public existing buildings.</p> <p>Progress: Both Carlisle and Bedford, Mass. are working toward strategic electrification plans for their building stocks. Internally, NEEP is preparing to develop a module for the Community Action Planning for Energy Efficiency tool that will provide a roadmap for communities to take on a strategic electrification. This initiative will also be a part of the ACE project and a small sub-committee will be developed to inform this effort going forward.</p>				

Home Energy Labeling Information eXchange (HELIX)

Mission: Making the energy efficiency of homes visible and understood at time-of-sale or rental.

<p style="text-align: center;">Home Energy Labeling Information eXchange (HELIX) Long-Term Market Transformation Goals</p> <ul style="list-style-type: none"> ➤ By 2025, home energy information is populated in all residential real estate listings across the Northeast. ➤ By 2025, lenders, realtors, appraisers in all Northeast states use home energy information to value residential real estate and to support investments to improve energy performance.

Beginning in 2019, NEEP deployed the [Home Energy Labeling Information eXchange \(HELIX\)](#) beyond the pilot phase of the US DOE grant hosted by the Vermont Department of Public Service (VT PSD) to develop, test, and launch HELIX to include home energy labels in property listings at scale in Northeast states, and to increase the number of home energy labels. We engaged Northeast states on capturing solar PV data to make HELIX a comprehensive tool for stakeholders, successfully integrating data from Conn., Mass., and Vt. The project team is working with other states to further integrate renewable energy. We also refreshed and engaged our regional HELIX Advisory Committee of real estate professionals, state energy offices, utilities, and lenders to inform HELIX features and functions, deploy HELIX, prepare a sustainable business and funding model to continue HELIX beyond the grant period, educate real estate professionals on the value of energy efficiency in real estate transactions, and plan for a marketing and communications strategy to build public and consumer awareness of home energy



labels. Our [2018 year-end HELIX Summit in Providence, Rhode Island](#) brought close to 100 regional and national stakeholders together to assess opportunities, barriers, and strategies to increase the availability and use of home energy labels to build consumer and market value for homes with energy efficient and clean energy features, and to discuss the role of HELIX to support that. We are advancing the project based on these event outcomes.

Progress Toward 2019 HELIX Outcomes	25%	50%	75%	100%
<p>Outcome: By year end, HELIX populates home energy information in 20 percent of residential real estate listings in New England and New York State.</p> <p>Progress: Currently HELIX is being rolled out in Conn., R.I., N.Y., and Vt., where all have signed on to use HELIX beyond the initial grant period. The team is working with Multiple Listing Services (MLSs) in respective states to ensure a seamless transition of data to residential real estate listings.</p>				
<p>Outcome: Home energy labels in New England and New York property listings increase by 20 percent.</p> <p>Progress: The project team has solidified a partnership with Pearl, Passive House U.S., and RESNET to incorporate their data into HELIX and MLSs in the region which will increase the number of energy labels in the market.</p>				
<p>Outcome: HELIX has a viable, self-sustaining revenue model ready to begin in 2020.</p> <p>Progress: NEEP has completed the draft business plan for the future of HELIX. This business plan is comprehensive, including long-term and short-term goals, operations policies, and revenue plans. It will be used to guide HELIX forward beyond the US DOE grant period.</p>				
<p>Outcome: HELIX is modified to accept and maintain solar data in at least four Northeast states.</p> <p>Progress: NEEP has secured solar PV data from Vt. and Mass. and has submitted a request for data from the Connecticut Green Bank. Three meetings have been held with R.I. stakeholders and we are waiting for feedback from the Rhode Island Office of Energy Resources (RI OER) on the content to provide to National Grid-Rhode Island’s legal and regulatory team.</p>				



Smart Energy Homes

Mission: Enabling residential decarbonization by transforming homes to be efficient and flexible grid assets.

Smart Energy Homes Long-Term Market Transformation Goals
<ul style="list-style-type: none"> ➤ By 2022, virtually all smart products are DER-ready and can work as part of an integrated Smart Energy Home system. ➤ By 2030, 50% of Northeast homes are “energy smart” (i.e., have at least two “energy smart” systems - HVAC, water heating, plug loads/appliances). ➤ By 2030, 30% of existing homes and buildings are benchmarked and retrofitted to reduce carbon emissions 50%.

In 2019, NEEP’s smart energy homes initiative has centered around decarbonization. A new report, [The Smart Energy Home: Driving Residential Building Decarbonization](#), was released in March with an associated webinar that attracted participation from across the region and beyond. NEEP also hosted the first quarterly meeting of the Home Energy Management Systems working group and highlighted recent efforts, including from [ENERGY STAR in the Smart Home Energy Management Systems](#) specification, which released a draft version of the specification in April. We also focused activities in preparation for the [HPC National Conference](#) and the associated smart homes track and contractor training, where programs from across the region including from Mass., R.I., N.Y., and Md. were featured, as well as NEEP presenting guidance on decarbonizing the residential sector through the smart energy home.

Progress Toward 2019 Smart Homes Outcomes	25%	50%	75%	100%
<p>Outcome: Six more efficiency programs in the Northeast U.S. and Canada offer incentives for smart homes or smart home energy management products joining CT, MA, MD, NH, NJ, NY, RI, and VT.</p> <p>Progress: NEEP has worked toward this outcome for the past five years by supporting the smart thermostat market, convening a home energy management systems (HEMS) working group, participating in the smart thermostat specification development process with ENERGY STAR, and sharing information about the opportunities in regional and national venues. Most states are on board, and we are hopeful that all programs in the region will soon have smart thermostat programs, though there are no active discussions or progress at this point.</p>				



<p>Outcome: Programs in five more Northeast states join MA, MD, NY, RI, and VT in NEEP’s regional effort to advance smart energy homes by conducting pilots, hosting innovative programs, and/or conducting research.</p> <p>Progress: Progress toward this outcome will be tracked in the HEMS working group as it is likely that many stakeholders involved in the pilots will also participate in the working group; however, there was no new state pilot activity in the first quarter.</p>				
<p>Outcome: Most major manufacturers of smart energy home products serving the Northeast U.S. offer DER-ready products by the end of 2019.</p> <p>Progress: ENERGY STAR is working on a new specification, Smart Home Energy Management Systems (SHEMS), and NEEP has been weighing in on the framework and draft documents to encourage them to support integration with DERs, including EVs and connected water heaters. If this is included in the ENERGY STAR specification, manufacturers who want to earn ENERGY STAR will have to comply, which would go a long way toward making them DER-ready. This need was articulated in NEEP’s Decarbonization report mentioned above, which provides a roadmap for manufacturers.</p>				

Smart, Low Carbon Commercial and Industrial Solutions

Mission: Accelerating adoption of high efficiency technologies, practices and business models that provide integrated commercial and industrial sector solutions that increase efficiency and productivity, reduce costs and carbon emissions, and respond to grid needs.

<p>Smart, Low Carbon Commercial and Industrial Solutions Long-Term Market Transformation Goals</p> <ul style="list-style-type: none"> ➤ By 2025, Strategic Energy Management becomes a standard business practice and is adopted by 40% of the 69,000 manufacturing plants across the region. ➤ By 2025, Advanced Roof-top Units and VRF systems grow to 33% of the installed RTU base in all Northeast states (from 1% in 2018).
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NEEP continues to host the [Strategic Energy Management \(SEM\) Collaborative](#), launched in early 2018, that offers stakeholders in the Northeast a pathway to achieving significant energy and carbon savings by accelerating the adoption of SEM in the industrial, commercial, and municipal sectors. Through this collaborative, SEM programs in Conn., Mass., N.H., N.Y., R.I., and Vt. have reported progress. While Pa. does not currently have any SEM programs, they do support SEM adoption by offering SEM training and coaching. All of the aforementioned represents progress toward the goal of Strategic Energy Management becoming a standard business practice by 2025 and 40% of the 69,000 manufacturing plants across the region adopting SEM by 2025. NEEP also conducted meetings with the Variable Refrigerant Flow (VRF) Working Group to highlight barriers to greater adoption of VRF systems in the region, and to identify strategies for overcoming these barriers. Information from these meetings was



used to inform a VRF strategy report – a draft of which is currently under development. The report will chart a clear set of strategies that NEEP will move forward with regional support to drive accelerated adoption of VRF systems in the region.

Progress Toward 2019 C&I Outcomes	25%	50%	75%	100%
<p>Outcome: Energy efficiency programs in seven Northeast states (CT, MA, NH, NY, PA, RI, VT) support SEM as a program measure (an increase of 50 percent).</p> <p>Progress: Most of these states recognize SEM at the moment. While Conn. has been short on funding over the last year, they are currently seeking more funding to support SEM programs and are actively increasing their SEM focus. Pa. does not have any SEM programs, but provides guidance and training on SEM.</p>				
<p>Outcome: Five end-users (companies/municipalities) in the region receive 50001 Ready recognition.</p> <p>Progress: NEEP is currently working with selected contractor Cascade Energy to identify five end-users for 50001 Ready.</p>				
<p>Outcome: Programs in four states fund and participate in NEEP’s R-22 Phase-out Commercial HVAC market assessment and strategy development.</p> <p>Progress: This project is not moving forward.</p>				

State & Local Policy Tracking and Technical Assistance

Mission: Tracking, analyses, reports and technical assistance to help state and local government adopt public policies that reduce building sector energy consumption 3% per year and carbon emissions 40% by 2030.

<p>State & Local Policy Tracking and Technical Assistance</p> <p>Long-Term Market Transformation Goals</p> <ul style="list-style-type: none"> ➤ By 2020, the Northeast region continues to lead the nation in efficient demand-side resources and carbon emission reduction and provides an inspiring model for others to follow. ➤ By 2020, all Northeast states have statewide programs supporting communities to achieve state carbon reduction goals. ➤ By 2030, all Northeast states adopt policies to reduce building sector energy consumption 3% per year and carbon emissions 40%.
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At the onset of 2019, state legislatures opened sessions and a flood of bills were introduced in each state throughout the region. As these bills make their way through the initial steps of the legislative process, NEEP will track and report on them in [our policy tracker](#). This enables NEEP to identify trends and key issues that states are pursuing this year – such as building codes, electrification, and



comprehensive climate goals. NEEP then takes this information from the policy tracker and reports out via policy blogs ([January](#) and [March](#)). Presenting this regional picture of policy trends across states can create a mass movement by informing legislatures that others are also moving in a particular direction. States throughout the region are shaping frameworks to push carbon reduction through policies such as the [Green New Deal](#) or Global Warming Solutions Acts and carbon pricing. NEEP also published the 2017 program data for utility energy efficiency programs in the Regional Energy Efficiency Database ([REED](#)). This tool is used to track programs toward reducing building-sector energy consumption through utility programs. To ensure that REED captures relevant information for changing utility business models and programs with additional performance metrics, NEEP is developing a strategic vision for the future of REED. Furthermore, NEEP has drafted a building decarbonization policy framework to provide a blueprint for states to reduce building-sector energy consumption and greenhouse gas (GHG) emissions. The policy framework will be geared toward state energy offices, public utility commissions, communities, and advocates working to push forward different aspects of the policy framework. By creating a comprehensive look at the policies that need to move forward in different policy areas at the same time, states and communities will have a better understanding of the policies needed to achieve their carbon reduction and climate goals.

Progress Toward 2019 Policy Outcomes	25%	50%	75%	100%
<p>Outcome: At least two Northeast states join leading cities to adopt roadmaps to accelerate home and building decarbonization to meet state carbon emission reduction goals (e.g., with efficient electrification of fossil heating, thermal efficiency, smart controls, demand response, building energy labeling and performance standards, and zero energy building codes).</p> <p>Progress: Mass., Maine, and Vt. have bills proposed this session to study the role of electrification, achieving zero waste economy, and ensuring the low-income sector can equitably reduce greenhouse gas (GHG) emissions. Mass. also has a building energy performance standard. Various states (N.Y. and Ct.) are also proposing Green New Deal policy roadmaps to rapidly decarbonize their economies. States are on track to meet this goal.</p>				
<p>Outcome: At least three additional Northeast states adopt energy efficiency program metrics to reduce total energy consumption in homes and buildings.</p> <p>Progress: Massachusetts included an all fuels MMBtu metric in their 2019-2021 energy efficiency plan, which was approved by the Massachusetts Department of Public Utilities (MA DPU) in January 2019. N.Y. has a long-term all fuel target for 2025.</p>				



<p>Outcome: Ratepayer-funded efficiency programs in five Northeast states provide “all fuels” energy efficiency services to accelerate high performance, low carbon homes and buildings aligned with state carbon emission reduction goals.</p> <p>Progress: This is provided for in Vt. (Burlington Electric 2018-2020 plan), Mass. (Joint EE plan 2019-2021), N.Y. (Joint utilities EE plan for 2021-2025), Ct. (C&LM plan 2019-2021), and Maine (Triennial plan IV).</p>				
<p>Outcome: At least three Northeast states (CT, MA, NY, and/or RI) and ten communities implement strategic electrification policies or programs to improve efficiency and decarbonize energy use in public existing building.</p> <p>Progress: Mass., N.Y., Maine, Conn., and R.I. have electrification policies proposed in state legislation. Sixteen Vermont towns passed non-binding climate change resolutions on Town Meeting Day, bringing the state total to 55 municipalities. The resolutions call for an end to construction of fossil fuel infrastructure, a commitment to 100 percent renewable energy by 2030, and a fair and equitable transition to those standards.</p>				