# NEEP 2022 Quarterly Report
# Quarter Two

## *Building Energy Codes and Appliance Standards*

The Northeast and Mid-Atlantic region continued its progression toward the adoption of the latest codes and standards in the second quarter. Ten NEEP states are in the process of adopting the 2021 International Energy Conservation Code (IECC); this includes Massachusetts, Vermont, Connecticut, New Jersey, Maine, Rhode Island, Delaware, Maryland, and the District of Columbia. This progress is critical, as the 2021 IECC is the basis for zero energy buildings, which will required by the IECC in 2030. West Virginia adopted the 2015 IECC through legislation that will be effective August 1, 2022 and New Hampshire adopted the 2018 IECC through legislation that went into effect July 1, 2022. New York has opted to skip the 2021 IECC and instead wait for the release of the 2024 IECC, which they plan to adopt as early as 2023. NEEP continues to serve on the International Code Council (ICC) 2024 IECC commercial consensus committee and building model subcommittee to review proposals for inclusion in 2024 IECC, which will be published in 2023.

NEEP continues to engage new states to use our Supplemental Appliance Standards Database (SASD) and toolkit to assist the implementation of state standards. New York, Rhode Island, and the District of Columbia have all joined Massachusetts in signing on to utilize the database. We hope to include product listings for Maine, Connecticut, and New Jersey in 2022 as well. To support this work, NEEP collaborated with the Appliance Standards Awareness Project (ASAP) and United State Climate Alliance (USCA) to host a national discussion in June to move states toward adopting and implementing state appliance standards and to support federal standards rulemaking.

To support code adoption, NEEP convened the Regional Codes Working Group regional and state code collaboratives in Maine, New Hampshire, and Massachusetts, provided direct technical assistance to all states in our region, and facilitated informational webinars. Additionally, we convened core members of a new building performance standards/codes coalition with representatives from Boston, New York, and Washington, D.C.

NEEP's work in Massachusetts is a prime example of how we bring stakeholders together and provide technical assistance to state governments on codes. The Massachusetts Department of Energy Resources (MA DOER) released a straw proposal for an updated stretch energy code and opt-in code in February. NEEP and a Technical Working Group that we convene participated in two three-hour workshops with MA DOER to address

strengthening the proposed codes. NEEP also facilitated a working group to develop resources on the proposed stretch code to increase public engagement and accessibility.

NEEP facilitated a webinar on appliance standards as well as a webinar with Green Building United focused on heating electrification and codes for New Castle County, Delaware. We also presented on embodied carbon with the Carbon Leadership Forum at the Regional Codes Working Group quarterly meeting and to the Northeast States for Coordinated Air Use Management (NESCAUM) on the nexus of energy codes and air/emissions regulations. Additionally, we published various resources including briefs on the nexus of energy codes and building performance standards and building energy codes and insurance underwriting, and distributed two versions of the Codes and Standards newsletter, The Code Word. We also updated and reposted the online ArcGIS codes tracker and updated our webpages on appliance standards and codes.

Lastly, at the NEEP Summit in June, we held two codes-focused sessions – Getting to Zero without a Net and It's Coming From Inside the House! Embodied Carbon – both of which featured expert moderators and contributors.

| Progress Toward 2022 Outcomes | % Complete at Q1 |
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| **1. Four additional Northeast and Mid-Atlantic states adopt electrification/zero energy stretch codes (DE, MA, NY, RI); Two additional Northeast and Mid-Atlantic states adopt stretch codes (CT, NJ)**<br><br>**Progress Toward Outcome:** NEEP supported New Castle County, Delaware with adoption and implementation of their stretch code. We also continued to provide assistance in Rhode Island as they begin the process of updating their stretch codes, and are in active conversation with New Jersey regarding development of a stretch code in 2023. Lastly, we are working with MA DOER as they work toward adopting an updated stretch code and a municipal opt-in specialized code. | 40% |
| **2. Municipalities in six states (CT, DE, MA, MD, NH, WV) adopt zero energy building codes**<br><br>**Progress Toward Outcome:** Maryland and Delaware are expected to begin the adoption process of the 2021 IECC with strengthening amendments this year. Several other states (Conn., D.C., Vt., Md., Del., N.J., and Maine) are in the process of adopting the 2021 IECC. New York has opted to skip the 2021 IECC and is instead planning to adopt the 2024 IECC in 2023. | 30% |

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| **3. Three additional states (CT, NH, PA) adopt code and standards attribution requirements and improve code compliance through workforce development, specifically code official retention and training**<br><br>**Progress Toward Outcome:** NEEP began to collect information from Pennsylvania and Delaware for a regional code compliance study to begin in late 2022 or early 2023. We also provided technical assistance to Efficiency Vermont on new programs to address code attribution, and are developing resources for claiming savings from appliance standards. | 25% |
| **4. Five states (CT, MD, NY, PA, VT) adopt appliance standards, and four (MA, ME, NJ, RI) implement adopted standards**<br><br>**Progress Toward Outcome:** New York adopted appliance standards through Assembly Bill A10439 and NEEP provided assistance to the New York State Energy Research and Development Authority (NYSERDA) in using SASD. New York joins New Jersey and Maryland with their adoption of appliance standards this year. We are also working with Rhode Island and New Jersey as they begin research on standards, and continue to support Massachusetts' implementation of standards. | 50% |

## *Grid-Interactive Homes and Buildings*

Grid-interactive homes and buildings are a key complement to the region's decarbonization efforts, enabling broad building electrification as well as helping to manage intermittent renewable power supply. In the near term, these homes and buildings are serving to reduce the need for expensive grid/pipeline infrastructure investments and prevent expensive summer spikes on the grid. NEEP's work in the second quarter reflected a shifting focus from grid-interactive technology deployment to highlighting the underlying policies that will support a more compelling value proposition for broad customer participation in grid-interactive activities, especially residential customers.

| Progress Toward 2022 Outcomes | % Complete at Q1 |
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| **1. Three states consider adopting policies and regulations that identify grid-interactive homes and buildings as alternatives to investing in additional grid infrastructure build out (i.e., non-wires or non-pipes alternatives)**<br><br>**Progress Toward Outcome:** New York is rolling out a series of non-pipeline alternative projects throughout the state, many including grid-interactive buildings as a key solution. | 33% |
| **2. Three states offer incentive programs for grid-interactive appliances and equipment (including storage) with special consideration for overcoming equity barriers**<br><br>**Progress Toward Outcome:** Connected Solutions programs in Connecticut, Massachusetts, Rhode Island, and New Hampshire offer incentives for connected water heaters, electric vehicle (EV) chargers, and batteries. | 100% |
| **3. Three states launch grid-interactive homes and buildings demonstration projects**<br><br>**Progress Toward Outcome:** Three Connected Communities projects are set to launch in the region with funding from the U.S. Department of Energy (US DOE) – these are in New York, Maine/New Hampshire, and Massachusetts. | 100% |

## *Heating Electrification Market Transformation*

NEEP's Heating Electrification initiative supported the market development of heat pumps in a number of impactful ways in the second quarter. The cold climate air source heat pump (ccASHP) product list continues to grow as a key market resource, with daily visits now up to 300 as an increasing number of consumers and installers are using the list to effectively select systems appropriate for cold climate applications. NEEP also launched a new sizing tool to make the performance data in the product list more actionable for installers to properly size systems. To effectively maximize performance of heat pumps, high performance systems must also be designed, sized, installed, and operated well. This new tool and other NEEP supporting resources contribute to this.

We made significant progress on the cold climate specification front, moving new proposals forward for air source heat pumps (ASHPs) and variable refrigerant flow (VRF) and finalizing a new specification for packaged terminal heat pumps (PTHPs). PTHPs are seen as an important electrification solution in multi-family retrofits.

NEEP leads a number of collaborative research projects aimed at advancing knowledge related to heating electrification technologies. The research includes a DOE-funded VRF in-field performance validation study and another study co-funded across eight organizations exploring opportunities to improve heat pump test procedures. The projects bring together organizations from across the region and country to advance these technologies.

We also completed a draft regional ASHP market transformation progress report, which examines how well key market strategies have been implemented in the region and what new strategies are necessary.

| Progress Toward 2022 Outcomes | % Complete at Q1 |
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| **1. Five new programs use NEEP's ccASHP product list as a qualified products list (QPL) and product selection tool to help ensure high performance ASHPs are being selected by the market, and sized appropriately**<br><br>**Progress Toward Outcome:** PSEG and Jersey Central were two new programs to leverage the ccASHP product list in the second quarter. | 40% |

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| **2. 30 percent increase in annual sales of residential-size ASHP systems across the NEEP region**<br><br>**Progress Toward Outcome:** The New York-New England region saw a 28% increase in sales of residential-size ASHP systems from 2020 to 2021. | 90% |
| **3. Regional heating electrification programs exceed their own 2022 goals for ASHP, VRF, GSHP and HPWH sales, with particular emphasis on surpassing their specific goals for LMI customers**<br><br>**Progress Toward Outcome:** NEEP is gathering data on program goals for these technologies to establish a baseline. We also support the successful implementation of these regional programs. | Q4 Reporting |
| **4. Fifty regional stakeholders engage NEEP's new regional Advanced Water Heating working group to establish highest priority regional market transformation strategies**<br><br>**Progress Toward Outcome:** NEEP is in the planning stage for a regional water heating initiative; we expect to engage stakeholders in the third quarter. | 0% |

## *Public Policy and Programs*

NEEP continues to track bills across the region with our legislative web tracker, which includes legislation from the past three years. The tracker is updated weekly and highlights are shared with NEEP's Allies network via newsletter. We follow new bills closely to identify key target areas and trends, with an emphasis on climate goals and roadmaps, workforce development, equity, and building codes and standards.

We began development of a report on Centering Equity with Metrics, which breaks down the energy efficiency evaluation, measurement, and verification (EM&V) process into steps that states can follow to center equity – starting an equity advisory group, conducting an equity gap analysis, adjusting the cost-benefit analysis, and tracking metrics, goals, and performance incentives. Each step includes a discussion of why it is important to include considerations of equity, highlights how policymakers can start the process for their jurisdiction, and provides examples of states where these policies are already in action. The report was informed by a survey on metrics that went out to advocates, program implementers, and government staff.

NEEP published three blogs related to our public policy work in the second quarter. The first examined legislation proposed in Vermont to develop a clean heat standard, which would be the first cap-and-trade system designed to transition from fossil fuel heating to efficient, electric heating. The second examined the goals and mandates in Maryland's newest climate law, the Climate Solutions Now Act of 2022. The third featured information about how a jurisdiction can adopt a jurisdiction-specific cost-benefit test and analyzed the new tests adopted in Maryland and Connecticut.

We continued to engage with state-level advocates throughout the region, attending meetings in Connecticut, Maryland, New York, and New Jersey. We also attended meetings throughout New England where policies and priorities are discussed, including in Massachusetts, Connecticut, Rhode Island, Vermont, New Hampshire, and Maine. NEEP worked with advocates in New Jersey to draft legislation advancing workforce and equity-focused climate goals.

In addition to working with advocates, NEEP tracks regulatory proceedings and participates in state-run working groups to advance decarbonization policies throughout the region. In the second quarter, we submitted comments to Connecticut on the Department of Energy and Environmental Protection's (CT DEEP's) approval of utilities' Conservation and Load Management (C&LM) programs. NEEP applauded the state's progress in heating electrification, weatherization, equity, and creation of a new state cost-benefit test – the Connecticut Efficiency Test (CTET). We are also monitoring two proceedings in Connecticut – the Comprehensive Energy Strategy (CES)

and Performance Based Rates Proceeding. Both of these processes will be continuing through stakeholder meeting groups and proceedings throughout the year, and NEEP will continue to track their progress and provide technical assistance through comments and other means of participation.

| Progress Toward 2022 Outcomes | % Complete at Q1 |
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| **1. Three states (Maine, Maryland, Vermont) adopt a regulatory policy to use a Total Systems Benefit metric or similar measurement that considers real-time energy generation and use for energy efficiency and/or grid planning**<br><br>**Progress Toward Outcome:** NEEP participated in program planning in Maryland, and while a Total Systems Benefit metric was proposed to the working group, it was not adopted. We will continue to identify opportunities to highlight this metric and opportunities for regional adoption. | 0% |
| **2. Three states (Connecticut, Maryland, Massachusetts) embed additional climate and equity considerations in energy efficiency policies, with metrics tied to performance – i.e. GHG goals/tracking metrics, approaches to cost-benefit analysis**<br><br>**Progress Toward Outcome:** Massachusetts released their energy efficiency plans in January. They included additional tracking metrics and a performance incentive tied to equity.<br><br>Maryland released the order for their 2024 energy efficiency plans, and NEEP engaged with the public workgroup. The plans include the social cost of carbon and an adder for low-income and health and safety benefits to the cost effectiveness test. They also approved a greenhouse gas (GHG) emission goal for the portfolio with a carve-out for low-income savings.<br><br>Connecticut DEEP approved the state's energy efficiency plans and mandated that additional climate and equity considerations be included. These changes included development of a Comprehensive Strategic Plan to Address Barriers to Heat Pump Deployment, creation of a new Connecticut Efficiency Test (CTET) that includes metrics to capture GHG emissions and other utility system benefits including reduced arrearages, review of the definition of "equitable distribution," creation of a statewide definition of weatherization, transition to only all-electric new construction programs by 2023, and investigation into the continuation of natural gas incentives. | 100% |

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| **3. Three states (Maine, Massachusetts, Vermont) advance beneficial electrification policies for implementation by the regulatory agency over electric and/or gas utilities**<br><br>**Progress Toward Outcome:** The legislation to form a clean heat standard in Vermont failed, and the legislation in Rhode Island for a carbon tax has not advanced.<br><br>In Connecticut, the Department of Energy and Environmental Protection launched initiatives to advance beneficial electrification. These included a standard definition for weatherization, development of a Comprehensive Strategic Plan to Address Barriers to Heat Pump Deployment, transition to only all-electric new construction programs by 2023, and investigation into the continuation of natural gas incentives.<br><br>In Massachusetts, the Department of Public Utilities (DPU) approved Mass Save energy efficiency programs that prioritize beneficial electrification. The state has increased incentives and deployment for heat pumps. It is also focusing workforce efforts on heating electrification to ensure contractors can serve the new market. Additionally, the DPU has mandated that all homes that receive a heat pump system also receive weatherization within six months of installation. The DPU has also aligned performance incentives with the state's electrification goals, creating an incentive that is tied to program administrators installing heat pumps with weatherization. | 66% |
| **4. Three states (Connecticut, Massachusetts, New York) set long-term grid planning policies that prioritize energy efficiency and other demand side resources over the expansion of pipes and wires infrastructure**<br><br>**Progress Toward Outcome:** Connecticut released a draft decision in the Future of Gas Expansion docket that stops all expansion of natural gas in the state and conversion of homes to natural gas. As justification for winding down the program, regulators cited the fact that companies have not been able to meet the program goals, gas prices have nearly tripled in the state, and Connecticut's new climate goals do not align with increasing gas expansion. A discussion began on performance-based rates, which will tackle how to transform utility rates in the state to incentivize investment in programs that further state goals, including energy efficiency and demand-side resources.<br><br>The New York Public Service Commission initiated a docket on Gas Planning Procedures in March of 2020 and issued a Gas System Planning Proposal in February 2021. The Commission has not yet issued a decision on the matter.<br><br>In October 2020, the Massachusetts DPU initiated the Future of Gas docket, which is still ongoing. An independent consultant's report, released in March, presents eight | 30% |

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| pathways to decarbonization and six regulatory design recommendations. The DPU has not yet issued a decision in the proceeding.<br><br>In addition to the proceedings in New York and Massachusetts, the Rhode Island Public Utilities Commission (PUC) opened a docket to investigate the effect of the 2021 Act on Climate on the regulated gas distribution system in the state. This proceeding will include a stakeholder process that identifies goals for the future of the gas system in light of the Act on Climate Law, update principles for ratemaking and regulation, and develop a scope for a report on the future of gas distribution business operations. | |

## Retrofit Models

NEEP's Retrofit Models initiative focuses on scaling up whole home deep energy retrofit projects and programs. The Total Energy Pathways (TEP) program provides homeowners with an easy and affordable whole-home retrofit solution. TEP bundles together weatherization, energy efficiency, electrification, and renewable energy upgrades into one comprehensive retrofit project. Traditionally, these projects have been implemented and financed separately causing confusion and extra work for the homeowner. The TEP model seeks to streamline this process, achieve deeper levels of carbon reductions, and make projects more attractive to contractors. Originally piloted in Vermont, NEEP is working to bring lessons learned from this model to other states as a carbon reduction solution for homes.

NEEP has been heavily involved in the development of New York's Stacked Efficiency and Electrification Pilot (SEEP) Framework. We lead the SEEP Framework Working Group's monthly meetings and weekly coordination calls. Each monthly meeting convenes stakeholders to discuss a specific facet of the stacked retrofit program model. This quarter marked the end of the monthly meetings, and attention will now shift to writing the framework using the knowledge gained from this engagement. Going forward, we will conduct one-on-one interviews with experts in the field to further inform the framework. Sections of the framework include an assessment of program impacts, metrics, financing mechanisms, and more. The knowledge of NEEP's extensive network of partners and Allies has been particularly valuable in this process.

Additionally, we continued work on the Total Energy Pathways Workforce Development project. This project will grow and diversify the energy efficiency field by developing a Building Performance Institute (BPI) certificate program and an online resource center, both of which will continue to be available after the three-year project concludes. We are focusing specifically on outreach to women and Black, Indigenous, and people of color (BIPOC) stakeholders. Discussions between NEEP and project partners Energy Futures Group (EFG), Building Performance Association (BPA), and BPI resulted in the launch of Total Energy Pathways Regional and Workforce Development webpages and the TEP Workforce online resource center with linked resources from our project partners. The resource center also hosts two new NEEP resources including a Home Energy General Contractor Fact Sheet, which outlines the responsibilities and skills of a general contractor, and a one pager with highlights of our online resource center. This resource highlights exemplary workforce development programs that can be modeled across the region. Under NEEP guidance, BPI and EFG worked together to set the scope of the TEP certificate, developing the Knowledge and Skills Assessment (KSA) that will form the basis of the topics that the TEP certificate will cover. NEEP also published a blog, Total Energy Pathways Workforce: A Primer, which describes the needs on the part of homeowners, the labor shortage, and the ways in which TEP Workforce can fill the gaps. In addition to the monthly

project meetings, NEEP hosted a quarterly TEP Workforce Project Advisory Committee (PAC). The PAC welcomed new member Paul Douglas of JPI group, a minority-owned staffing and workforce consulting firm. NEEP updated the PAC on the progress of the online resource center and BPI presented on the status of the TEP certificate development. The certificate is focusing on people who are newer to this career and what skills they would need to get started.

| Progress Toward 2022 Outcomes | % Complete at Q1 |
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| **1. Two energy efficiency programs launch new whole-home/small commercial deep retrofit offerings**<br><br>**Progress Toward Outcome:** There are active efforts in multiple states to launch whole-home retrofit programs in which NEEP is engaged. Massachusetts' Mass Save 2022 - 2024 plans, released in January, included a new Deep Energy Retrofit program for commercial and industrial customers to provide technical and financial assistance for business to manage energy investments and usage in a holistic manner. Progress was also made in New Jersey on the development of their Whole House Pilot Program. A stakeholder meeting was held to share an asset and gap analysis report, and the program will likely launch in the third quarter. | 50% |
| **2. Two states or jurisdictions launch whole-home energy efficiency and decarbonization programs**<br><br>**Progress Toward Outcome:** NEEP continued work in New York to develop the Stacked Efficiency and Electrification Pilot, which would allow program administrators to develop a successful whole-home decarbonization retrofit program for their territory. As discussed above, the project team will now focus on writing the framework for the pilot.<br><br>Connecticut launched the Weatherization Barrier Remediation program earlier in 2022. This program was created to address common barriers such as mold and asbestos that have historically prevented homes from successfully completing weatherization and efficiency upgrades. The state has selected ICAST as the program operator.<br><br>The Massachusetts Clean Energy Center (MassCEC) kicked off the Decarbonization Pathways pilot program, which will use a newly developed assessment protocol for single-family and low-rise multifamily buildings. The protocol will help homeowners create and implement a comprehensive decarbonization roadmap. Abode Energy was selected to implement the pilot program, which will be split into two cohorts – the first of which began in the second quarter, and the second will begin later in 2022. | 100% |

| Progress Toward 2022 Outcomes | % Complete at Q1 |
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| In Philadelphia, the Built to Last program is ongoing and currently serving the first 50 houses in the pilot program. The program will be deployed at a larger scale in 2023. | |
| **3. Three retrofit programs consider equity goals and/or financing solutions for income eligible households and business and/or targeted communities**<br><br>**Progress Toward Outcome:** We launched the TEP Workforce development program, which focuses on educating and recruiting women and BIPOC workers to the energy efficiency workforce. This program educates contractors to retrofit homes by packaging several energy efficiency upgrades under one umbrella**.**<br><br>In Massachusetts, the Mass Save 2022- 2024 plan includes a statewide strategic electrification initiative. As part of this initiative, DPU requires program administrators to weatherize every home in the state when installing heat pumps in order to receive credit for their performance incentives. Weatherization is free for low-income customers and offered at a reduced price for moderate-income customers. In addition, the DPU required program administrators to demonstrate that they are delivering equitable program benefits to specific "target communities" identified as underserved.<br><br>Connecticut's Weatherization Barrier Remediation Program addresses health and safety issues, such as mold and asbestos that prevent the completion of weatherization and energy efficiency measures. The program will help reduce energy burdens experienced by low-income households and will specifically track program benefits across the state to ensure an equitable distribution is occurring. | 66% |

## *Solutions for Low-Carbon States and Communities*

NEEP made progress in our Solutions for Low-Carbon States and Communities initiative through active stakeholder engagement and resource development activities. We returned to NEEP's Ready, Set, Scale webinar series in May with a public webinar on centering equity within a building performance standard (BPS). Panelists shared insights from the development of a BPS in St. Louis, Missouri. Additionally, we were invited to give an overview of energy efficiency and BPS to The Energy Professionals Association (TEPA), an association of energy suppliers, aggregators, and brokers – a new audience for NEEP that planted the seeds for new partnerships.

Regarding home energy labeling, NEEP hosted the first meeting of the Community Residential Energy Labeling Cohort for municipal government staff and volunteers who have identified home energy labeling as a priority. The cohort model enables peer-to-peer exchange and more rapid market transformation by bringing together multiple communities and other topical experts that can help communities adopt labeling programs. In the second quarter, ten communities gathered with NEEP staff, a legal expert, and a realtor to discuss labeling policy possibilities. The cohort will meet bimonthly for the remainder of the year.

NEEP is also working with stakeholders to address existing commercial buildings through benchmarking and BPS initiatives by creating resources and providing technical assistance to interested states and communities. Those engaged included the town of Lexington, Mass. and the state of West Virginia – both of which began the process of implementing newly passed benchmarking policies. Assistance included guidance on next steps and setting up an instance of our Building Energy Analysis Manager (BEAM) tool to support data collection, tracking, and reporting. We have been engaged with the Better Buildings Coalition in Massachusetts to provide technical assistance on the development of a statewide BPS. NEEP also worked on a brief to highlight best practices, consideration, and real world examples of equitable BPS policy. A webinar and session at our annual Summit focused on equity in building performance standards and effective community-first stakeholder engagement.

Additionally, we completed an update of the Community Action Planning for Energy Efficiency (CAPEE) tool, adding new resources and areas for consideration to keep it relevant and useful. The tool was used by six new community representatives in June. We began building out resources on the new federal funding made available by the Infrastructure Investment and Jobs Act (IIJA), or Bipartisan Infrastructure Law (BIL), developing drafts of schools- and communities-focused resources, and detailing priority actions and the associated money that could be used to fund them. We also collaborated with stakeholders across the region on an additional BIL resource specifically for rural communities, focused on building capacity and taking advantage of rural-specific grants. NEEP

facilitated a meeting of the Regional High Performance Communities Working Group focused on BIL funds, with a speaker from the U.S. Department of Energy.

NEEP's efforts on building energy rating extend beyond stakeholder engagement and program design to the development of software tools that help facilitate these programs. We currently work on four such projects: the Home Energy Labeling Information eXchange (HELIX), Energy Estimator, Remotely, and Building Energy Analysis Manager (BEAM).

- HELIX: A database to house and track energy labels, HELIX was updated with additional home energy labels, certifications, and solar photovoltaic (PV) records. We continued outreach to users of multiple listing service (MLS) systems and anticipate additional integration with MLS systems in the coming quarter. As part of this project NEEP offers trainings on the tools, and we presented at a Green Loan Roundtable event hosted by the Greater Boston Association of Realtors, demonstrating the value of HELIX to realtors when integrated into an MLS. NEEP also supported CT DEEP in hosting a HELIX training for realtors and has discussed further collaboration.
- Energy Estimator and Remotely: Energy Estimator is a tool designed to generate energy labels based on information accessible to homeowners. Remotely is a NYSERDA project that pairs the Energy Estimator tool with a virtual walkthrough assessment using an iPhone application. In the second quarter, the Remotely team updated the tool based on user feedback, conducted various marketing events, and developed a number of new resources. Two demos were hosted for the pilot group before the tool was launched more broadly in June at an event hosted by 350 Brooklyn. Additionally, during BPA's Clean Energy for Homes Conference, NEEP moderated a panel exploring virtual energy assessments including a demonstration of Remotely. The session was highly attended and attracted contractors interested in testing out the tool. Lastly, the tool is being considered by US DOE as a possible virtual Home Energy Score.
- BEAM: This is a database platform that facilitates compliance tracking and communication necessary for implementing a building performance standard. In the second quarter, NEEP engaged with a number of jurisdictions interested in using the platform and provided demos to Lexington and Newton, Mass., West Virginia, and Ann Arbor, Michigan. Additionally, the cities of Boston, Ann Arbor, and Reno were on-boarded to the platform. NEEP has also been communicating with a number of new interested parties, particularly in smaller jurisdictions. Updates were made to the tool providing jurisdictions the ability to track prescriptive compliance pathways. The BEAM Advisory Committee convened in June to discuss gaps in resources for building performance standards. NEEP identified additional resources that can be developed to aid the region, such as implementation kick-start guides and procedures, and legislative and regulatory pathways to passing a performance standard.

| Progress Toward 2022 Outcomes | % Complete at Q1 |
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| **1. Seven additional jurisdictions develop innovative strategies to reduce carbon emissions, such as zoning requirements, zero energy/decarbonization planning, and zero energy schools**<br><br>**Progress Toward Outcome:** NEEP completed a draft energy plan for the town of Jamestown, Rhode Island to be shared at an advisory committee meeting in July. Once complete, the process and lessons learned from the experience will be utilized to develop an actionable guide for other smaller communities interested in developing an energy plan.<br><br>We also began working with the State Energy Office of West Virginia to develop their energy plan, which will provide a set of near- and long-term strategies to help the state advance their clean energy initiatives – the first of its kind for the state. Also in West Virginia, the city of Charleston completed its first round of building energy benchmarking for the city's public buildings. NEEP is providing assistance to the community to develop a plan that will highlight how energy efficiency measures can be implemented in underperforming buildings. This information will likely get inserted into capital improvement plans and will allow the jurisdiction to make improvements over the next five to 10 years.<br><br>The City Council in Burlington, Vermont unanimously approved a resolution related to the decarbonization of all buildings in the city by 2030. The resolution specifically requires the Burlington Electric Department, in collaboration with other departments, to set forth a suite of policy options to accelerate decarbonization efforts in the community.<br><br>Resources related to the BIL that NEEP began developing this quarter will provide guidance for how communities can fund activities such as climate and energy planning, electrification coaching, and more with new federal money. | 57% |
| **2. Three additional jurisdictions adopt home energy labeling and retrofit policies and programs to improve the energy efficiency of existing homes**<br><br>**Progress Toward Outcome:** Bedford, New York is progressing with expanding its inspection law for multifamily housing units to include inspection result disclosure and/or energy benchmarking. In June, Bedford 2030 presented its draft law to the Town Board. | 33% |

| Progress Toward 2022 Outcomes | % Complete at Q1 |
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| In April, 10 communities from six states in the region joined the first labeling cohort meeting, preparing to adopt a labeling policy. This cohort approach allows NEEP to have a greater impact in its technical assistance by advancing labeling at an accelerated pace. Several participants are slated to take action on the adoption of a labeling program prior to the end of the year. | |
| **3. Three additional jurisdictions adopt policies for existing commercial buildings including benchmarking and building performance standards**<br><br>**Progress Toward Outcome:** On April 9, 2022 Maryland passed the Climate Solutions Now Act of 2022. This bill commits the state to a carbon reduction goal of net zero by 2045. To support this, the bill directs the state to create a building energy performance standard that results in 20% reductions by 2030. Regulations must be adopted on or before June 1, 2023 and the first year of reporting will be in 2025. NEEP engaged with the state of Maryland to provide assistance with the program's implementation, which will likely be ongoing throughout the remainder of the year. Soon after the passage of Maryland's state BPS, Montgomery County, Maryland passed their own BPS.<br><br>In early April, Lexington Massachusetts passed a benchmarking bylaw based on Boston's 2014 BERDO1.0 ordinance. NEEP provided direct technical assistance to the committee to design and gain support for the bylaw, and we will remain engaged with Lexington on implementation of the new policy.<br><br>Lastly, we are supporting the town of Newton, Mass. as they seek to pass a joint benchmarking and building performance standard policy. Cambridge, Mass. is in the process of pushing their building performance standard legislation through city council, which we expect to occur later this year. | 100% |