Retrofit Models

The majority of homes and buildings standing in our communities in 2050 have already been built, so in order to achieve decarbonization goals, we need scalable, cost-effective solutions to retrofit the existing building stock. While homes and buildings are retrofit for energy efficiency, other critical needs can be addressed by improving housing affordability, health and comfort, indoor air quality, and resilience to the impacts of climate change. Across the NEEP region, states and communities are leading with policies and regulations that encourage and often require building upgrades, but retrofitting existing buildings for a low- and no-carbon future is complex, disruptive, and expensive. Replicable technical solutions, program and business models, financing options, and a trained workforce must be rapidly scaled to successfully accelerate the market for building retrofits.

Through the Retrofit Models project, NEEP engages market actors to share and implement successful program, technology, business, and financial models for home and business retrofits at scale. NEEP works with partners to identify barriers to adopting programs, and provides analysis, research, tools and technical assistance to overcome identified barriers and deploy successful solutions. In the residential sector, NEEP spearheads the regional scale-up of whole-home deep energy efficiency and decarbonization models that can be adopted by utility, state, trade assocaitions, or community programs. This work includes adapting and scaling a succesful model, Total Energy Pathways, focused on addressing barriers in program design, workforce development, and financing. In 2022, NEEP will work to transfer elements of the succesful residential work to the small business sector, a perennial hard sector to reach.

NEEP's 2022 Project Outcomes

1. Two energy efficiency programs launch new whole-home/small commercial deep retrofit offerings
2. Two states or jurisdictions launch whole-home energy efficiency and decarbonization programs
3. Three retrofit programs consider equity goals and/or financing solutions for income eligible households and business and/or targeted communities

NEEP's 2022 Strategies and Activities

Stakeholder Engagement and Collaboration: NEEP connects key stakeholders to accelerate the adaptation and adoption of retrofit models for existing homes and buildings. NEEP will monitor and participate in national and international efforts in the building retrofit market, bringing initiatives and successes from the region and beyond to state and national partners through a program of stakeholder engagement and outreach, building interest and momentum for advancing solutions through the region.

- Monitor, communicate, present, and coordinate with national and regional organizations (e.g., Stacked Energy Efficiency Pilot (SEEP), NYSERDA's Residential Market Advisory Group, MA Decarbonization Pilot Advisory Group, EnergyFirst Mortgage Advisory, NASEO, BBI, BPA, Regional Energy Efficiency Organizations, and U.S. DOE)
- Convene and facilitate NEEP's Total Energy Pathway (TEP) Advisory Committee to accelerate the adoption of TEP-like models across the region. Includes quarterly meetings, topical webinars, and email updates. Topics include program design, workforce development, and financing solutions.
- Convene and facilitate NEEP's Commercial Retrofit Cohort, focused on the small business applications of TEP. Includes quarterly meetings, topical webinars, and email updates
- Coordinate Retrofit Models activities with Community Solutions stakeholders, so that home and building performance policies can be supported by appropriate market models.

NEEP's 2022 Strategies and Activities Continued

Technical Assistance: NEEP provides direct technical assistance to implementers such as program administrators, states, and communities that can design and implement whole home and commercial building retrofit solutions.

- Presentations to government staff, relevant committees, and other community members
- Development of mixed-media workforce training resources
- Assist with the development and implementation of state and local energy efficiency policy and financing programs

Tracking and Analysis: NEEP tracks new and developing models at the regional, national, and international level, analyzes data and trends, and promotes these highlights and best practices in various forms to regional partners. NEEP supports time- and resource- limited organizations by bringing the "best of the rest" to regional leaders. This includes:

- U.S. Department of Energy and other initiatives on PAWS (Partnership for Advanced Window Solutions), advanced building construction, and small commercial business
- Customized tracking and analysis based on stakeholder interests

Tools and Reports: NEEP undertakes research and develops reports in order to overcome barriers to accelerated deployment of solutions. This work, based on needs identified through work with stakeholders, includes targeted research, case studies, white papers, and briefs on topics including advanced technologies for retrofits, equity in program design and measurement, sustainable workforce development, and financing options.

- Total Energy Pathways roadmap for the region
- Getting to Scale retrofit brief series, focused on equity and financing models
- Develop a "Retrofit Program in a Box" program – Total Energy Pathways for small commercial buildings
- TEP Online Resource Center – Workforce Training Resources

Thought Leadership: NEEP influences the narrative around whole-home and building retrofits, ways to implement energy efficiency and decarbonization, workforce development, and financing by positioning NEEP and its partners as consistent, reliable expert sources of information and resources.

- NEEP 2022 Summit and other events to share work and influence decision makers
- Develop communications program (blogs, interviews, articles, joint papers) to broadcast work, building a broader cohort of engaged partners
- Highlight and champion solutions in regional and national forums
- Representation on national committees, and regional and state boards and committees

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