



# Home Energy Labeling Information eXchange (HELIX)

Efficient and Resilient Buildings and Communities

## MISSION

*Making the energy efficiency of homes visible and understood at time-of-sale or rental*

## ABOUT THIS PROJECT

The Home Energy Labeling Information eXchange (HELIX) is revolutionizing the valuation of energy in real estate transactions by automating the inclusion of home energy labels and associated data, approved by homeowners, in real estate listings, whether accessed through local Multiple Listing Services (MLS) or portals such as Trulia and Zillow. Providing real estate professionals with access to verified, independent home energy information, enables sellers to better market their properties, empowers buyers to make better-informed investments, and promotes wiser use of home energy, all while being completely voluntary. Home energy labels are a key strategy to establish a market value for energy efficient homes and associated investments to improve energy performance. HELIX is funded by a three-year State Energy Program grant from U.S. DOE (hosted by VT) with state, foundation, and NEEP grant matches. The multi-faceted HELIX team includes organizations and states working to automate the transfer of home energy labeling information to MLS across the region.

## LONG-TERM MARKET TRANSFORMATION GOALS

# 2025

Home energy information is populated in all residential real estate listings across the Northeast.

Lenders, realtors, appraisers in all Northeast states use home energy information to value residential real estate and to support investments to improve energy performance.

# 2030

30% of existing homes and buildings are benchmarked and retrofitted to reduce carbon emissions 50%.

## 2019 PROJECT OUTCOMES

1. By year end, HELIX populates home energy information in 20 percent of residential real estate listings in New England and New York State.
2. Home energy labels in New England and New York property listings increase by 20 percent.
3. HELIX has a viable, self-sustaining revenue model ready to begin in 2020.
4. HELIX is modified to accept and maintain solar data in at least four Northeast states.

# REGIONAL TRENDS & LEADERS

- HELIX has been successfully beta tested in five states (CT, MA, NH, RI, and VT) and is ready for expansion to at least two additional states (e.g., NJ, PA).
- Ten percent of the residential real estate listings in the current HELIX states have adopted home energy ratings and scores which means that buyers have access to reliable energy information
- Based on a recent NEEP survey to real estate professionals, home buyers are increasingly asking for energy efficiency information before buying or renting a home
- Rooftop PV installations has grown extensively across the region. However, underestimation of the value of solar PV in residential property appraisals and the lack of access to reliable information in real estate listings remain significant market barriers to further investment. HELIX will address these by automating the availability of rooftop PV information in property listings to provide the transparency needed for comparative valuation.

## HELIX ATTRIBUTES

Transparency in the real estate market around energy use in homes can help states pursue one of the areas of highest energy use: the building sector. For states with GHG emissions reduction targets, creating an increased demand for energy efficient home improvements is a low-cost way of achieving these goals. By having all of the building data in one database, states can analyze the information to identify trends and create policy or program opportunities to achieve their GHG goals.

- Single consolidated database of energy-related "certification" and "performance" data (see list below)
- Single consolidated database of home energy measures such as solar photovoltaic or thermal installations and heat pump systems
- Links to MLS and data aggregators to populate RESO certification data and solar fields in a MLS - the data can be provided to MLS' via the HELIX API in native RESO Silver Standard format or via direct integration in the MLS software
- Flexible design allowing program oversight of individual auditors or data partners by the program manager
- Flexible permission system with different levels of access rights to the data
- HELIX generates the green addendum, incorporating certifications as well as home energy measures and efficiency features. The Green Addendum is stored on the HELIX Amazon S3 "Simple Storage Service" with a unique link URL recorded in HELIX. HELIX has a built-in API with key based authentication to share this and other information with external systems. HELIX associates an optional expiry date with certifications and labels such as the Green Addendum to prevent dated information from being released to the public.
- Database hosting services
- Database management and maintenance
- Preset and customizable reports
- Shared technical updates across the platform for multi-user benefits
- Repository of compliance data for community policies
- Security and privacy protections for consumers. Privacy protections are implemented at the certification or label level, allowing a subset or all of the home's energy data to remain private. Records or labels opted-out of public release are not shared with MLS' or other external parties.
- Accessibility to community and utility users for analysis and reporting
- Flexibility around database functionality (automated quality assurance, streamlined data reporting)
- Additional technical support available at \$140/hour

# 2019 Strategies with Associated Products, Services and Technical Assistance

## STAKEHOLDER ENGAGEMENT

NEEP will continue to engage stakeholders (state agencies, real estate professionals and appraisers, gas and electric utilities, efficiency programs, building code officials) in a facilitated learning exchange to guide HELIX development, testing, and use.

- HELIX Advisory Committee
- Two topical webinars based on stakeholder interest and needs
- Quarterly presentations and briefings to external stakeholders
- **New** Annual HELIX Stakeholder meeting

## TRACKING & ANALYSIS

NEEP will complete HELIX pilot testing, finalize HELIX as a market-ready resource, and implement a marketing strategy to successfully deploy HELIX in the region and beyond.

- **New** Regional Data and Trends Analysis of HELIX impact in the real estate market

## RESEARCH & REPORTS

NEEP will use the data analysis from HELIX pilot testing to partner with key stakeholders to support successful HELIX deployment beyond the Northeast.

- Research opportunities for HELIX Mid-Atlantic expansion
- Self-sustaining HELIX Revenue and Business Model

## NATIONAL/REGIONAL COLLABORATION

NEEP will help grow market demand for home energy labels through regional/national presentations and conversations, and educational outreach to real estate professionals and appraisers.

- Monitor, communicate, present, and coordinate with national and regional organizations (e.g., NASEO, Home Performance Coalition, Elevate Energy)
- Disseminate U.S. DOE best practice and link states to federal programs and resources
- Engage with stakeholders to contribute to the development of national programs

## TOOLS & GUIDELINES

NEEP will develop strategies and tools, and provide technical assistance to advance HELIX implementation and use.

- Exemplar: Rhode Island's Home Energy Score Pilot and Vermont's integration of HELIX into the MLS
- **New** Create HELIX State Implementation Toolkit
- HELIX [Fact Sheets](#)
- State Technical Assistance to implementing HELIX including solar PV
- **New** Develop an Online Resource Platform
- 10 hours of technical support and consulting

