



# Connecticut's Home Energy Score Initiative

A first-in-the-nation effort with an important role in HELIX

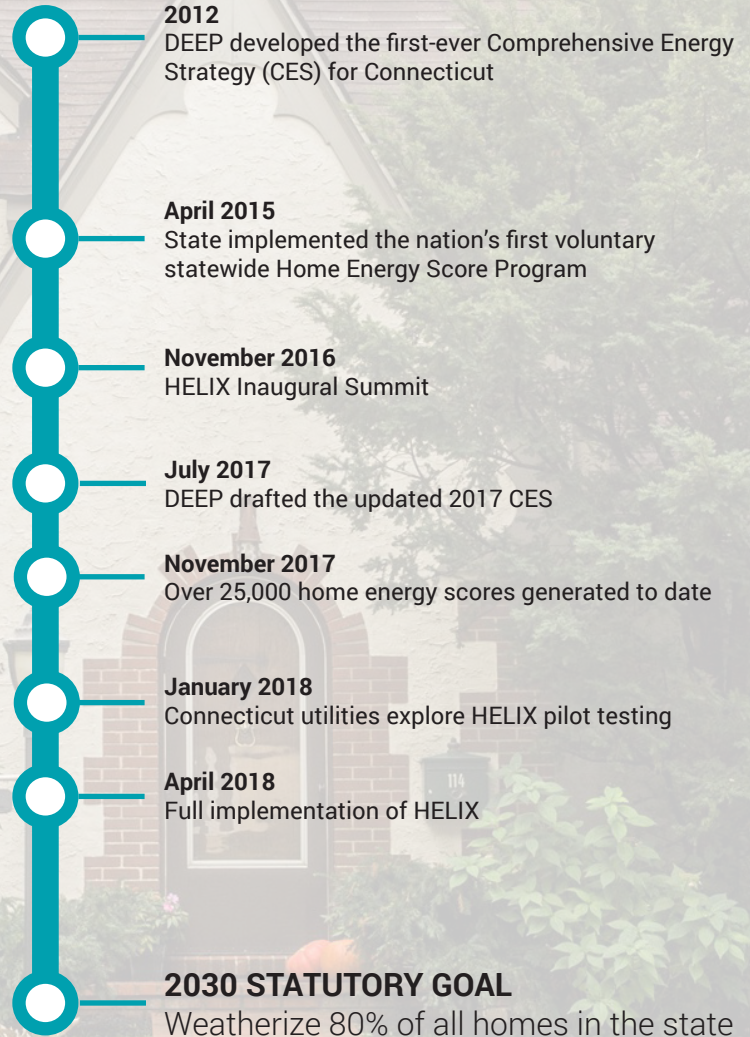
## QUICK FACTS

Connecticut's Home Energy Solutions<sup>SM</sup> program features the nation's first statewide Home Energy Score effort.

Over 25,000 scores have been generated to date since implementation.

Qualified Home Energy Solutions technicians address all energy-saving opportunities, generate Home Energy Scores, qualify homes for add-on measure rebates, and review financing options.

The program helps the state track its progress in meeting a goal of weatherizing 80 percent of homes by 2030.





## The Initiative's Inspiration

Often times, we pay our bills without thinking twice, but preparing for winter and summer peaks are routine for residents expecting higher energy bills during these times. This proves to be a yearly exercise for many residents in New England, mirroring the routine around summer peak demand. While there are some bills we can't control (like monthly rent or mortgage payments), in the case of energy costs, there are things we can do to reduce our monthly payments.

Connecticut residents spend between eight and 36 percent of their household income on energy. According to Operation Fuel's 2016 [report](#), an affordable energy cost burden for a Connecticut resident was estimated to be just six percent of household income. Connecticut residents consume at a relatively low per capita rate and are responsible for 15 percent of the state's energy consumption and 17 percent of greenhouse gas emissions.

What does this mean? There are steps that Connecticut can take to reduce energy costs for its residents. As a national leader in energy efficiency, Connecticut could use this as an opportunity to advance efficiency and healthy homes throughout the state. That's why Connecticut's 2015 [initiative](#) to become the first state to implement the U.S. Department of Energy's Home Energy Score labeling system is a step in the right direction.

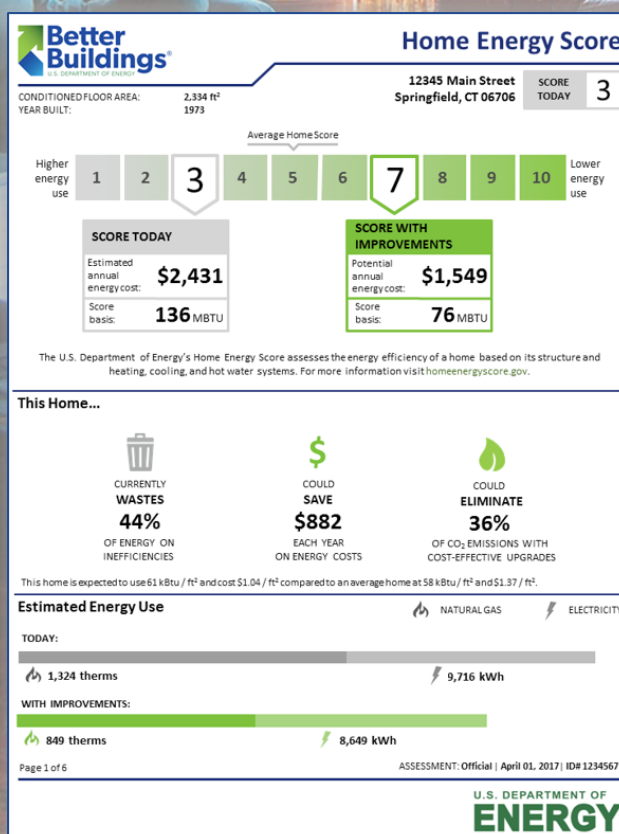


# About Connecticut's Home Energy Score Initiative

DOE's Home Energy Score program provides energy consumption and cost estimates for more homes than ever before. In Connecticut, a Home Energy Score is generated during a Home Energy Solutions visit. The score is based on the home's structure and heating, cooling, and hot water systems, making energy efficiency labels universal across the state. Home Energy Solutions is working to help residential customers better understand their energy costs. It provides them with the ability to take control of their energy consumption and reduce the cost of their monthly bills. The program will eventually help residents in better understanding their own energy consumption and allow utilities to analyze energy data within the residential sector.

During a home's energy assessment, qualified Home Energy Solutions technicians collect data and provide a score on a 1-10 scale, with 10 considered excellent performance. The technicians also provide home facts and recommendations for further improvements, including the estimated annual savings and score associated with those improvements.

The Home Energy Score is one of many energy efficiency programs available through Eversource and United Illuminating via the Connecticut Energy Efficiency Fund, funded by a charge on customer energy bills.





# Connecticut Home Energy Solutions Annual Net Energy Savings



**2015:** 32,346 tons of CO<sub>2</sub> emissions were avoided.

THIS IS EQUIVALENT TO

CO<sub>2</sub> EMISSIONS EMITTING FROM

**3,169 HOMES**

FOR ONE YEAR



GREENHOUSE GAS EMISSIONS FROM

**6,283 VEHICLES**

DRIVEN FOR ONE YEAR



**2016:** 31,183 tons of CO<sub>2</sub> emissions were avoided.

THIS IS EQUIVALENT TO

CO<sub>2</sub> EMISSIONS EMITTING FROM

**3,055 HOMES**

FOR ONE YEAR



GREENHOUSE GAS EMISSIONS FROM

**6,058 VEHICLES**

DRIVEN FOR ONE YEAR





# Connecticut's Aging Housing Stock

**72%**

of houses were built before 1979

**44%**

of houses are **fuel oil** heated

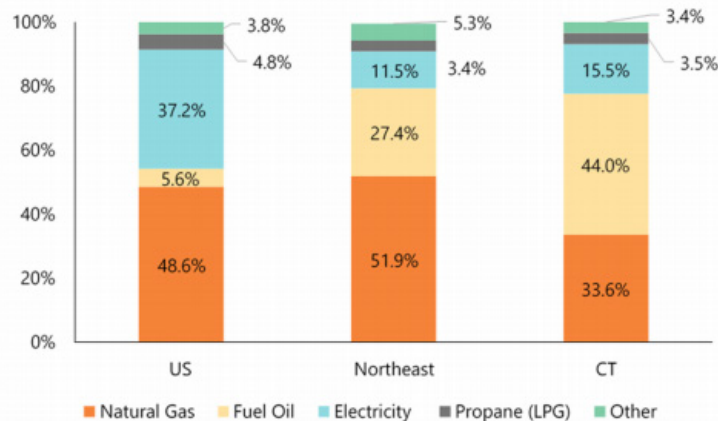
**80%**

of houses are **single family homes**

**322K**

low-income households

**FIGURE B4: Energy Source Used for Home Heating by Percent of Total Households**



Source: U.S. EIA Connecticut State Profile and Energy Estimates, 2017.

**44% of Connecticut housing units rely on fuel oil**, compared to 27.4% regionally and just 5.6% of housing units nationwide.

**21% of Connecticut's carbon emissions came from the residential sector in 2014**, of which 63% was from petroleum (which includes fuel oil and propane).



## Home Energy Labeling Information eXchange (HELIX)

Now that Connecticut has these scores, and continues to generate more, what should the state do with them? How can these scores help homebuyers and renters? The next step for Connecticut's Home Energy Solutions program is to consider including opt-in or opt-out language to enable third parties, such as Multiple Listing Services (MLS), to access the scores. The primary barrier to widespread access to energy information for homes on the market is that there is no system in place to transmit this data directly from sellers trying to market homes to the real estate listings buyers use to compare them. The missing piece of the puzzle is a database that will store home energy information.

The missing piece of the puzzle is Home Energy Labeling Information eXchange, or HELIX. [HELIX](#) is a DOE funded initiative that is working toward developing a database 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 homeowner. The goal of HELIX is to remove the barrier of access to energy information for homes on the market. HELIX will serve as a database for DOE Home Energy Score data and as a conduit for incorporating this information into local MLS while providing appropriate data security and privacy protections.

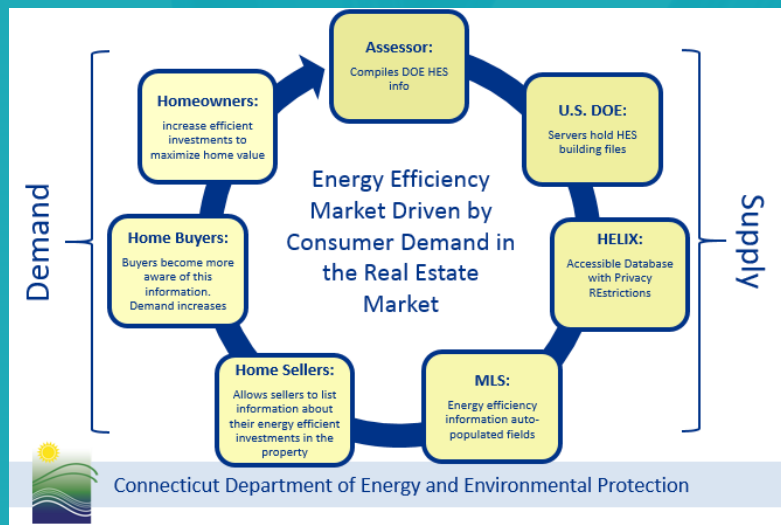
HELIX will make home energy information accessible to local MLS and other market interests (e.g., assessors, appraisers, energy efficiency programs and service providers, lenders, and energy code officials). While HELIX focuses on the Northeast region, it aims to provide a replicable, open-source model that can be used throughout the country. The project will include trainings delivered to real estate professionals as well as continuous engagement with real estate market stakeholders in order to ensure a useful and effective product. The project will culminate in 2018 with full implementation of the HELIX database across the seven-state region.

## Next Steps: HELIX in Practice

To keep up momentum, Connecticut's Department of Energy and Environmental Protection (DEEP) has convened a working group to enable residential energy efficiency information – like the Home Energy Score – to be included in real estate listings. This type of information will be compiled in the MLS, putting future homeowners in a better position to understand the true cost of living in a home.

By collecting home energy scores and storing residential energy data within the HELIX database, this will lead to an increased awareness of and demand for efficient home investments. When a home has an energy score or label, the increased valuation of that home in the market tends to make the home sell faster. It's similar to when you're buying a car and you know the miles-per-gallon of that car – this information doesn't necessarily make or break your decision to purchase the car, but the added information helps you to better understand what will result from your decision. Buying a home is an emotional investment and the home energy score will simply provide a better understanding to homebuyers of what goes on "behind the walls".

As homeowners, buyers, and renters increase their understanding of energy data and the related costs, they'll better prepare for the changing seasons and fluctuating temperatures. Statewide programs like Connecticut's Home Energy Solutions are steps in the right direction to reducing New England residents' energy costs and empowering building owners to market their energy efficiency improvements. Incorporating HELIX into these programs will result in a repository that allows the exchange of energy data generated through efficiency measures to be used in the real estate market, proving to be impactful in driving energy efficiency.





# Interested in Finding Out More?

## Connecticut Resources:

[2017 Comprehensive Energy Strategy](#)

[CT DEEP Home Page](#)

[Home Energy Score | Energize CT](#)

## DOE Resources:

[Home Energy Score Program](#)

## NEEP's HELIX Resources:

[HELIX Home Page](#)

[HELIX One-Pager](#)

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