

EMPRESS

(Energy Metrics to Promote Residential
Energy Scorecards in States)

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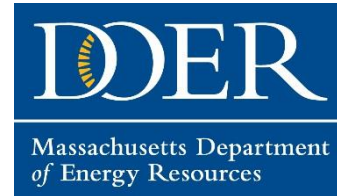


STATE OF RHODE ISLAND

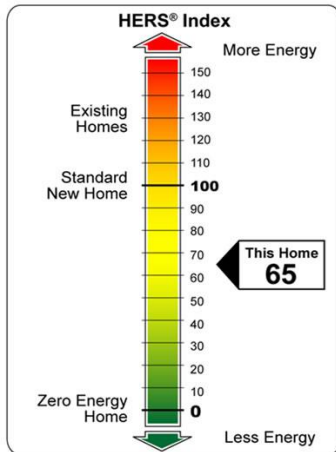
**OFFICE OF
ENERGY RESOURCES**

The Team

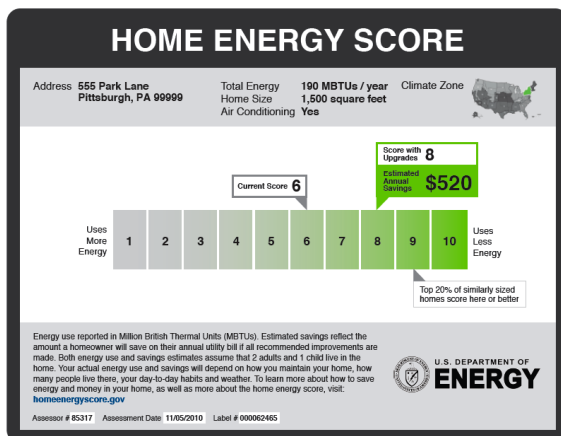
- Rhode Island Office of Energy Resources (OER)
- National Association of State Energy Officials (NASEO)
- Arkansas Energy Office (AEO)
- Massachusetts Department of Energy Resources (DOER)
- Missouri Division of Energy (DE)
- Oregon Department of Energy (ODOE)
- Earth Advantage (EA)
- Energy Futures Group (EFG)
- Vermont Energy Investment Corporation (VEIC)



Background



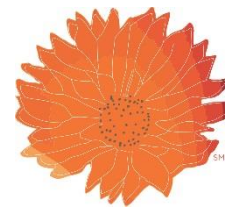
- Home Energy Labels have the potential to transform the residential building market by making energy efficiency visible
- 2 primary systems provide info on home energy performance in the US:
 - Home Energy Rating System (HERS) from the Residential Energy Services Network (RESNET)
 - Home Energy Score (HEScore) from the US Department of Energy (DOE)
- These 2 systems calculate and represent energy performance quite differently – leading to market confusion



More Background

- **Scores vs Certifications:**

- LEED
- Energy Star
- HERS
- HES
- National Green Building Standard
- Living Building Challenge
- Etc.



LIVING
BUILDING
CHALLENGESM

Background Continued

- In the absence of transparency mandates, it's challenging to reach widespread market adoption of home energy scores/labels
- Many EE program administrators are also reluctant to incorporate scores into their programs without receiving attributable savings credit

New policies & regulatory approaches are needed to promote/incentivize the use of energy scores

Goals of the DOE SEP Grant

Goal 1: More closely align HERS and HEScore, so ratings and performance data are comparable and translatable

Goal 2: Develop and promote model policies and programs that encourage the voluntary use of residential energy data

Goal 3: Educate State Energy Offices, the real estate market, and other stakeholders on the policies, programs, processes, and market-facing information associated with a harmonized approach to home energy labeling

Key Tasks: Goal 1 (Harmonization)

- Facilitate conversations between RESNET, DOE & other key stakeholders to reduce market confusion
- Solidify a commitment to work towards standardizing labeling tool outputs
- Produce a final report with recommendations
 - Common reporting standard
 - Harmonized information output
 - Potential roadblocks and solutions for establishing EnergyPlus as a common modeling engine for both systems
 - Home energy labeling pilot results from Oregon and Missouri



Harmonization Options for Discussion

Harmonization Options	Presentation Option	Technical Options			
		A. Common Reporting “Yellow EnergyGuide Label”	A. Align Inputs and Assumptions	B. Expanded Test Suite to Validate Software for Existing Homes	C. APIs to DOE2 for Common Metrics
Description	HERS and HES generate a common report in a standardized format	Review key differences and similarities between HERS and HES, and recommend common inputs and assumptions	Similar to BESTEST and BESTESTEX, HERS and HES software can be compared to suite of representative/actual existing homes to determine “accuracy”	HERS and HES both use APIs to access DOE2 in order to produce the same site based energy consumption estimates from which annual MMBtu and energy costs can be calculated	HERS and HES both use APIs to access EnergyPlus as their calculation engine to produce the same site based energy consumption estimates from which annual MMBtu and energy costs can be calculated

Key Tasks: Goal 2 (Policies/Programs)

- **Convene stakeholder roundtables – identify ways to advance home energy labeling and transparency through policy, & understand current policy activities**
- **Review legal issues associated with energy policy transparency**
- **Review existing national, state, and municipal policies and regulations**
 - Fannie Mae requirements for energy efficient mortgages
 - statewide legislation promoting energy labeling
 - utility regulations that encourage transparency
- **Develop a policy toolkit to include models of policies, legislation, regulations, and governance frameworks for states**

Key Tasks: Goal 3 (Education)

- Disseminate the policy toolkit to a wide group of stakeholders including state energy offices, governor's energy advisors and state legislative personnel
- Share policy toolkit and harmonization recommendations at conferences in 2018, and through webinars, newsletters & websites



Estimated Timeline



- 2 Year overall project timeline
- Kick-off meeting was held on Jan 13 2017
- Stakeholder roundtables: primarily during 1st yr
- Policy Toolkit: end of 1st yr
- Harmonization recommendations: mid-late 2nd yr
- Toolkit & Recommendation dissemination throughout 2nd yr

Tentative Conferences

2017 NASEO Annual Meeting

2017 RESNET Conference

2017 Home Performance Conference

2017 ACEEE Market Transformation Symposium

2017 ACEEE Finance Forum

2017 DOE Better Buildings Summit

2017 USGBC GreenBuild

2018 NASEO Winter Meeting

2018 RESNET Conference

2018 Home Performance Conference



How to Be Involved

1. Let us know if you're interested in participating in our stakeholder roundtables
2. Fill out our handout!
3. Help us share our project deliverables



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