Home energy labeling policy
EMPRESS

NASEO Webinar – EMPRESS Home Energy Labeling Policy Guidebook
November 1, 2018
The EMPRESS 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)
Presenters

- Kaci Radcliffe, Energy Analyst, Oregon Department of Energy
- Alissa Whiteman, Energy Efficiency Program Manager, Massachusetts Department of Energy Resources
- Becca Trietch, Administrator of Energy Programs, Energy Efficiency, Rhode Island Office of Energy Resources
- Andy Popp, Manager of Energy Efficiency, Division of Energy, Missouri Department of Economic Development
Energy Metrics to Promote Residential Energy Scorecards in States (EMPRESS)

- EMPRESS is a State Energy Program funded grant
- GOALS:
  1. Developed recommendations for consistent elements to be included in home energy labeling initiatives
     - E.g.- GHG impact, Mbtu/year, total energy cost, date of issue, etc.
  2. Encourage Home Energy Score (HES) and Home Energy Rating System (HERS) to use a single energy modeling engine to promote consistency and reduce confusion

Created by the EMPRESS Team

The EMPRESS (Energy Metrics to Promote Residential Energy Savings) Project is a comprehensive, multi-state initiative that seeks to improve energy efficiency by providing better support to the market for residential energy labeling and handing over tools to state and local governments to help them more effectively.

Project Partners include: the Rhode Island Office of Energy Resourc...
How can the EMPRESS project help me?

- The EMPRESS team has compiled:
  - Background information on Home Energy Score and Home Energy Rating System, including cost
  - Sample legislation and ordinances
  - Pros and cons of voluntary and mandatory approaches
  - Recommendations for elements that should be on all labels
  - Examples of labels used in other jurisdictions
  - Workforce identification and training recommendations
  - Information on working with real estate professionals
  - [http://empress.naseo.org](http://empress.naseo.org) for more
Resources

- EMPRESS: http://empress.naseo.org

- HELIX: https://neep.org/home-energy-labeling-information-exchange-helix

- Home Energy Information Accelerator: https://betterbuildingsinitiative.energy.gov/accelerators/home-energy-information

Learn more

Thank you

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Home Energy Scoring

Bringing transparency and value to buyers and sellers. Scores communicate information, but labeling is inconsistent.

A Solution that Serves the Market

- **Owners:** Value and potential for energy upgrades
- **Buyers:** Transparency, added metric to assess home
- **Contractors:** Meaningful, consistent information
- **Real estate professionals:** Credible information on the listing
Statewide Framework

• Market based delivery • Enabling local action • Statewide Consistency •

Oregon Administrative Rules
• Outline requirements for residential and commercial energy performance scores
• Training requirements for licensed home energy assessors and define requirements for score systems

License and Training
• Must obtain Home Energy Assessor certification to issue scores
• Assessors complete training on USDOE Home Energy Score, Oregon Weatherization, and other approved alternates.
• Specialized training in the system used for issuing scores
Statewide Framework

Stakeholder Panel

• Support department’s rulemaking process for updating program requirements and administrative rules.

• Review score system applications, and recommend approval or denial to ODOE's director.

• Recommend criteria for approval of training and certification programs or work experience for entities proposing score systems.

• Recommend criteria for content and formatting of a standard energy measures label to be included in home energy performance score reports.
Statewide Framework

Home Energy Scoring reports must include:
(a) The home energy performance score and explanation of the score
(b) Estimated annual energy use in retail units of energy, by fuel type
(c) Estimated annual energy generated on-site in retail units of energy, by type of fuel displaced
(d) Estimate of monthly or annual energy cost in dollars, by fuel type, based on utility retail
(e) Current average annual utility retail energy price in dollars, by fuel type, used to determine the annual energy cost
(f) Comparison of score that provides context for the range of possible scores, e.g., home with similar consumption, built to same code, or similar energy efficiency upgrades
(g) Name of the entity that assigned score and license number
(h) Date the assessment was performed
Local Adoption & Leadership

City of Portland Home Energy Score
• Require sellers of single-family homes to disclose Home Energy Report and Score at time of listing.
• Green Building Registry to auto-populate scores in the MLS
• City of Portland Home Energy Score website: www.pdxhes.com
• 6,600 scores since November 2017
Tackle Energy Waste Today!

Enjoy the rewards of a comfortable, energy efficient home that saves you money.

- Get your home energy assessment done!
- Select a contractor (or two, for comparison) and obtain bids. Check out www.energystar.gov or www.energytrust.org.

* Practical Energy Improvements Complete Now or Later

To achieve the "score with improvements," all recommended improvements listed below must be completed. Improvements all have a simple payback of ten years or less and may be eligible for mortgage financing. For more detailed explanation of costs and payback, please get a bid from a contractor.

How much energy does this home generate?

Electric: 12,000 kWh per year $930
Natural gas: 0 therms per year $0
Other: 776 quarts per year $2,002
Total energy costs per year $2,932

This home's estimated energy costs

Score today: 1
Score with improvements: 9
Estimated energy savings with improvements: $1,672 per year
Estimated carbon reduction with improvements: 57%

How much will I save by:
- Insulating attic
- Insulating walls
- Upgrading water heater
- Replacing furnace
- Replacing air conditioner
- Upgrading lighting

Electric: $500
Natural gas: $100
Other: $100
Total savings $700

This home's carbon footprint:

15
9.2
0

What should I do to reduce my carbon footprint? Between now and 2030, Portlanders should reduce carbon pollution per household by 9 metric tons per year to reach our climate goals.

- Actual savings may vary based on current behavior and other factors.
- Estimated energy costs were calculated based on current utility prices ($0.14/kWh for electricity, $1.30/therm for natural gas).
- Carbon footprint is based on estimated home energy use. Carbon emissions are estimated based on utility and health-related emissions factors provided by the Oregon Department of Energy.

Looking for low-cost ways to cut energy waste, boost your comfort and lower your energy bills? Visit the resources below to learn about easy changes you can make today:

www.energytrust.org/tips and www.communityenergyproject.org/services
Looking Forward

EMPRESS Toolkit
- Local adoption with state coordination
- Time-of-listing policy, voluntary action
- Key labeling components to inform scorecard

RFP for Statewide Implementation:
- Proactive outreach to interested cities
- Ensure consistency across state
- Training and mentoring
- Quality Assurance
- Outreach and messaging
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Oregon Department of Energy
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Home Energy Scorecards in Massachusetts

11/1/18

Alissa Whiteman
Energy Efficiency Residential Programs
Mass. Department of Energy Resources (DOER)
Presentation Topics

1. MA Home Energy Scorecard Legislation
2. Experience with scorecards – Home MPG
3. Moving toward the future - scorecard design and metrics
Massachusetts’ Energy Leadership

• Global Warming Solutions Act: reduce GHG 25% by 2020; 80% by 2050 (1990 baseline)
• Ranked #1 by ACEEE for eight straight years (2011-2018) for our energy efficiency programs and policies
• All EE offered under 1 statewide brand – Mass Save
• Aggressive EE goals:
  • 2016-2018 EE Plan will deliver $8 billion in benefits
  • Proposed 2019-2021 Plan will deliver over $8 billion in benefits
• 52,000 jobs and growing
Building Sector Provides Substantial Opportunities to Reduce GHGs

How do we reduce emissions in the residential building sector?
• Accelerate home energy efficiency improvements; and
• Improve the energy performance of new construction.

Mass Save® has succeeded with “low-hanging fruit” of energy efficiency:

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
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<tbody>
<tr>
<td># of Full HEAs</td>
<td>100,539</td>
<td>76,758</td>
<td>83,873</td>
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<tr>
<td>Lighting #</td>
<td>1,796,239</td>
<td>896,795</td>
<td>1,062,423</td>
</tr>
<tr>
<td># Customers who Install Measures</td>
<td>35,284</td>
<td>29,900</td>
<td>25,360</td>
</tr>
<tr>
<td>Air Sealing Jobs #</td>
<td>30,849</td>
<td>25,894</td>
<td>22,910</td>
</tr>
<tr>
<td>Closure Rate</td>
<td>35.1%</td>
<td>39.0%</td>
<td>30.2%</td>
</tr>
</tbody>
</table>

2014 MA GHG Emissions by Sector
74.5 MMTCO$_2$e

- Transportation 39.4%
- Electricity 12.4%
- Industrial 10.1%
- Commercial 9.7%
- Residential 18.5%
- Other (agri., waste, NG trans./dist.): 2.5%
Why Scorecards in Massachusetts?

• Create Transparency for Consumers
• Help drive residential energy improvements, which will:
  ➢ Lower energy bills for homeowners & renters
  ➢ Improve home values; and
  ➢ Reduce greenhouse gas emissions
Overview of Scorecard Proposal

What did the bill Propose?

Authorizes DOER to develop a home energy scorecard program for residential homes (1-4 units) that requires:

1. Scorecards to be produced following any home energy assessment in MA;
2. Scorecards to be provided to potential buyers during a home sale.

Energy Performance Rating (0-300)

Potential Customer Savings
MA Department of Energy Resources (DOER) conducted a pilot program in 8 municipalities with the Mass Save home audit program, between 2013-2014.

Home energy scorecards were provided in conjunction with a homeowner’s Mass Save audit and again after making efficiency improvements.

The Results:
• 3,800+ homes received scorecards
• 1,593 homes implemented energy efficiency improvements, which resulted in:
  ➢ 32,000 MMbtus/year or $650,000/year in energy savings; and
  ➢ reduction in each homes annual energy consumption by an average of 20 MMbtus or $400+/year
• Increased energy efficiency implementation:
  • 25% more households completed installations over Mass Save (business as usual);
  • 25% more savings per household over Mass Save.
• The vast majority of surveyed homeowners agreed
  • a scorecard should be included with an audit
  • a scorecard would be useful in the home-buying process
Scorecard Design & Metrics

• Asset rating (not operational)
• Energy use metric: MMBtu/year
• Carbon footprint: carbon metric tons/year
• Compared to area average & expected score after implementing recommended measures
• Expected cost savings associated w/recommendations
• Post-implementation scores based on what was implemented & compared to prior scores
Oil Home in Wilbraham, MA

Year Built: 1956  Sq Footage: 2,891ft²  Heating Fuel: Oil
Bedrooms: 5

Score BEFORE: 195
Score AFTER: 156
Est. Energy Savings: $908/year
Est. GHG savings: 3.5 tons/year

Total Mass Save incentive of $3672 for:
21 CFLs, and 1 LED bulb
11 hours of air sealing
Wall insulation ($2,740 from Mass Save)

Homeowner cost:
This household** - $913
Low-income household - $0
Moderate income household* - $274

2017 Zillow Home Value: $293,000

* Mass Save covers up to 90% of insulation costs, up to $3,000 for households at 61-80% of median income
** Mass Save covers up to 75% of insulation costs, up to $2,000 for households above 81% of median income
Your Massachusetts Home Scorecard

This scorecard compares home energy use and carbon footprint to an average home in MA, and shows improvements based on recommended technology.

**ABOUT**
Address
123 Main St., Whately, MA, 01903

Year Built
1850

# of Bedrooms
3

Assessment Date
N/A

**YEARLY ENERGY USE**
Electricity
3,613 kWh

Fuel Oil
1,324 gallons

**YEARLY COSTS & SAVINGS**
$4,343
Pre-upgrade Energy cost per yr

$2,798
Post-upgrade Energy Cost per yr

$1,545
Estimated Energy Savings per yr

**HOME ENERGY USE**
This shows the estimated total energy use (electricity and heating fuel) of your home for one year. The lower the energy use, the better!

- mmBtu/yr
- Worse: 300
- Better: 0
- Energy Use before improvements: 205
- Energy Use after recommended improvements: 122

**HOME CARBON FOOTPRINT**
This score shows the estimated carbon emissions based on the annual amounts, types, and sources of fuels used in your home. The lower the score, the less carbon is released into the atmosphere to power your home.

- ton/yr
- Worse: 20
- Better: 0
- Footprint before improvement: 16.4
- Footprint after recommended improvements: 10.2

Estimated percentage of energy use by fuel type:

- 4% Propane
- 90% Fuel Oil
- 6% Electricity

Estimated average carbon footprint (tons/yr):

- 93% Fuel Oil
- 7% Electricity

* Estimated costs and savings. Actual energy costs may vary and are based on many factors such as occupant behavior, weather and utility rates. Please see next page for more on the EPS calculation.

Projections for score improvements and energy savings are estimates based on implementing all of the recommended energy efficiency improvements. Ref# 91997.
Where are we now with scorecards in Massachusetts?

• DOER is requiring scorecards to be integrated into the Mass Save home audit program
  ➢ “before” and “after” EE implementation

• DOER to develop scorecard design & requirements with input from Mass Save Program Administrators

• Scorecards electronically provided to DOER on a quarterly basis

• Current MA Administration plans to re-file scorecard legislation in December
Thank You!

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The EMPRESS Team

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FUNCTIONAL AREAS for OER

- Electric & Gas
- Energy Efficiency
- Renewable Energy
- Heating
- Transportation
- Governor’s initiatives
CLEAN ENERGY FUTURE

1. Efficiency
2. Clean Energy
3. Electrification
Pilot Delivery of Home Energy Scores

nationalgrid
HERE WITH YOU. HERE FOR YOU.

HOME ENERGY SCORE

1. Install Energy Saving Products
2. Test Insulation
3. Look for Drafts
4. Check Appliances & Equipment

What to Expect from a No-Cost Home Energy Assessment

Install energy saving products like LED bulbs, thermostats, and low-flow showerheads during your assessment at no cost.

Identify areas that may need additional insulation. Adding insulation is an effective way to boost comfort and reduce heating and cooling costs.

Look for areas where your home might be leaking air, including your home's walls, electrical panels, and unfinished basements.

Inspect the condition of your heating, water heating, and ducting equipment, as well as your appliances. Equipment costs efficiently as it ages.
A waiver form is used to get permission from building owners to share a home’s score
Remaining Question:

Will the Energy Efficiency Program Administrator see value in delivering these scores?

If not, how will we get many homes scored?
To influence the market broadly, information at time of listing is critical.
Beta-testing HELIX in Rhode Island
Connecting MLSs throughout the country
Training Real Estate Professionals & Appraisers
So they can help the market understand energy use & costs in buildings
Check out the EMPRESS Website

- Creating a start-up/implementation plan
- Defining what should be on a label
- Selecting a software/IT path
- Training professionals to deliver labels
- Educating Realtors & Appraisers
- Linking labels to MLSs

http://empress.naseo.org/
QUESTIONS?

Becca Trietch,
Energy Efficiency Program Administrator
Rhode Island Office of Energy Resources
becca.trietch@energy.ri.gov
www.energy.ri.gov
As the state’s energy office –
The Missouri Division of Energy assists, educates, and encourages Missourians to advance the efficient use of diverse energy resources to drive economic development, provide for a healthier environment and to achieve greater energy security for future generations.
Missouri Landscape

- Relatively low utility rates.
- Home rule state.
- No statewide energy codes.
- No Public Benefit Funds for EE/RE
• Need local data to reflect market value of EE homes
• Need data to factor EE into lending decisions.
• Need greater knowledge of the EE market to have incentive to build green
• Need local data to reflect market value of EE homes

BUILDERS
REALTORS
BANKERS
APPRaisERS
Why Missouri Home Energy Certification (MHEC)?
Why Missouri Home Energy Certification (MHEC)?

- Decrease marketplace confusion.
- Increase the level of awareness.
- Provide meaningful recognition.
- Recognize both new and existing homes.
- Make it voluntary.
MHEC Highlights

- Involved stakeholders.
- Incorporates existing national and local residential EE programs to create a level of consistency with a single platform.
- Recognizes both new homes and existing homes.
MHEC Program Overview

- Both new and existing single-family homes are eligible.
- Two certification levels: Gold and Silver.
MHEC Paths for Gold Certification

An eligible home must achieve one of the following:

• Score of 8 or greater on the HEScore.
• Score of 65 or less on the HERS Index.
• Achieve the equivalence of the 2012 IECC for climate zone 4.
• Receive a Columbia Water & Light Efficiency Score backed by a HES of 8 or greater.
• ENERGY STAR™ Certified homes (after January 1, 2017).
MHEC Paths for Silver Certification

An eligible home must achieve one of the following:

• All cost effective improvements in HEScore have been implemented.

• 20 point decrease on the HERS Index.

• 90% efficiency rating on the CWL Efficiency Score.

• 20% energy savings as modeled by an approved program or approved modeling software.
Missouri Certified Home Energy Auditors

Application Form & Instructions:
energy.mo.gov/energy/hea
MHEC Next Steps

- Work with Investor-Owned and Municipal Utilities to align energy efficiency programs.
- Reach out to realtors, inspectors, appraisers, lenders and homebuilder organizations.
- Work with residential energy stakeholders to overcome technical and market barriers.
- Upgrade application platform to allow for auto-download of information - make it easy.
Sales Premiums and Faster Sales

- Homebuyers are willing to pay more for energy efficient homes.
- Studies show a sales premium of
  - 2-13% for designated EE homes\(^1\), \(^2\), \(^3\), \(^5\), \(^8\), \(^9\), \(^10\), \(^11\)
  - Results in $3,400 to $8,800 premium\(^4\), \(^6\), \(^7\), \(^8\), \(^9\), \(^10\), \(^11\)

Home Energy Checkups

- Analysis of a home’s energy efficiency.
- Great place to start when trying to decide what EE upgrades will be most effective.
- Allows for comparative buying based on energy performance.
- Generally required for EE mortgages and other EE financing opportunities.
- Many kinds, but most widely used and recognized are the HERS Index and HEScore
Home Energy (HEScore)

- Developed by Department of Energy
- Assesses energy-related assets to measure efficiency.
- Scale is set to local conditions, where 5 is the average home in each local area.
- 1-10 scale – high scores mean more efficient
- Works well for existing single family homes, townhomes, and duplexes.
Home Energy Rating System (HERS) Index

- Developed by the Residential Energy Services Network (RESNET)
- HERS Rater assesses home and compares data against a “reference home”
- Great tool for builders and code compliance
- Scale of 0-150
Green MLS

- Uses “green” data entry fields to identify green home features and certifications.
- Aims to increase EE and the use of RE by introducing information into the home buying process.
- The ability to value and educate on high performing homes will increase market penetration of high performing homes.
MLS with No Green Fields

- Add certification/ratings and upgrades made in the comments or "remarks" section.
- Upload verifying documents from homeowner as an attachment
- Advocate for green field adoption on your MLS.
Green MLS

Buyer: Provides reliable EE information so that it can be a decision point in purchases

Appraiser: Provides specific EE data to reflect in market value of EE homes

Lender: Provides data to factor EE into lending decisions

Builder: Provides incentive to build green
Appraisal Institute’s (AI) Green Addendum

• Information includes EE and RE features, which can be used by appraiser to form a more accurate valuation of property.

• Recently updated for ease of use and consistency between other agencies.
# Green Addendum: Energy Labels

<table>
<thead>
<tr>
<th>Energy Label</th>
<th>RESNET’s HERS Rating (0 to 150):</th>
<th>47</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□ Sampling Rating</td>
<td></td>
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<tr>
<td></td>
<td>□ Projected Rating</td>
<td></td>
</tr>
<tr>
<td></td>
<td>☑ Confirmed Rating</td>
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</tbody>
</table>

| DOE’s Home Energy Score | Estimated energy savings for this home: $\text{___}/\text{year} \quad \text{___} \text{ckWh rate dated} \text{___/___/___} 
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Score (1 to 10): ______ | Energy Savings includes electricity, heating & Cooling. 
|                         | Score above five indicates energy costs are expected to be lower than average local home. Home Energy Score estimates energy cost based on state average energy rates and the home’s energy features. |
| □ Official Score        | 
| □ Unofficial Score      | 

<table>
<thead>
<tr>
<th>Other Energy Score: Range ( ___ to ___):</th>
<th>Estimated energy savings: $\text{<em><strong>}/\text{year} \quad \text{</strong></em>} \text{ckWh rate dated} \text{<em><strong>/</strong></em>/___}</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Describe energy label system:</td>
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</table>

<table>
<thead>
<tr>
<th>Date Verified:</th>
<th>Score or Rating Version:</th>
<th>47 HERS</th>
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<tr>
<td>6/29/2017</td>
<td>Organization URL:</td>
<td><a href="http://www.resnet.us/">www.resnet.us/</a></td>
</tr>
<tr>
<td></td>
<td>□ <a href="http://www.homeenergyscore.gov">www.homeenergyscore.gov</a></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>ABOVE VALID ONLY IF CHECKED:</th>
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</thead>
<tbody>
<tr>
<td>□ Verification reviewed on site</td>
</tr>
<tr>
<td>□ Verification attached to this report</td>
</tr>
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</table>
Okay. So how do we make it easy?
Green Building Registry™

Search for green and energy efficient data on Missouri homes

Enter the address you're looking for:
- Street
- Unit, apartment, suite, etc.
- City
- State
- Zip Code

SEARCH
Green Building Registry™

- Data solution that provides EE data for home at time of sale.
- Utilizes information from utilities, regional EE programs, PACE loans, and home energy ratings.
- Does not contain personal information such as homeowner name, etc.
- Data accessible to real estate agents, home buyers, and home appraisers.
**Green Building Registry™**

**MISSOURI HOME ENERGY SCORECARD**

**HOME PROFILE**
- **LOCATION:** 2710 NE 864th Ave
- **Ft.**
- **HEATED FLOOR AREA:** 1,742 sq. ft.
- **NUMBER BEDROOMS:** 3

**ASSESSMENT**
- **ASSESSMENT DATE:** 07/29/2019
- **SCORE EXPIRATION DATE:** 07/29/2020
- **ASSessor:** Mary Hopkins
- **License #:** 315682

**This Home's Score:** 72 out of 150

<table>
<thead>
<tr>
<th>This Home's Estimated Energy Costs</th>
<th>$1,589.00 PER YEAR</th>
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</table>

**HERS® Index**
- **Score:** 72
- **Date:** 07/29/2019

**MISSOURI HOME ENERGY SCORECARD**

**HOME PROFILE**
- **LOCATION:** 3614 W 57th Ave
- **Ft.**
- **HEATED FLOOR AREA:** 1,106 sq. ft.
- **NUMBER BEDROOMS:** 3

**ASSESSMENT**
- **ASSESSMENT DATE:** 07/22/2016
- **SCORE EXPIRATION DATE:** 07/22/2017
- **ASSessor:** Mary Hopkins
- **License #:** 315682

**This Home's Score:** 3 out of 10

<table>
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<th>This Home's Estimated Energy Costs</th>
<th>$1,454.00 PER YEAR</th>
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**WHAT DOES THE SCORE MEAN?**
- **Home Energy Score** is based on a 1-to-10 scale. A score of 10 indicates a very energy-efficient home with energy costs that are below average, while a score of 1 indicates a very energy-inefficient home with energy costs that are above average.

**HOW MUCH ENERGY IS THIS HOME LIKELY TO USE?**
- **Electricity:** 1,145 kWh/yr
- **Natural Gas:** 273 therms/yr
- **Other:** 0 gal/yr

**TOTAL ENERGY COSTS PER YEAR:** $1,454

**WHAT DOES THE SCORE MEAN?**
- **Homescore:** The score is based on a 1-to-10 scale. A score of 10 indicates a very energy-efficient home with energy costs that are below average, while a score of 1 indicates a very energy-inefficient home with energy costs that are above average.

**HOW MUCH ENERGY IS THIS HOME LIKELY TO USE?**
- **Electricity:** 1,321 kWh/yr
- **Natural Gas:** 613 therms/yr
- **Other:** 0 gal/yr

**TOTAL ENERGY COSTS PER YEAR:** $1,589

**WHAT DOES THE SCORE MEAN?**
- **Home Energy Score** is based on a 1-to-10 scale. A score of 10 indicates a very energy-efficient home with energy costs that are below average, while a score of 1 indicates a very energy-inefficient home with energy costs that are above average.

**MAKE THE MOST OUT OF YOUR NEW HOME!**
To learn more about ways to save energy visit:
Energy.mo.gov

**MAKE THE MOST OUT OF YOUR NEW HOME!**
To learn more about ways to save energy visit:
Energy.mo.gov
SUMMARY

• The challenge

• Outreach is key – communicate - educate

• Every stakeholder is critical.
For More MHEC Information

Visit our program webpage:

http://energy.mo.gov/energy/mhec or
email mhec@ded.mo.gov

Contact:
Andy Popp
(573) 751-6981
andy.popp@ded.mo.gov