



ENERGY DISCLOSURE POLICIES: How to Gain Traction

February 27, 2011



Richard Faesy, Energy Futures Group

Webinar Overview

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- Introduction (Richard Faesy)
- Disclosure Policies Overview (Caroline Keicher)
- The Austin Experience (Tim Kisner)
- The Vermont Experience (Richard Faesy)
 - Effective Strategies
- Q&A

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Caroline Keicher

Institute for Market Transformation

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Tim Kisner

Austin Energy

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Richard Faesy

Energy Futures Group

The Vermont Experience

Energy Futures Group Consulting

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Areas of Expertise

- Program Design
- Policy Development
- Building Codes
- Evaluation
- Cost-Effectiveness

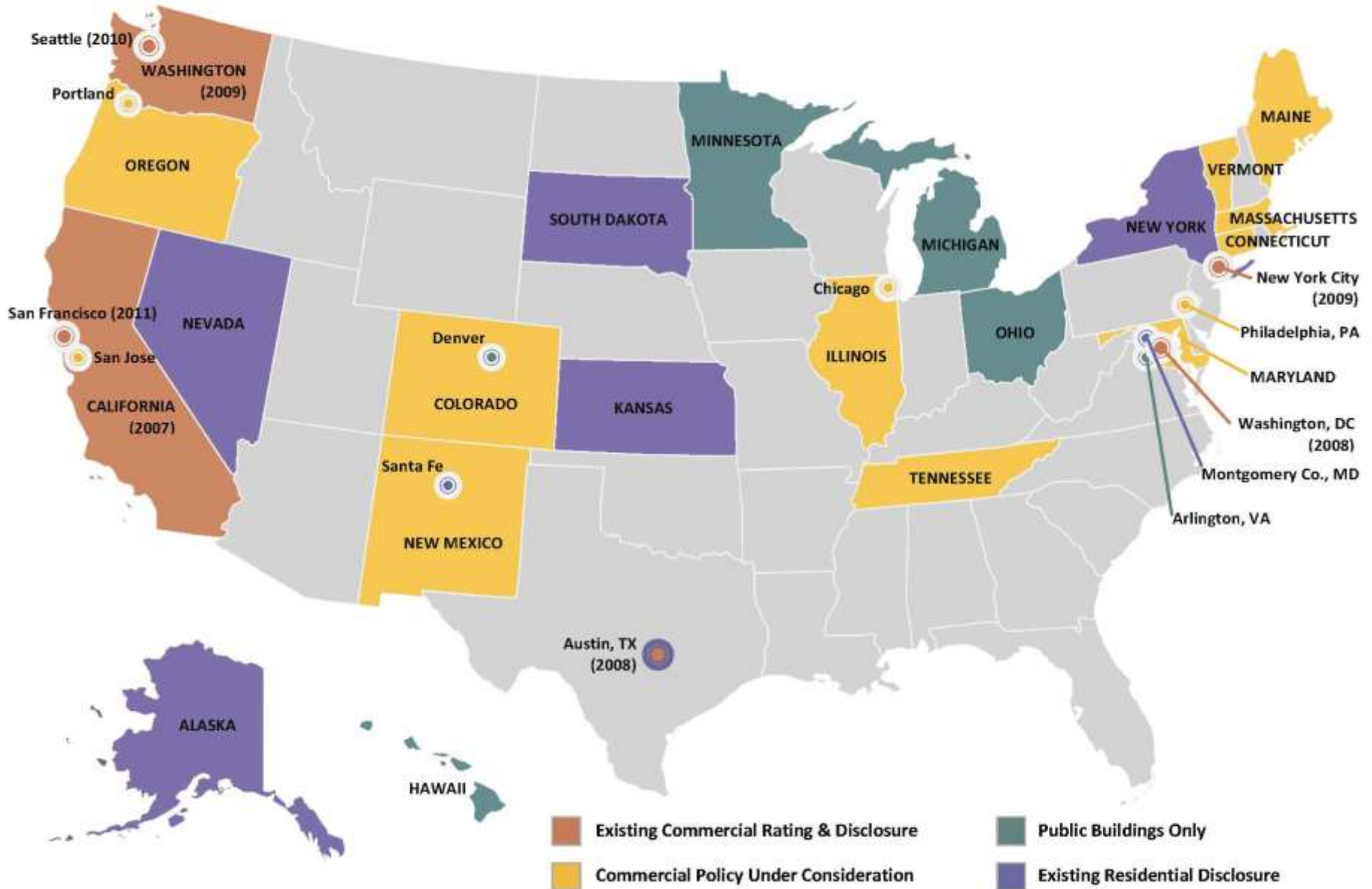
Range of Clients

- Government Agencies
- Advocates
- Regulators
- Utilities

Clients in more than 15 states/provinces plus regional, national and international organizations.

U.S. Building Rating and Disclosure Policies

For more information, please contact Caroline Keicher, Institute for Market Transformation at (202) 525-2883, caroline@imt.org
To access this document online, see www.imt.org/rating or www.buildingrating.org



Vermont Background

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- HERS ratings since 1987
 - ▣ Primarily for residential new construction
 - ▣ 1990s efforts at mandatory HERS disclosure failed
- Early 1990's – Burlington time of sale upgrade ordinance for rental properties
- 2009 – Some legislative discussions about disclosure, but legislation died
- 2010 – Nothing
- 2011 – H.57 established a Building Energy Disclosure Working Group
- 2012 – S.143 & H.497...



Vermont Highlights

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- Simplified rating tool
 - ▣ Opposition historically has been around rating cost
 - ▣ Offering a rating for as low as free eliminates this argument
- Timing
 - ▣ Simplified rating disclosure prior to first listing
 - ▣ Second, more detailed “audit” at time of offer strongly considered
- Consumer protection
 - ▣ Position benefits around buyer protection
- Residential focus
- Appraisal-driven
 - ▣ Appraisers need a way to value energy in the marketplace
- Working Group consensus

Disclosure Rating - Core Principles

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1. Reasonable cost to end user (\$0-300)
2. Rating can be presented as a single number or letter
3. Accurate
4. Makes recommendations for upgrades
5. Smooth process to pursue upgrades as follow-up
6. Residential: Asset rating – based on features of home rather than occupant behavior
7. Commercial: Operational rating (Portfolio Manager)
8. Home Energy Rating System (HERS)-compatible
9. Tiered on-ramp - allowing drilling deeper if desired for more accuracy
10. Ability to customize and maintain for VT, but can be used and understood outside VT

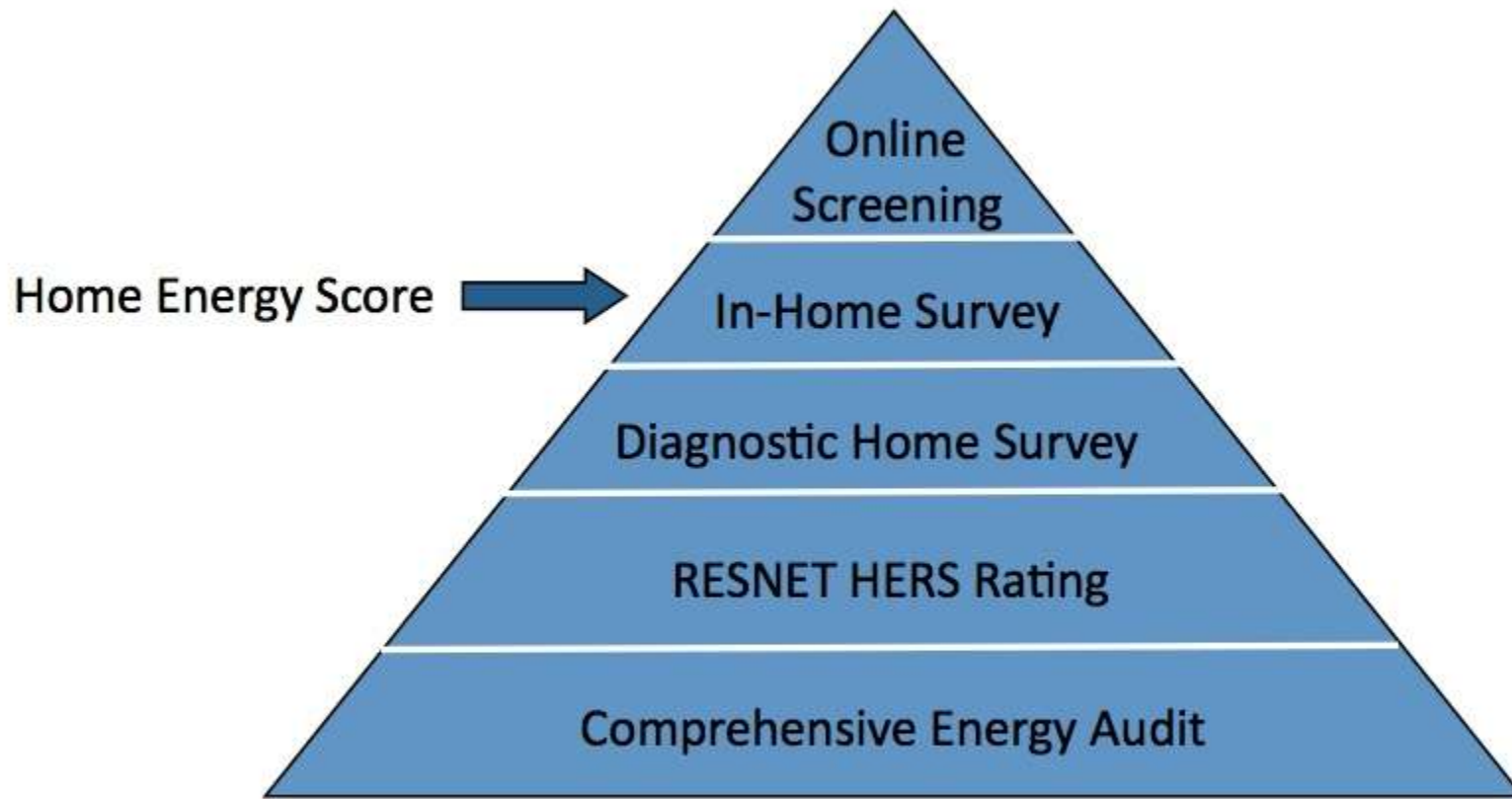
Rating Tool & Format

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- Rating tool “engine” can be separated from the score format
- SIMPLE-based rating engines (Michael Blasnik developed)
 - EnergySavvy
 - CSG’s EnergyMeasure
 - Earth Advantage’s Energy Performance Score (EPS)
- Score “format” options:
 - 0-100
 - 1-10
 - kWh/year
 - A-F
 - MMBtu/year
- VT Dept. of Public Service to issue an RFP for selection

Hierarchy for “Rating Tools”

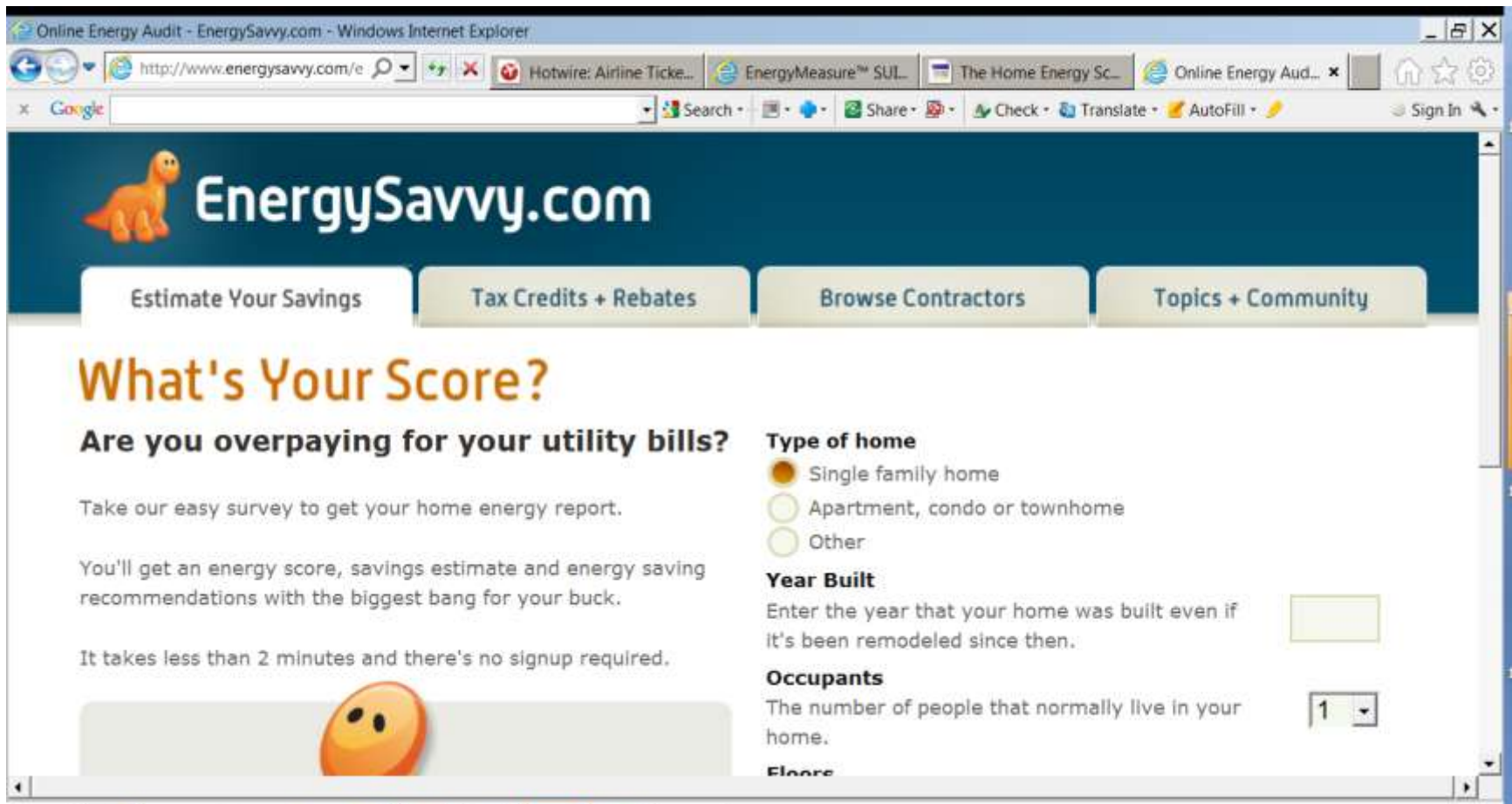
12



Time of Sale Energy Labeling of Homes: A Concept Paper, Philip Fairey (FSEC), Home Energy Magazine, July 2010 Issue.

EnergySavvy

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Online Energy Audit - EnergySavvy.com - Windows Internet Explorer

http://www.energysavvy.com/e

Hotwire: Airline Ticke... EnergyMeasure™ SUL The Home Energy Sc... Online Energy Aud... x

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 **EnergySavvy.com**

Estimate Your Savings Tax Credits + Rebates Browse Contractors Topics + Community

What's Your Score?

Are you overpaying for your utility bills?

Take our easy survey to get your home energy report.

You'll get an energy score, savings estimate and energy saving recommendations with the biggest bang for your buck.

It takes less than 2 minutes and there's no signup required.

Type of home

- Single family home
- Apartment, condo or townhome
- Other

Year Built

Enter the year that your home was built even if it's been remodeled since then.

Occupants

The number of people that normally live in your home.





Floors

EnergySavvy

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✓ STRUCTURE ✓ HEATING & COOLING 3 APPLIANCES 4 USAGE

How much attic insulation do you have?

 <p>No insulation</p>	 <p>Some insulation</p>	 <p>Thick insulation</p>	 <p>Not sure</p>
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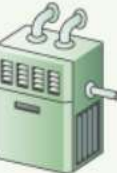

Is your clothes dryer natural gas or electric?

 <p>Natural Gas</p>	 <p>Electric</p>	 <p>No dryer</p>
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What fuel does your heating system use?

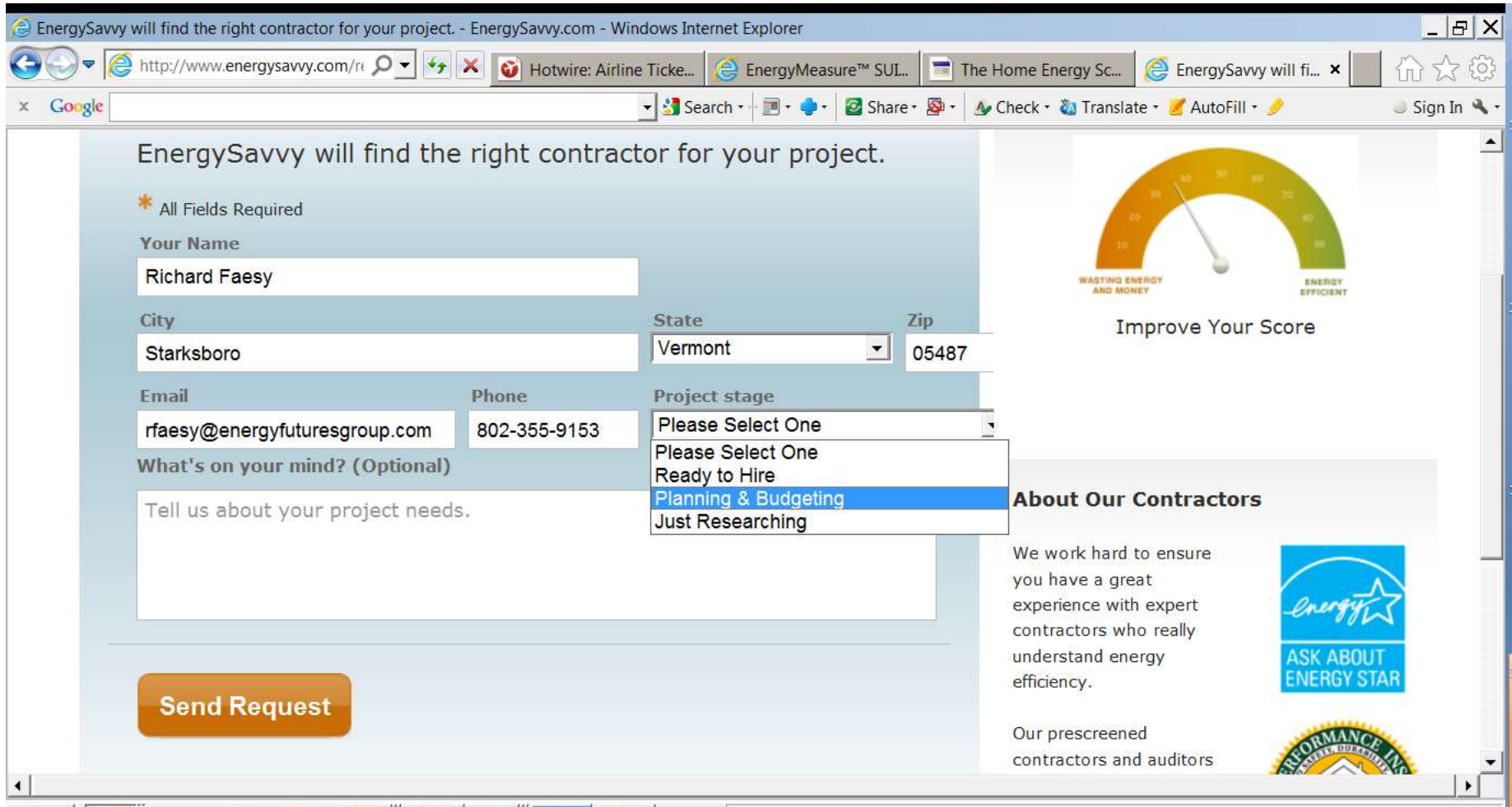
What kind of gas heater?

- Natural gas
- Electricity
- Oil

 <p>Over 20 years old gas heating</p>	 <p>Modern gas heating</p>	 <p>Modern gas heating (92% or better)</p>	 <p>Not sure</p>
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EnergySavvy

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EnergySavvy will find the right contractor for your project. - EnergySavvy.com - Windows Internet Explorer

http://www.energysavvy.com/ri

Hotwire: Airline Ticke... EnergyMeasure™ SU... The Home Energy Sc... EnergySavvy will fi...

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EnergySavvy will find the right contractor for your project.

* All Fields Required

Your Name
Richard Faesy

City
Starksboro

State
Vermont

Zip
05487


Email
rfaesy@energyfuturesgroup.com

Phone
802-355-9153

Project stage
Please Select One
Please Select One
Ready to Hire
Planning & Budgeting
Just Researching

What's on your mind? (Optional)
Tell us about your project needs.


Send Request



Improve Your Score


About Our Contractors

We work hard to ensure you have a great experience with expert contractors who really understand energy efficiency.



ASK ABOUT ENERGY STAR

Our prescreened contractors and auditors



EnergyMeasure View

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EnergyMeasure™ VIEW
powered by  CONSERVATION SERVICES GROUP

CONTRACTOR LOGIN



Home Energy Survey

How efficient is your home?



5	<p>Easy Steps</p> <p>Only 5 steps to find your savings from your roof shingles to your light bulbs</p>
7	<p>Minutes to Complete</p> <p>Save hundreds of dollars on your energy bills in as little as 7 minutes!</p>
12	<p>Possible Ways to Save</p> <p>We will show you energy recommendations and incentives in your area</p>
\$0	<p>It's Free</p>

EnergyMeasure View

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1 YOUR HOME
2 WINDOWS & ROOF
3 HEATING & AIR
4 WATER HEATER
5 LIGHTING & APPLIANCES
YOUR RESULTS


[← BACK TO WINDOWS AND ROOF](#)

Heating and Air Conditioning

Your heating and air conditioning can greatly impact your energy efficiency. Please tell us about those components.

What is your usual setting for heating temperature?

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 I don't know

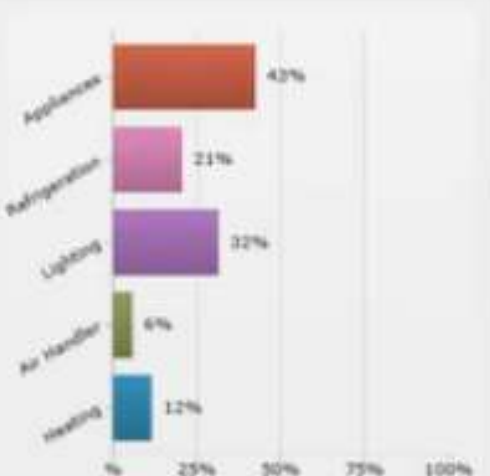
TIP *Slide the green button above to select your choice. If you have a programmable thermostat, just use your best guess at the average temperature.*

What is your main heating fuel?


Gas
 Electric
 Oil
 I don't know

How is your heat delivered?

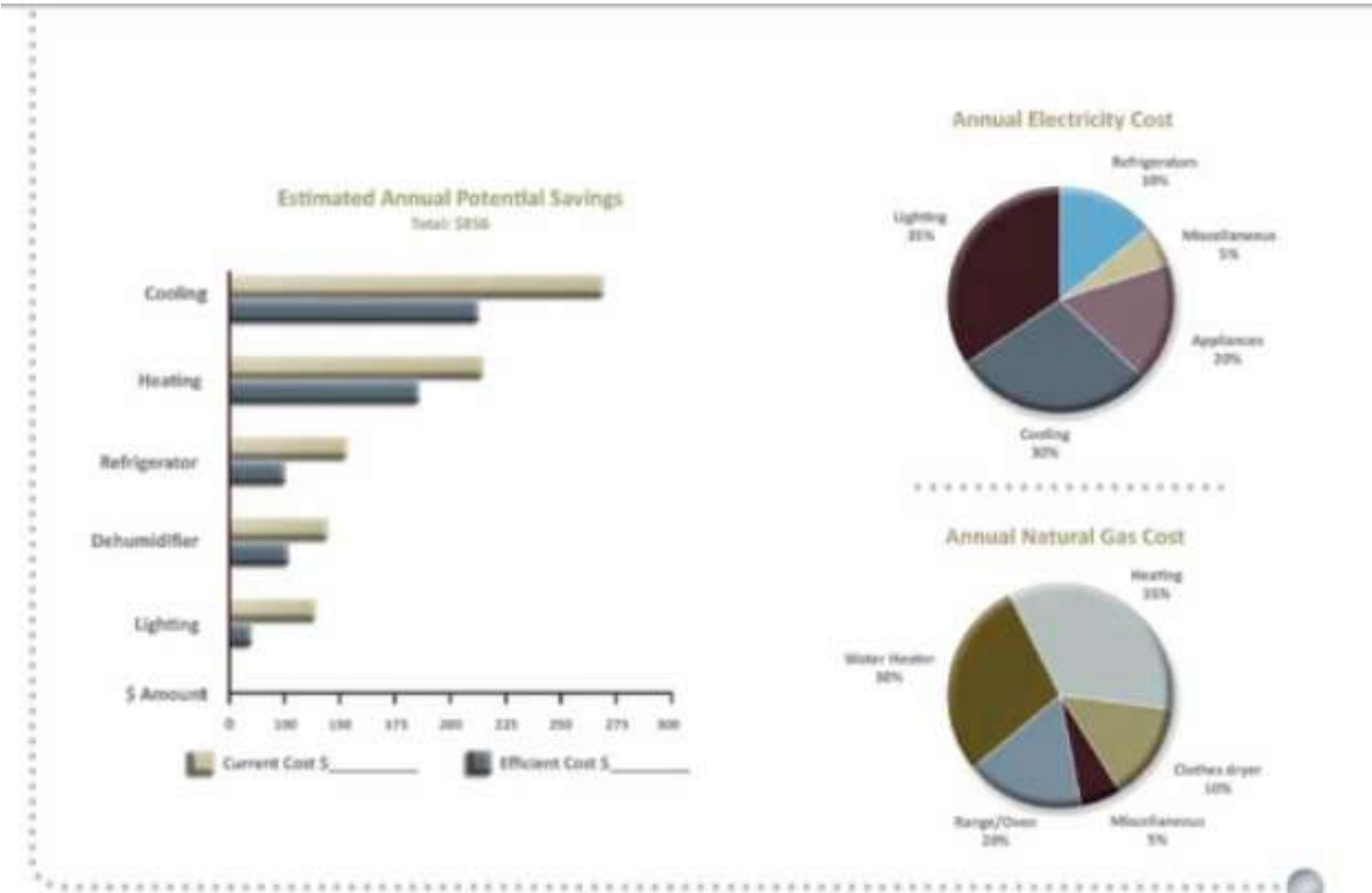
Total Fuel Consumption



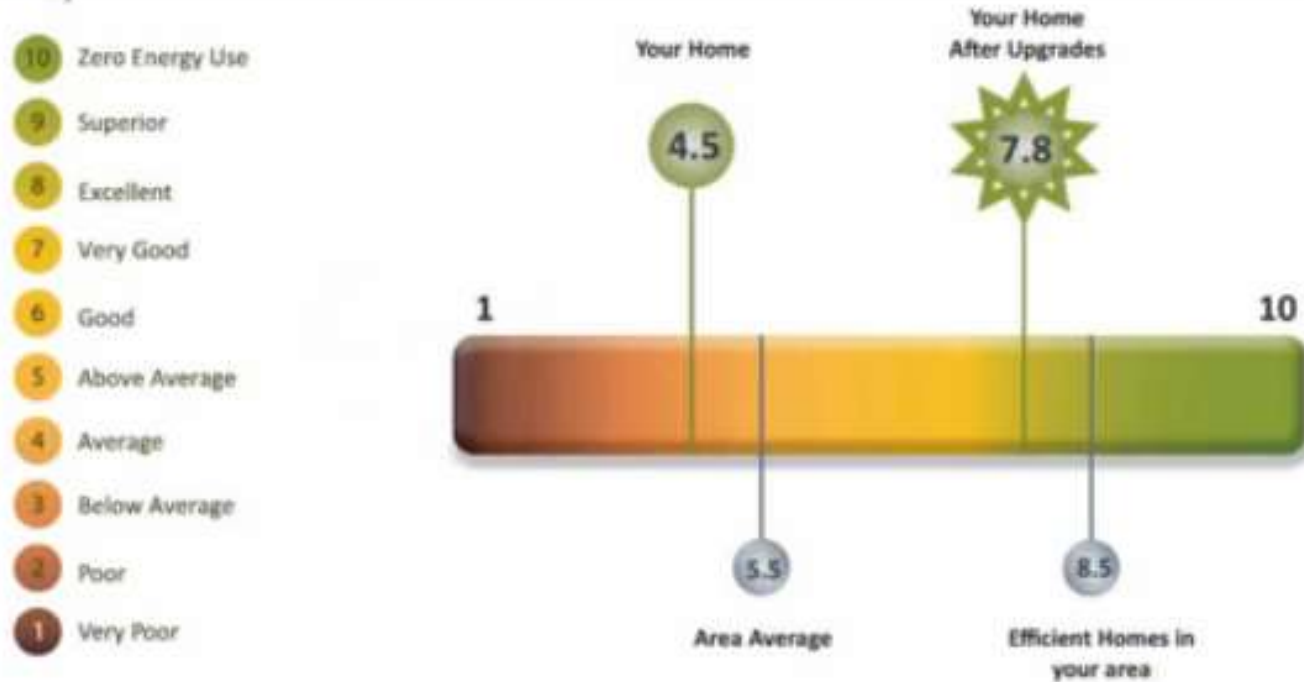
Category	Percentage
Appliances	43%
Refrigeration	21%
Lighting	32%
Air Handler	6%
Heating	12%



EnergyMeasure View



EnergyMeasure View



The above chart shows the Energy Performance Score (EPS) for your home, for other homes in your area, and for your home with all recommended energy efficiency measures implemented. By comparing your score with the average score for other homes in your area and for your home with all recommended measures completed, you can see the potential savings you may gain.

Estimated annual energy waste \$_____. Please see your attached recommendations to improve your score.

Ratings based on U.S. Department of Energy data in your area.



rought to you by Energy Trust of Oregon

Independent assessment of energy consumption and carbon footprint.

The Energy Performance Score is a tool to assess energy consumption and carbon emissions of a home. The lower the score, the better—a low EPS identifies a home as energy efficient with a smaller carbon footprint and lower energy costs.

Monthly Energy Costs

\$ **114***

Estimated average energy costs per month by fuel type:
Electric \$52, Natural Gas \$32

Estimated average annual energy costs:
\$1,368*

*Actual utility costs may vary depending on consumer use.

Location:
12345 SE Example Street,
Portland, OR 97215

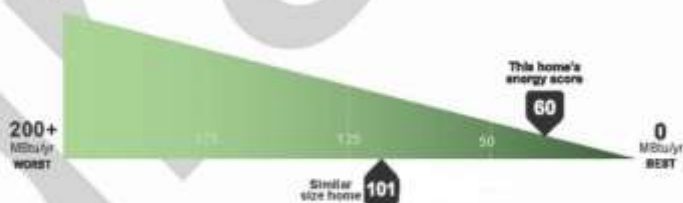
ISSUE DATE: 9-17-11
YEAR BUILT: 2010
SQ. FOOTAGE: 2,112

Utilities:
Gas: NW Natural
Electric: Portland General Electric

ENERGY CONSUMPTION: Measured in million Btu per year (MBtu/yr). One million Btu = 293 kWh or 10 therms.

Energy Score

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Estimated average energy usage: Electric (kWh): 512*, Natural gas (therms): 491

*Include 2 kW of PV Solar

CARBON FOOTPRINT:

Measured in tons of carbon dioxide per year (tons/yr). One ton = 2,000 miles driven by one car (typical 21 mpg car).



Estimated average carbon footprint: Electric (tons/yr): 3.1, Natural gas (tons/yr): 1.8

Actual energy costs are based on many factors such as occupant behavior and weather. A home's EPS will vary based on the energy-efficient features included in the home. Improvement and updates to the home made after the score date will affect the EPS.



Typical Tool Inputs

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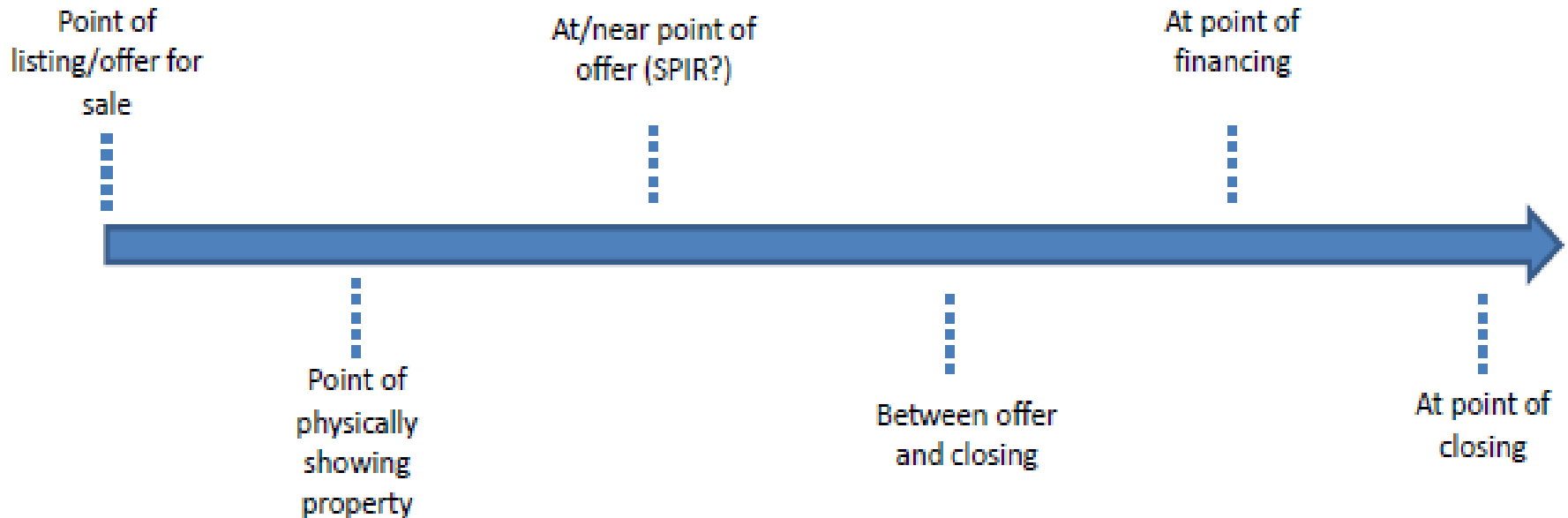
1. Type of home
2. Location – by ZIP code
3. Year Built
4. Number of occupants
5. Number of floors
6. Size in square feet
7. Type of Foundation
8. Wall insulation (well insulated, poor/no insulation, not sure)
9. Windows (single pane, single with storm, double pane, high efficiency windows)
10. Shading
11. How drafty does your home feel?
12. Attic insulation (none, some, thick, not sure)
13. Heating system type & fuel
14. Thermostat settings
15. Air conditioner age
16. Ducts description
17. Ceiling air vents
18. Clothes dryer fuel
19. Cooking fuel

Typical Tool Inputs

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20. Water heater type & fuel
21. Refrigerator type and age
22. Second refrigerator or freezer
23. Describe your lighting (usage & efficient bulbs)
24. Are there a lot of electronic and entertainment devices in your home?
25. Showers usage

Timing Options Tied to the Real Estate Transaction Process



Timing Options Not Necessarily Tied to the Real Estate Transaction Process

Periodic Disclosure
Point of Financing

Thanks to
George Twigg,
VEIC

Timing Options Tied to the Real Estate Transaction Process

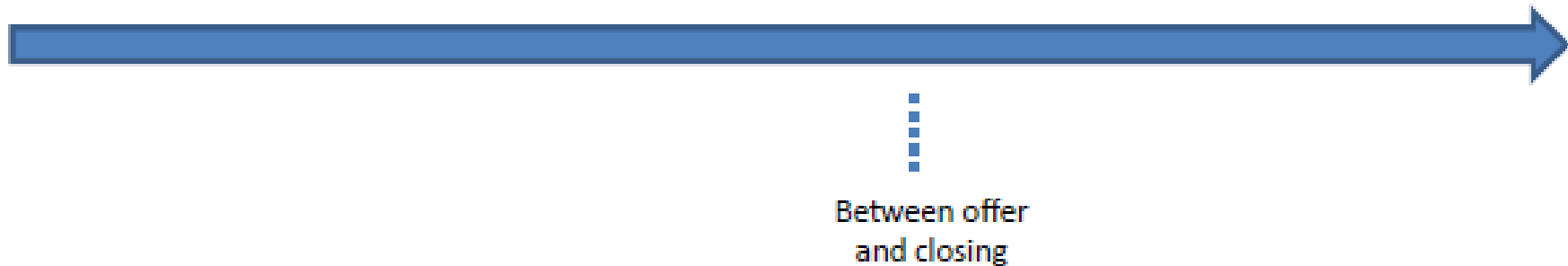
Point of
listing/offer for
sale



Discussion

- Trigger: MLS listing (if represented sale, otherwise need to define)
- Benefit: consumers can comparison shop prior to making an offer
- Concern: potential to add cost and complexity at “fragile” time of transaction (varies based on type of tool)
- Issues: How to handle listed vs. FSBO properties
- Rating could be performed prior to listing

Timing Options Tied to the Real Estate Transaction Process



Discussion

- Similar to a home inspection contingency
- Rating could be done in conjunction with home inspection – process is consistent and already known
- Issue: Further downstream in terms of market visibility, may not be as useful for appraisers, comparison shoppers, etc.

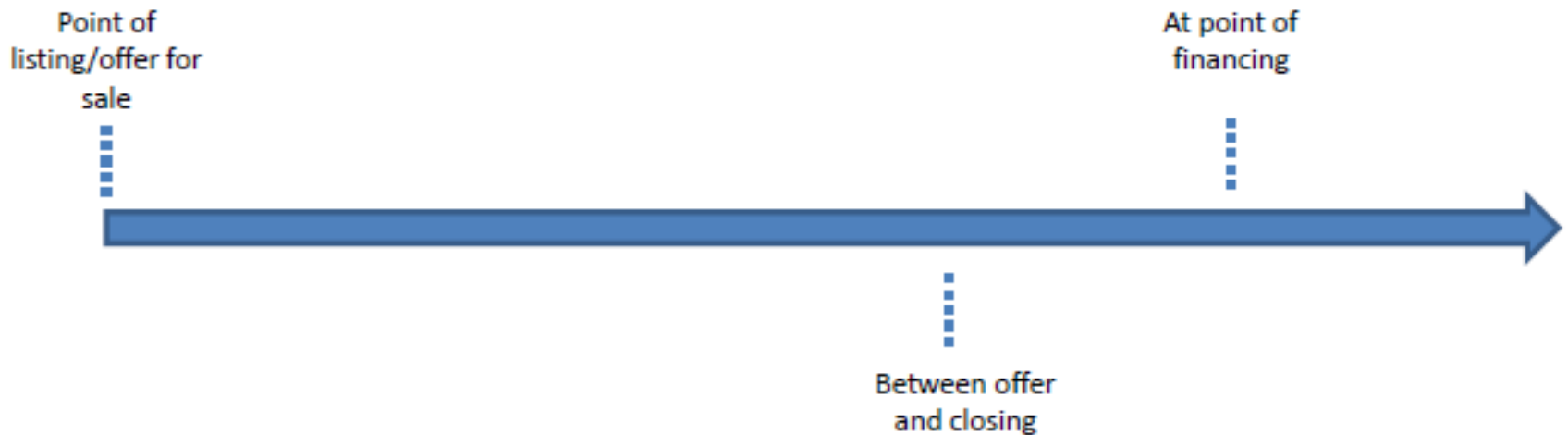
Timing Options Tied to the Real Estate Transaction Process



Discussion

- Benefit: more ratings get done more quickly (captures both refi's and sales)
- This timing could create opportunity to allow (or require) lenders to consider energy costs/performance as part of underwriting criteria
- More likely to lead to upgrades if tied directly to financing

Two-Phase Model



Discussion

- Phase 1: Free online tool for disclosure @ point of listing
- Phase 2: In-home audit later in process
- Similar to SPIR/home inspection model
- Best of both worlds?

Vermont's Issues

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- Con:
 - Philosophical opposition to mandates
 - The “poor grandma in the leaky old farmhouse” will lose her equity with a decrease in the home’s value
 - Upsetting the fragile housing market
 - Realtor opposition
 - Unknown Governor’s position
- Pro:
 - Legislated goal to weatherize 25% of homes by 2020
 - Few state resources to meet this goal
 - Robust market of Home Performance contractors are ready and need jobs
 - Support from the Homebuilders, fuel dealers, lenders & enviros

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Effective Strategies

Disclosure Policy: Basic Ingredients

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1. Enabling legislation
2. Rating system
3. Rating system management
4. Trigger point
5. Data collection and registry
6. Enforcement
7. Rater infrastructure
8. Phase-in strategy
9. Link to incentive programs

Challenges

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- Mechanical
 - Rating system issues
 - Which system to use?
 - Cost ↔ accuracy balance
 - Infrastructure
 - Implementation support
 - Enforcement
- Political
 - Mandatory vs. voluntary
 - Cost
 - Realtor opposition

Lessons Learned

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- Engage all parties as early as possible
- Expect the conversation to take years
- Realtors will oppose (except in Austin)
- Eliminate the cost argument with a simplified rating tool
 - Watch for significant developments with new generation of rating tools
- Look for opportunities to tie directly to contractors and financing to facilitate improvements
- Start small and add components over time: get a foot in the door
- Follow the conversation at www.buildingrating.org

Useful References

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- www.buildingrating.org
- www.neep.org/uploads/policy/NEEP_BER_Report_12.14.09.pdf
- Vermont Building Energy Disclosure Working Group documents, presentations, final report:
 - <http://www.dca.state.vt.us/bedwg.html>

Q&A

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