REQUIREMENTS FOR LABELING & DISCLOSURE OF BUILDING ENERGY EFFICIENCY

Regulatory Assistance Project Webinar

March 14, 2012

Andrew Burr, Institute for Market Transformation
Richard Faesy, Energy Futures Group

Webinar Overview

- Introduction (Chris Neme)
- Overview/Background
  - Andrew Burr, Institute for Market Transformation
- Residential Labeling & Disclosure Opportunities
  - Richard Faesy, Energy Futures Group
- Commercial Labeling & Disclosure Opportunities
  - Andrew Burr
- Q&A

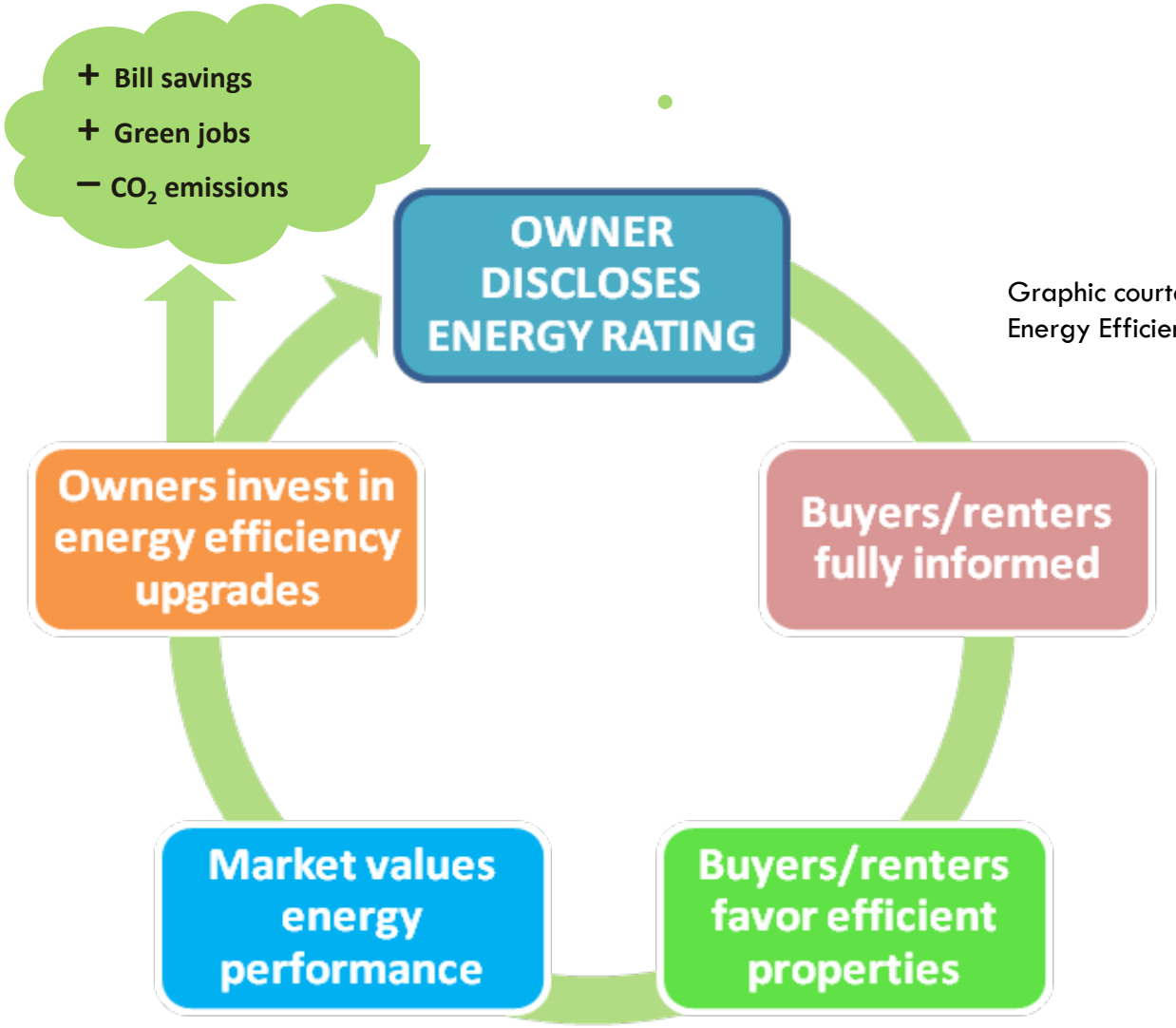
Andrew Burr, IMT

Labeling and Disclosure Overview

The Basics

- Being applied as a policy tool to motivate energy efficiency in existing homes and buildings by overcoming:
  - **Low awareness by occupants and/or building operators:** Most homeowners and many building owners lack awareness about opportunities to improve efficiency
  - **Informational barriers in the marketplace:** Nobody can tell the difference between an energy-efficient structure and an inefficient structure

Creating a Virtuous Cycle



Graphic courtesy of Northeast Energy Efficiency Partnerships (NEEP)

Types of Ratings

Asset Ratings

- Asset ratings measure the structural efficiency of a home or building independent of occupant behavior
  - Based on energy simulations or models of the physical building
  - Operating characteristics are assumed
  - Also known as “as-built” ratings, “as-designed” ratings”, “calculated” ratings and “theoretical” ratings
  - Typically used for homes because occupant behavior varies greatly, and for new construction because there is no operating data

Operational Ratings

- Operational ratings measure the performance of a home or building using actual consumption data
  - Based primarily on utility bills
  - Usually normalizes for many factors, including climate, occupancy, size of structure, etc.
  - Typically used for nonresidential buildings where tenancy factors are more standard

Disclosure Triggers

Time of Transaction

- Typically prior to the sale, lease or financing of a property
  - Disclosure to the counterparty in the transaction
  - Where during the transaction the disclosure occurs is important

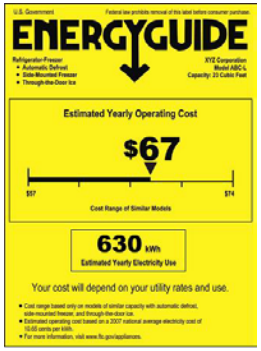
Public

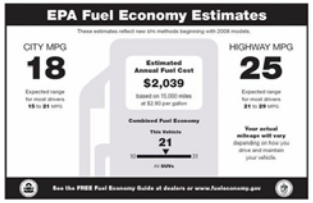
- Public display of energy performance label or rating
  - More common for commercial where privacy concerns are fewer

Policy Benefits

Consumer Rights

Actionable information for consumers, businesses, investors and lenders to use when making a real estate decision. MPG labels, nutritional disclosures critical to free and fair enterprise





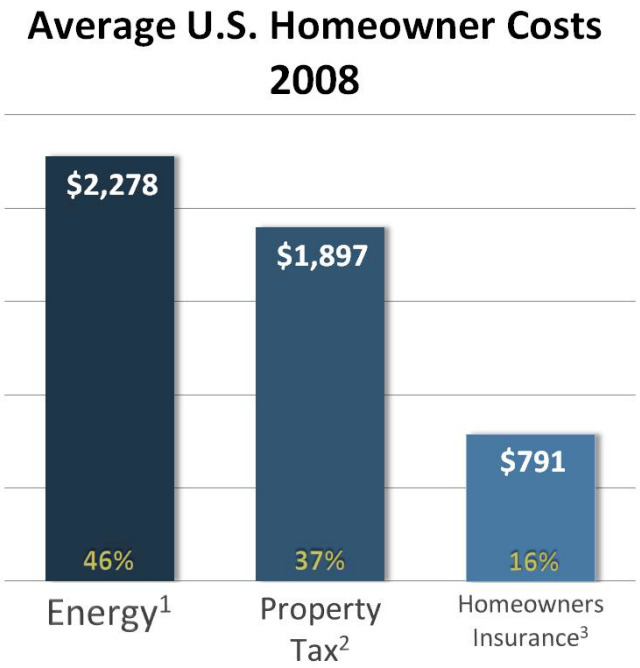
Policy Benefits

Market Valuation of Energy Efficiency

The market can't value what it doesn't recognize. Market value will incentivize greater energy efficiency improvements without public subsidies

Safer Borrowers

Home buyers that purchase energy-efficient homes are safer borrowers because less income is spent on energy bills



Occupant and Building Operator Awareness

Labeling increases awareness on the part of occupants and operators. Recent Johnson Controls survey correlated energy monitoring with higher implementation rate for EE measures. Recent Building Operating Management survey (Dec. 2011) of hundreds of building operators found:

- 70% of operators who Energy Star benchmark have used benchmarking data to guide EE upgrade plans; and
- 67% have used benchmarking to help justify implementing an EE project

Policy Benefits

Smarter Policy

Policymakers that collect data can develop smarter policies and incentives that leverage public dollars more effectively

International Timeline

1997: Denmark requires energy certification for homes and buildings

1999: Australian Capital Territory requires energy certification for homes

2004: Norway, part of the European Economic Area, formally agrees to implement the EPBD and building certification requirements

2007: Brazil adopts voluntary building rating regulations that become mandatory in 2012

2010: EPBD Recast The EPBD is recast to strengthen the energy performance requirements for all EU Member States

1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012

2002: The European Parliament adopts the Energy Performance of Buildings Directive (EPBD), requiring all **EU Member States** to establish mandatory energy certification schemes for homes and buildings

2008: China adopts a mandatory energy rating program for government buildings.

2008: Turkey adopts a mandatory certification scheme

2010: Australia enacts mandatory energy rating for commercial structures.

Richard Faesy, EFG

Presentation Overview for Faesy

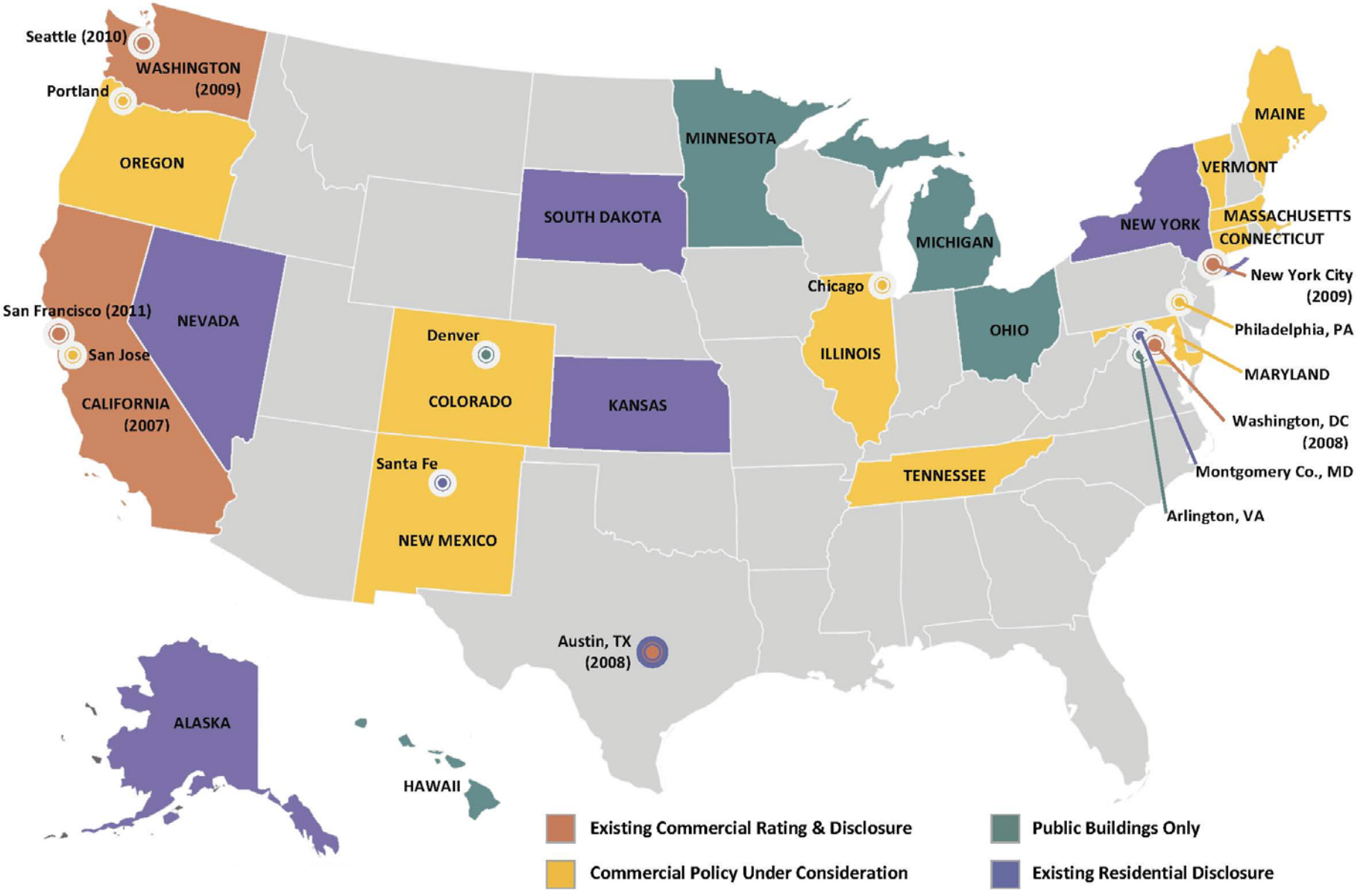
1. U.S. Residential Labeling & Disclosure
2. U.S. Rating/Labeling Examples
3. Success Stories
4. The Vermont Experience – A Work in Progress
5. Effective Strategies
6. Q&A (after Andrew Burr)

U.S. Building Rating and Disclosure Policies

IMT Institute for Market Transformation

BuildingRating.org sharing transparency

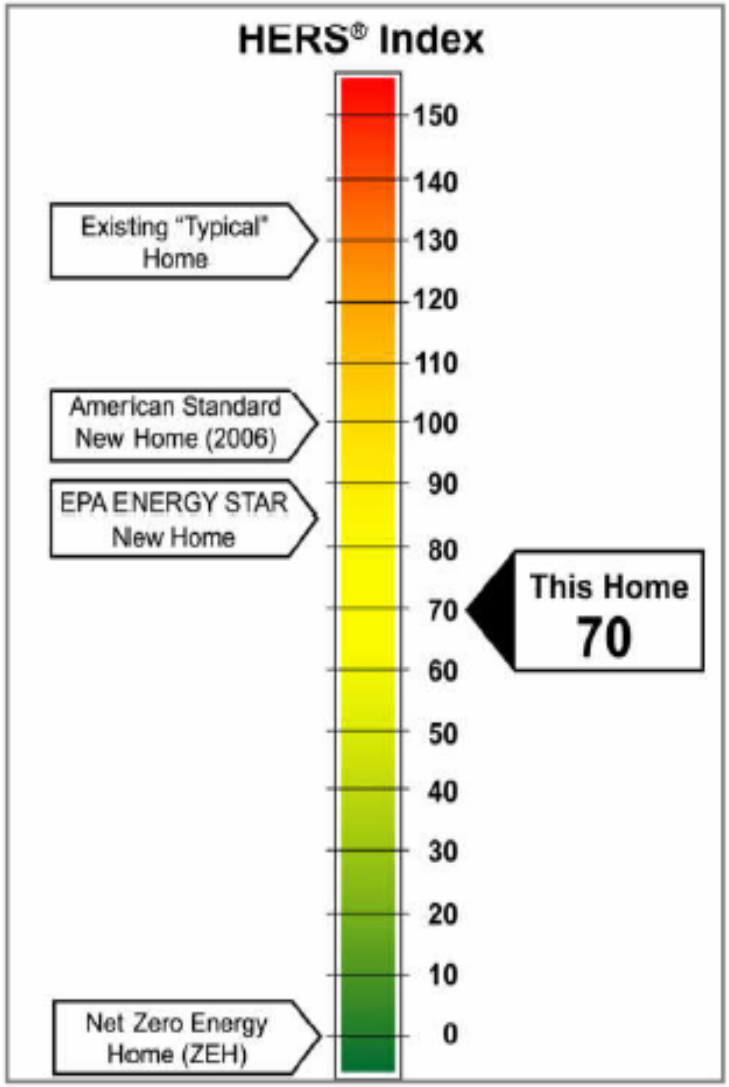
For more information, please contact Caroline Keicher, Institute for Market Transformation at (202) 525-2883, caroline@imt.org
To access this document online, see www.imt.org/rating or www.buildingrating.org



Policies Vary by Jurisdiction

	Property Types	Energy Information Required			Disclosure Type		
Jurisdiction	All residential units; exceptions noted	Efficiency Checklist	Utility Data	Evaluation/ Audit	Public Display	To Potential Buyers	To Potential Tenants
Alaska	✓	-	✓	-		✓	-
Austin, TX	≤4 units, separate multifamily requirements	-	-	✓	multifamily audit results	✓	-
Kansas	new residences ≤4 units	✓	-	-		✓	-
Maine	✓	✓	-	voluntary standards	✓	voluntary standards	✓
Montgomery County, MD	✓	-	✓	-		✓	-
Nevada	≤4 units	✓	✓	-		✓	-
New York	✓	-	✓	-		✓	✓
Santa Fe, NM	new residences	-	-	HERS rating or similar	✓	✓	-
South Dakota	new residences ≤4 units	✓	-	-		✓	-

RESNET's HERS Index



ENERGY PERFORMANCE SCORE

INDEPENDENT ASSESSMENT OF THIS HOME'S ENERGY CONSUMPTION, COSTS AND CARBON EMISSIONS

REPORT FOR: 12345 Example Road, Portland, OR 97217 **PREPARED BY:** John Sweet, Energy Trust of Oregon

ISSUE DATE:
02-01-2010

YEAR BUILT:
1975

SQUARE FOOTAGE USED FOR ENERGY CALCULATIONS:
2,000

ESTIMATED ANNUAL ENERGY USAGE:
Electric (kWh): 5,558
Natural gas (therms): 1,028

IDENTIFICATION #:
123456

TYPE:
Single Family

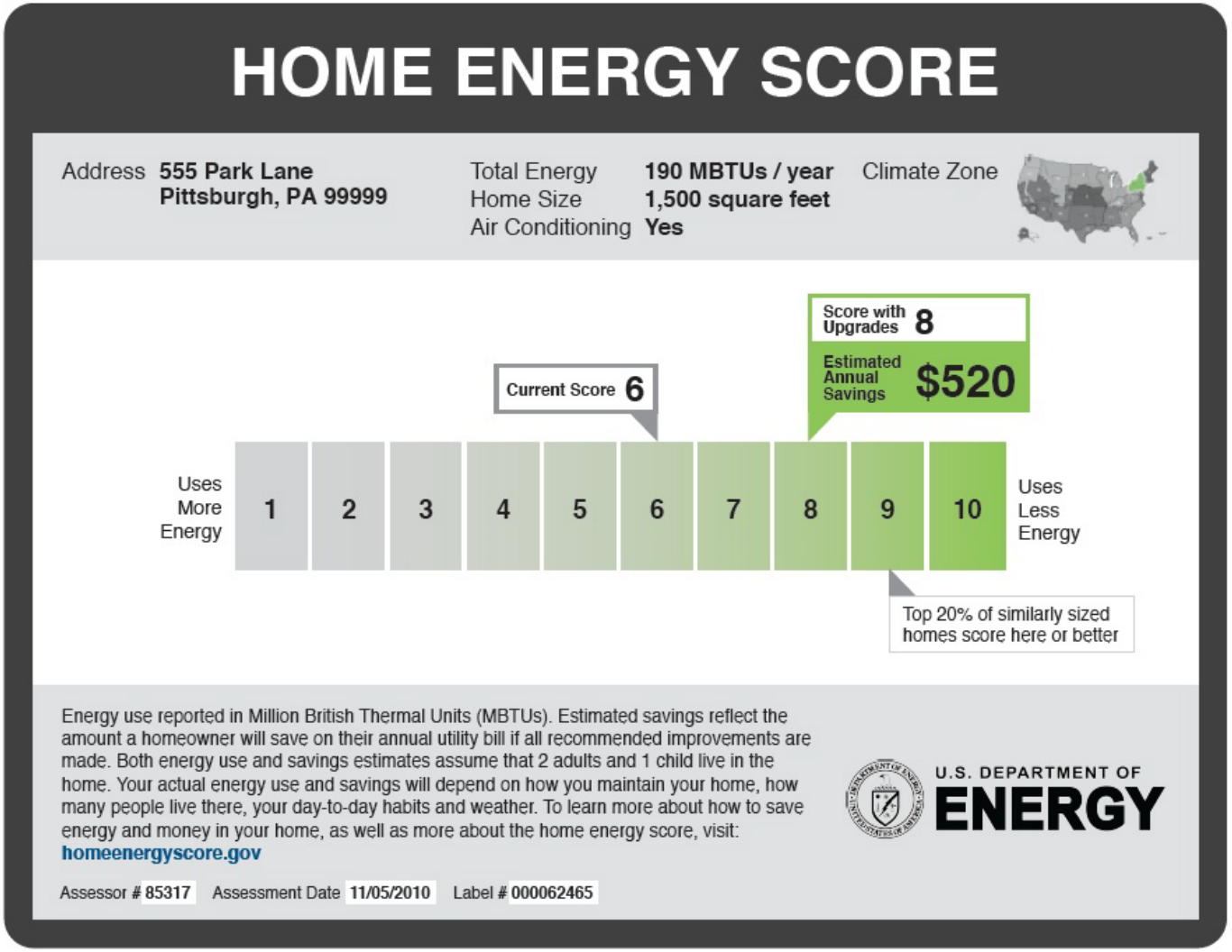
ESTIMATED AVERAGE ANNUAL ENERGY COSTS*:

$1,674

monthly average: **$139**

*Actual energy costs will vary.

DOE's New Home Energy Score



Success Stories: Netherlands

- On the Economics of EU Energy Labels in the Housing Market, RICS Research, London, UK
- Netherlands was one of the early adopters of the EU "Energy Performance of Buildings Directive"
- Semi-mandatory building labeling
- Results:
  - Initially 25% adoption rate, but fell soon after
  - Labeling propensity increases with "green" political parties
  - Higher uptake in areas of weak market demand; selling aid
  - 2.8% higher transaction price for properties with A, B or C certificate

Success Stories: Australia

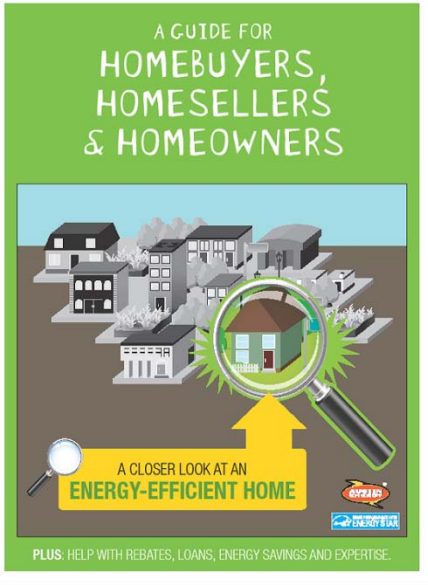
- "The study looked at whether a relationship exists between the EER of a house and sale price using data from 2005 and 2006 and found that a statistically significant relationship does exist. This means, if a house has a higher EER than another house, but in all other respects the houses are the same, the house with the higher EER will command a higher price."
- "EER was found to be positively associated with house price. The association on average for 2005 was 1.23 percent for each 0.5 EER star and 1.91 percent in 2006, holding all other variables constant." (0-10 EE Rating)
  - E.g. for a $200,000 home, .5 EER adds ~$3,000 in value

Success Stories: Austin, Texas

- Requires commercial buildings to obtain ENERGY STAR ratings by mid-2011 and disclose ratings to prospective buyers.
- Requires audits of single-family homes prior to a sale and audits of large multifamily buildings by mid-2011.
- Home audit results must be disclosed to prospective buyers, and multifamily audit results must be posted within the building and may trigger mandatory upgrades.
- Progressive Realtors led in support.

Single Family Energy Audits

Dates	Non Exempt Home Sales	Audits Received	%
6/1/2009 to 9/30/2009	2,654	1,685	63%
10/1/2009 to 9/30/2010	6,092	3,927	64%
10/1/2010 to 9/30/2011	4,747	3,259	69%
Total	**13,493**	**8,871**	**66%**



NOTE: 97% of the homes received a recommendation for improving energy efficiency on the energy audit.

Exemptions for Energy Efficiency and age but, legal exemptions have not been identified.

Single Family Retrofits

One year before and one year after the sale

Dates	Total Home Sales	Exempt from Ordinance	Not Exempt from Ordinance	Sale Related Retrofits	% of Total Home Sales
6/1/2009 to 9/30/2009	4,383	1,729	2,654	247	5.60%
10/1/2009 to 9/30/2010	9,584	3,492	6,092	566	5.90%
10/1/2010 to 9/30/2011	6,634	1,887	4,747	373	5.60%
Total	**20,601**	**7,108**	**13,493**	**1186**	**5.80%**

Exemptions for Energy Efficiency and age but, legal exemptions have not been identified.

The Vermont Experience

A case study in mandatory disclosure legislation

Vermont Background

- 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

- 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

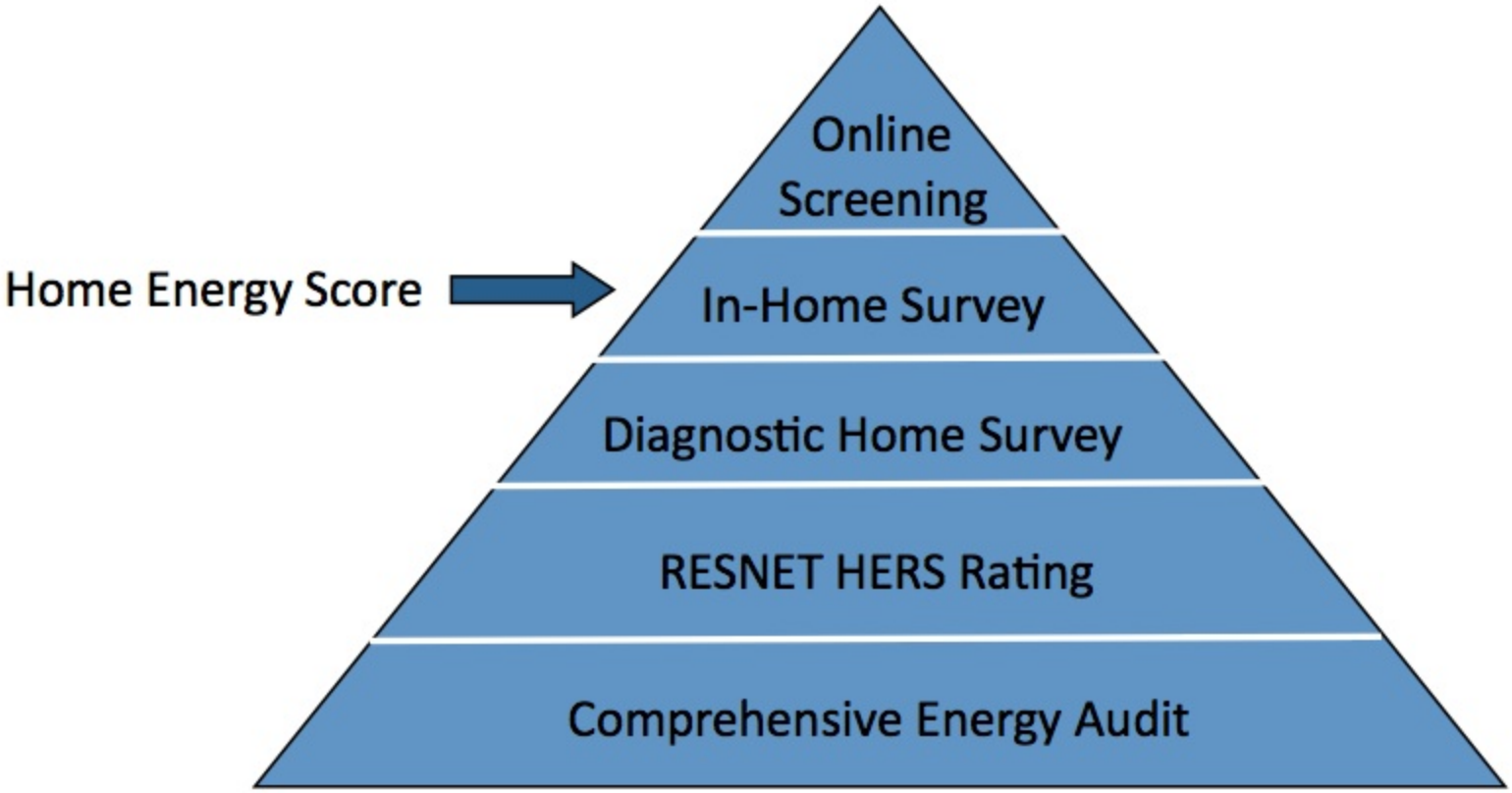
Disclosure Rating - Core Principles

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

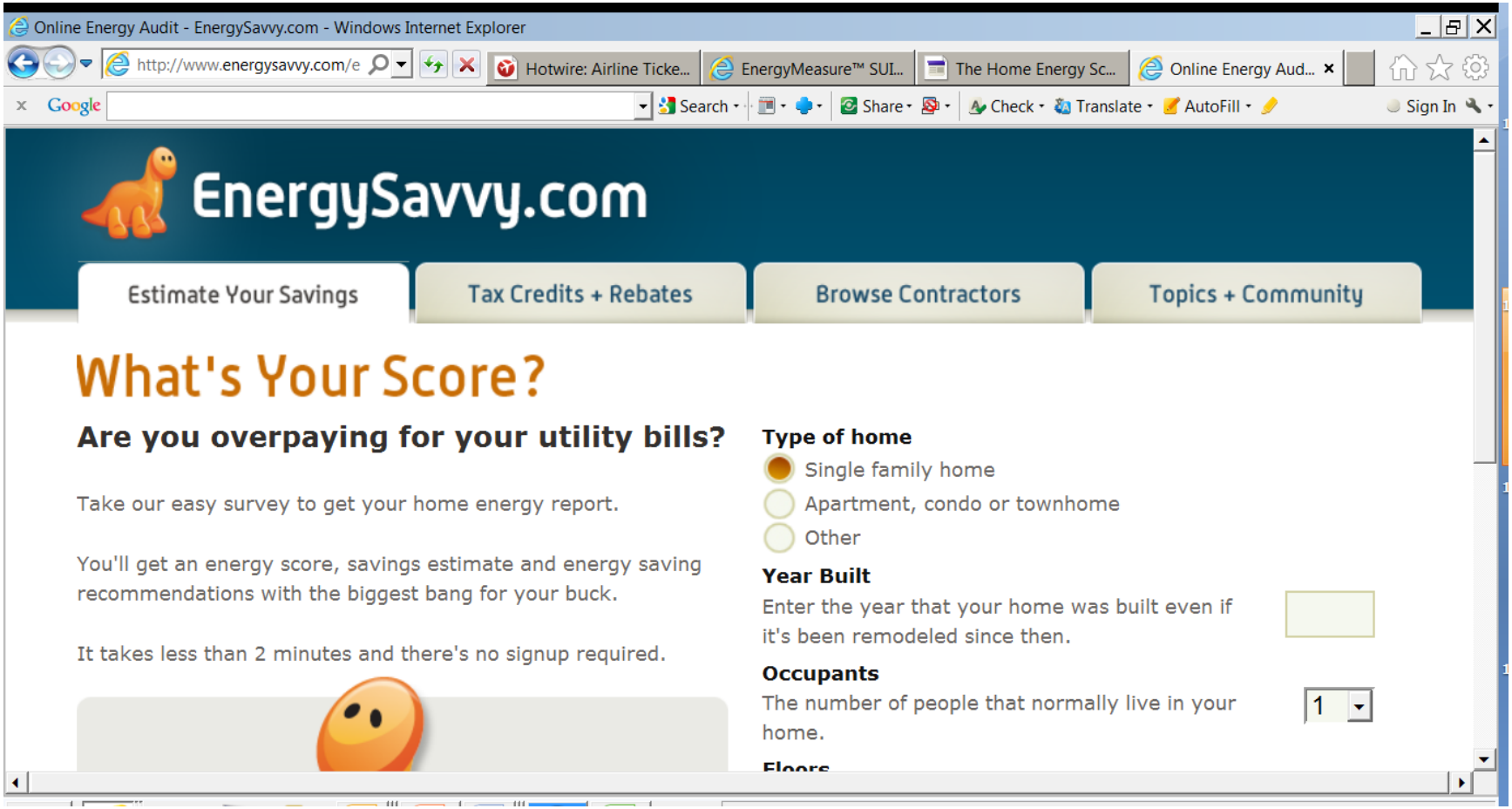
- Rating tool "engine" can be separated from the score format
- SIMPLE-based rating engines (Michael Blasnik developed)
  - EnergySavvy
  - CSG's EnergyMeasure
  - Earth Advantage's Energy Performance Score (EPS)
- Score "format" options:
  - 0-100
  - 1-10
  - MMBtu/year
  - kWh/year
  - MMBtu/bedroom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

Hierarchy for "Rating Tools"



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

EnergySavvy



EnergySavvy

STRUCTURE | HEATING & COOLING | 3 APPLIANCES | 4 USAGE

How much attic insulation do you have?


No insulation


Some insulation

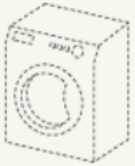

Thick insulation

Not sure

Is your clothes dryer natural gas or electric?


Natural Gas


Electric


No dryer

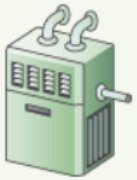
What fuel does your heating system use?

- Natural gas
- Electricity
- Oil

What kind of gas heater?

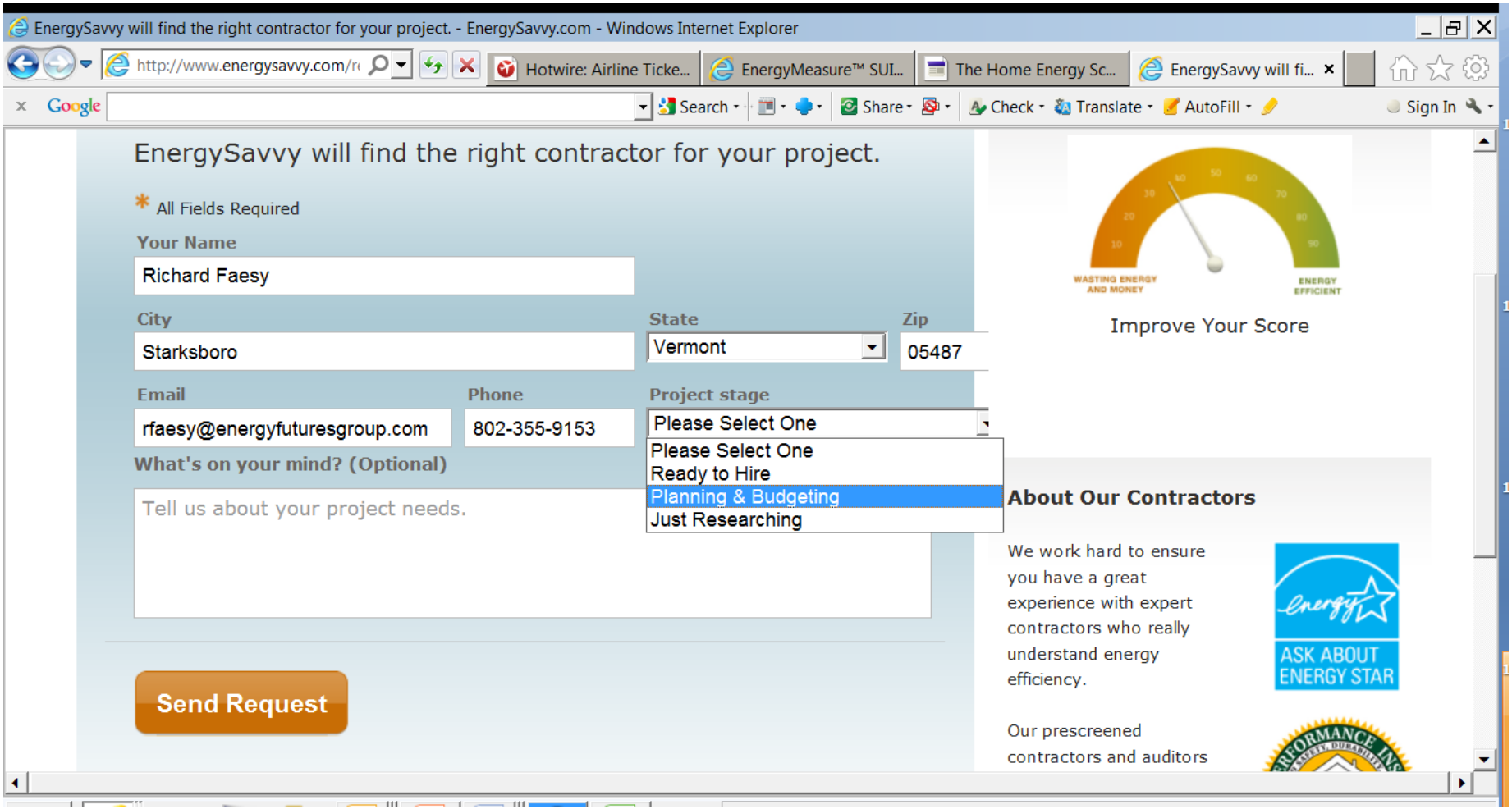

Over 20 years old gas heating


Modern gas heating


Modern gas heating (92% or better)

Not sure

EnergySavvy



EnergyMeasure View

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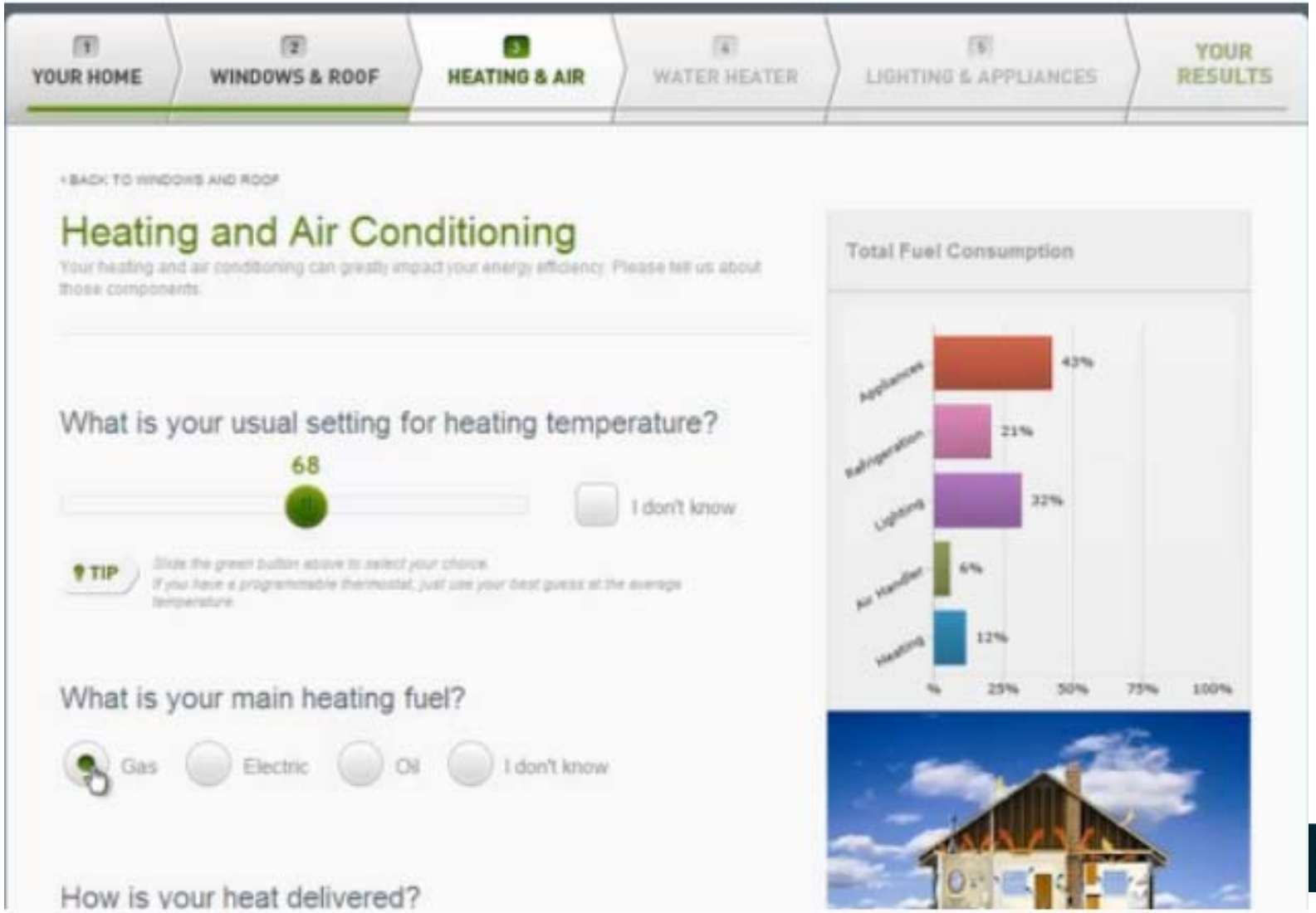
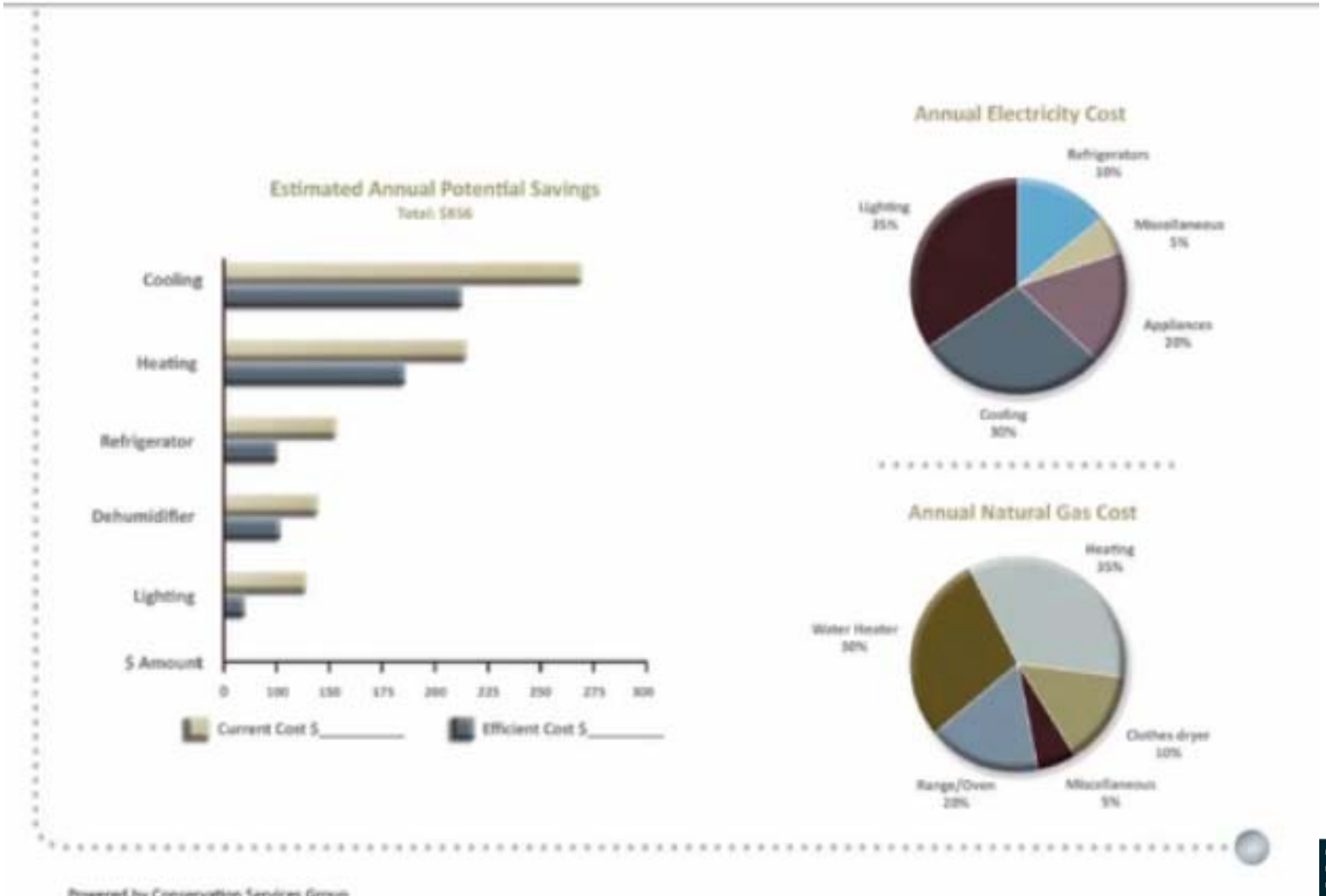
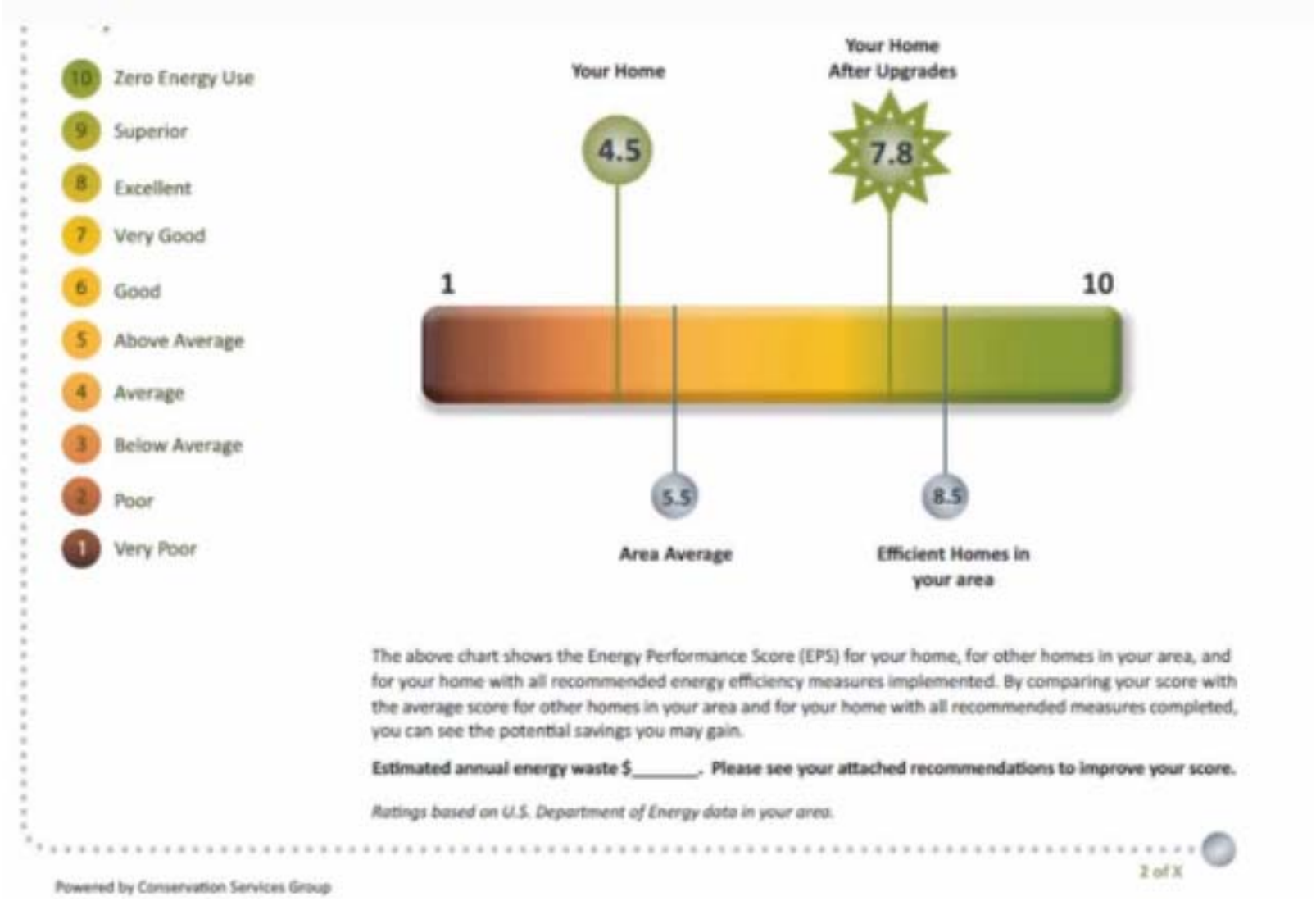


EnergyMeasure View



EnergyMeasure View



EPS
EnergyPerformanceScore
brought 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.

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

Monthly Energy Costs

$114*

Estimated average energy costs per month by fuel type:
Electric $82, Natural Gas $32

*Actual utility costs may vary depending on consumer use.

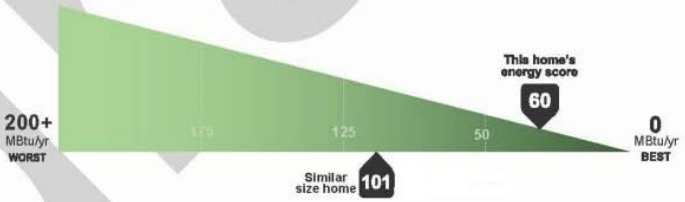
Estimated average annual energy costs:
$1,368*

Energy Score

60

ENERGY CONSUMPTION:

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

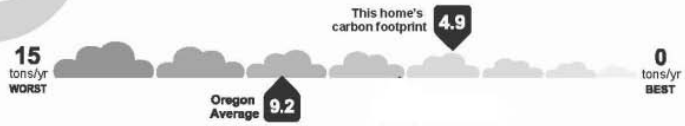


Estimated average energy usage: Electric (kWh): 512*, Natural gas (therms): 491

*Includes 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 installed in the home. Improvement and updates to the home made after the issue date will affect the EPS.

EnergyTrust of Oregon

EEG ENERGY FUTURES GROUP

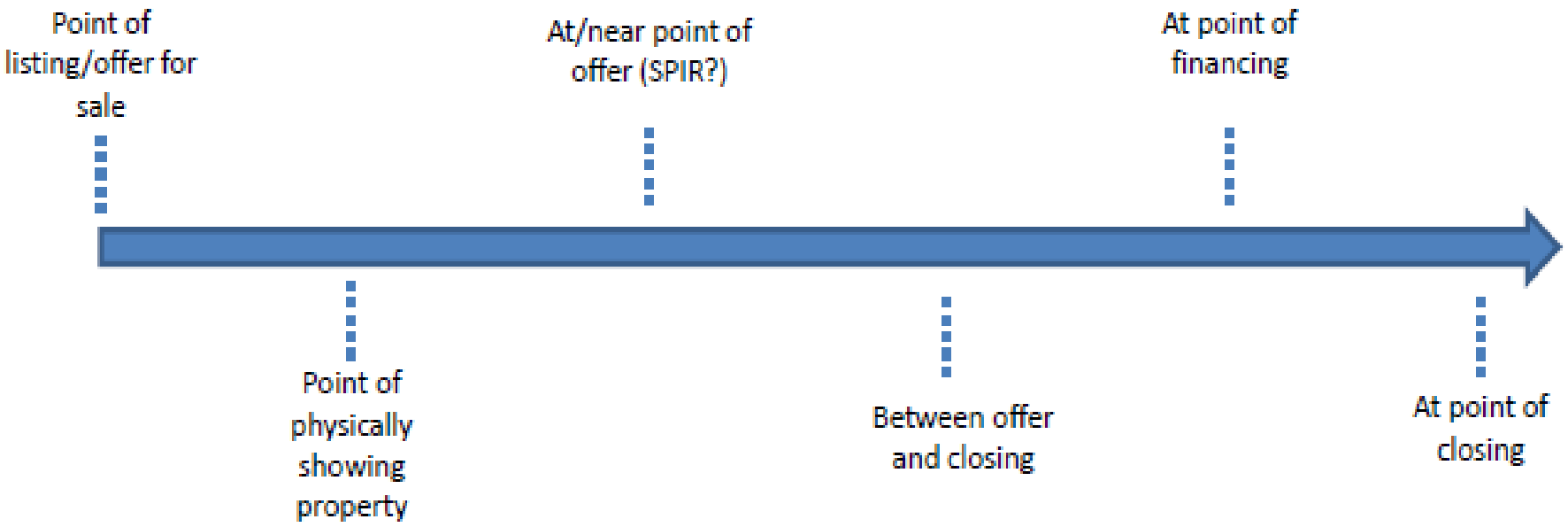
Typical Tool Inputs

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

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

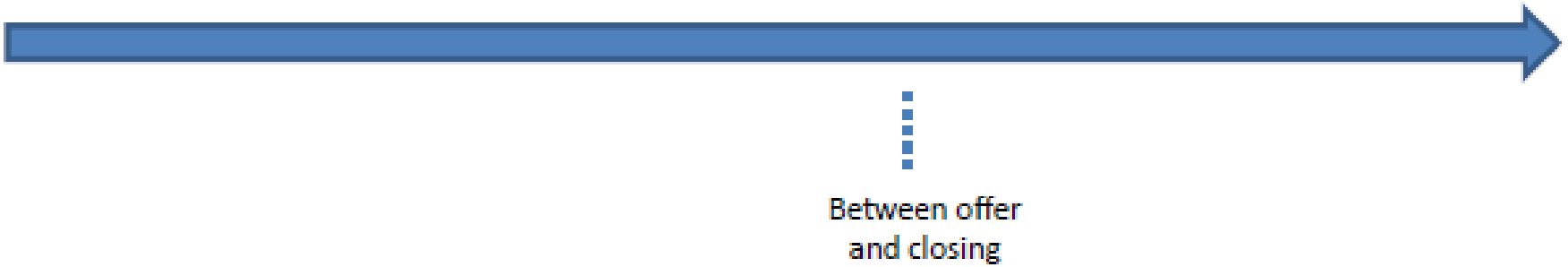
Thanks to George Twigg, VEIC

Timing Options Tied to the Real Estate Transaction Process

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

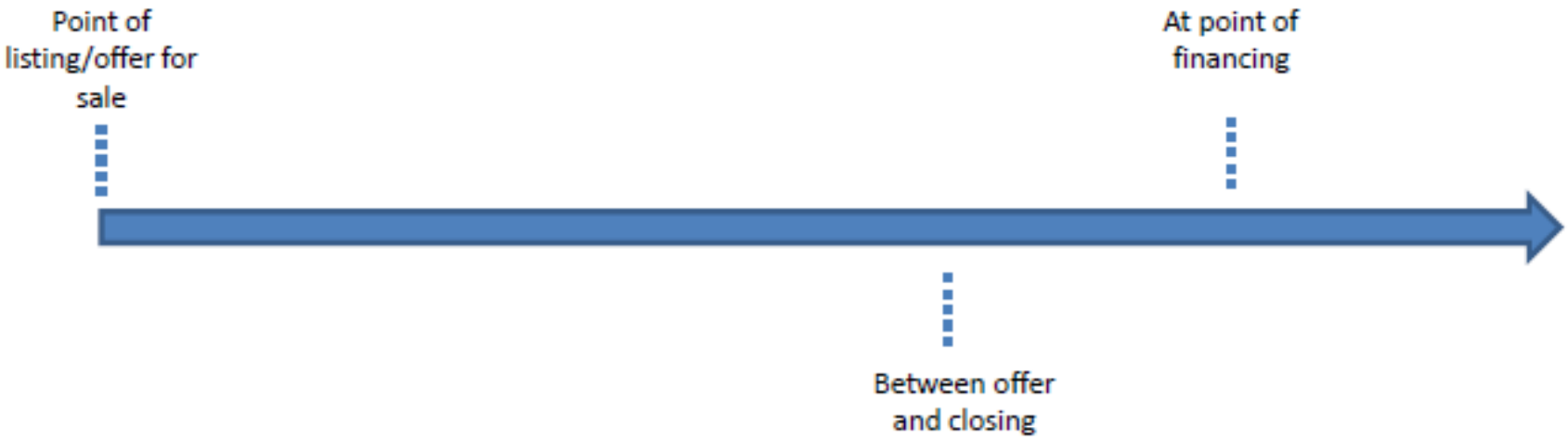
- Similar to a home inspection contingency
- Rating could be done in conjunction with home inspection – process is consistent and already known
- Issue: Further downstream in terms of market visibility, may not be as useful for appraisers, comparison shoppers, etc.

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

- Con:
  - Philosophical opposition to mandates
  - The "poor grandma in the leaky old farmhouse" will loose 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

Lessons Learned

- 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

Effective Strategies

Disclosure Policy: Basic Ingredients

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

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

Andrew Burr, IMT

Commercial Building Energy Rating and Performance Disclosure

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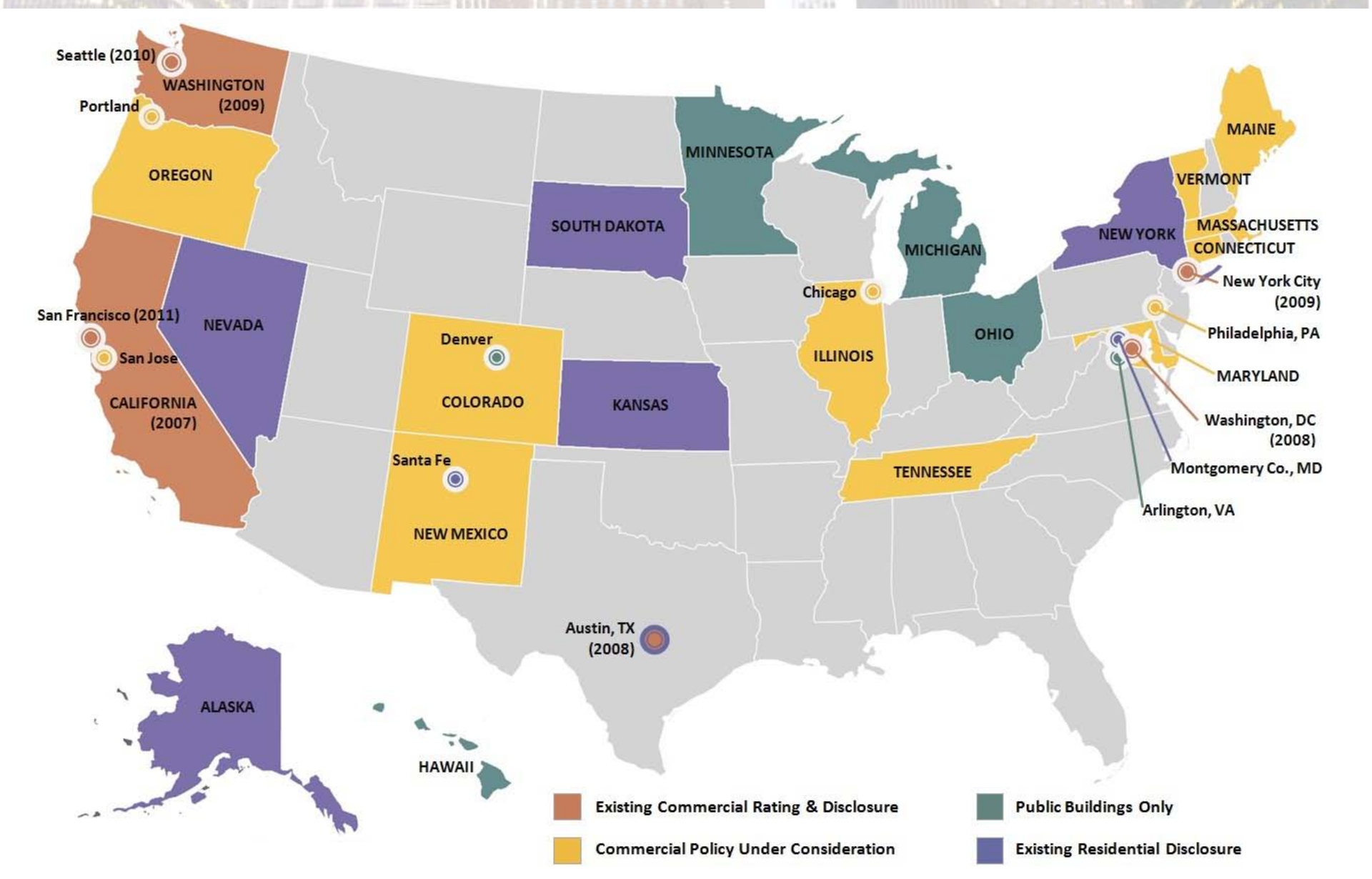
IMT Institute for Market Transformation

Policy Map

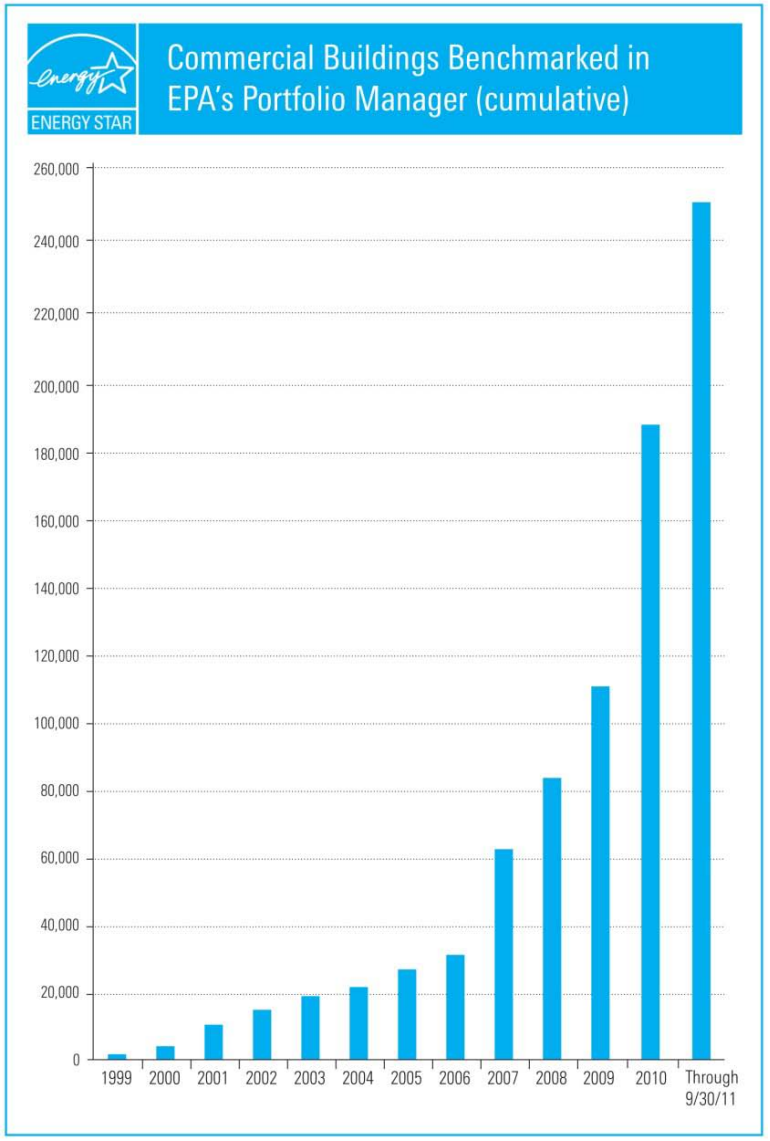

Seattle (2010)
WASHINGTON (2009)
Portland
OREGON
MINNESOTA
SOUTH DAKOTA
MAINE
VERMONT
NEW YORK
MASSACHUSETTS
CONNECTICUT
MICHIGAN
Chicago
New York City (2009)
San Francisco (2011)
NEVADA
OHIO
Philadelphia, PA
Denver
ILLINOIS
San Jose
MARYLAND
CALIFORNIA (2007)
COLORADO
KANSAS
Washington, DC (2008)
Santa Fe
TENNESSEE
Montgomery Co., MD
NEW MEXICO
Arlington, VA
Austin, TX (2008)
ALASKA
HAWAII
Existing Commercial Rating & Disclosure
Public Buildings Only
Commercial Policy Under Consideration
Existing Residential Disclosure

Policy Requirements by Jurisdiction

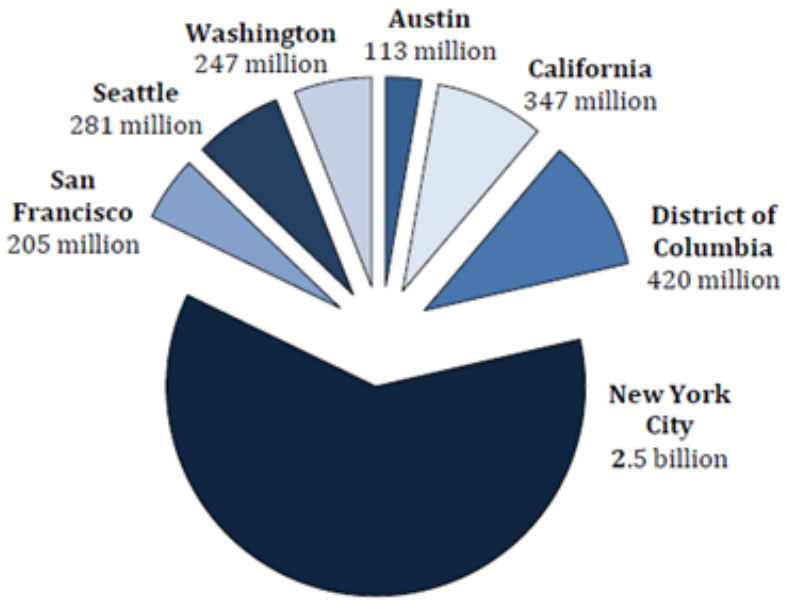
Jurisdiction	Benchmarking (Building Type and Size)		Disclosure					
	Non-residential	Multi-family	On public web site	To local government	To tenants	To transactional counterparties		
						Sale	Lease	Financing
Austin	10k SF+	5+ units	-	✓	-	✓	-	-
California*	5k SF+	-	-	✓	-	✓	✓	✓
District of Columbia	50k SF+	50k SF+	✓	✓	-	-	-	-
New York City	50k SF+	50k SF+	✓	✓	-	-	-	-
San Francisco	10k SF+	-	✓	✓	✓	-	-	-
Seattle	10k SF+	5+ units	-	✓	✓	✓	✓	✓
Washington	10k SF+	-	-	-	-	✓	✓	✓

EPA ENERGY STAR

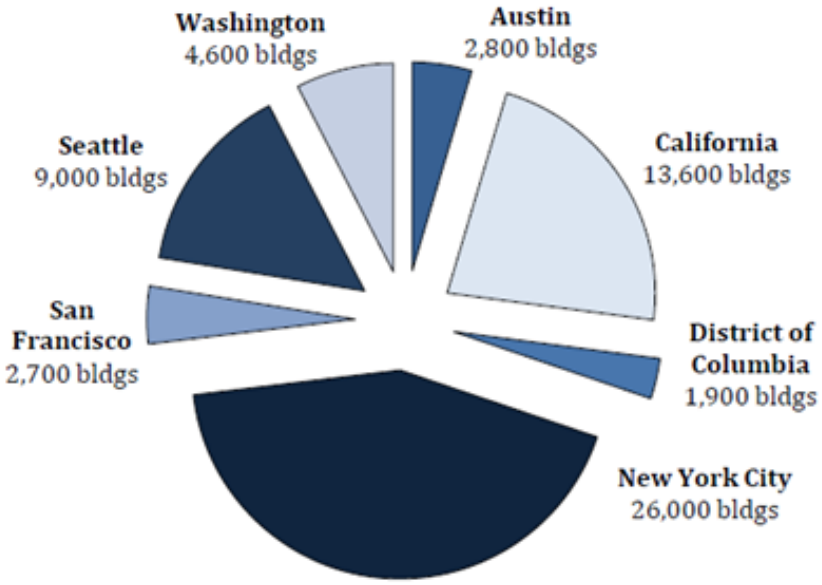
- All U.S. policies leverage EPA Energy Star Portfolio Manager benchmarking
- Already used widely by industry
- More than 250,000 properties benchmarked by end of 2011
- Useful for owners, but lots of room for vendors to add value with more sophisticated products



Policy Impact Projections



Annual Policy Impact Projection on Building Area (in Square Feet) by Jurisdiction



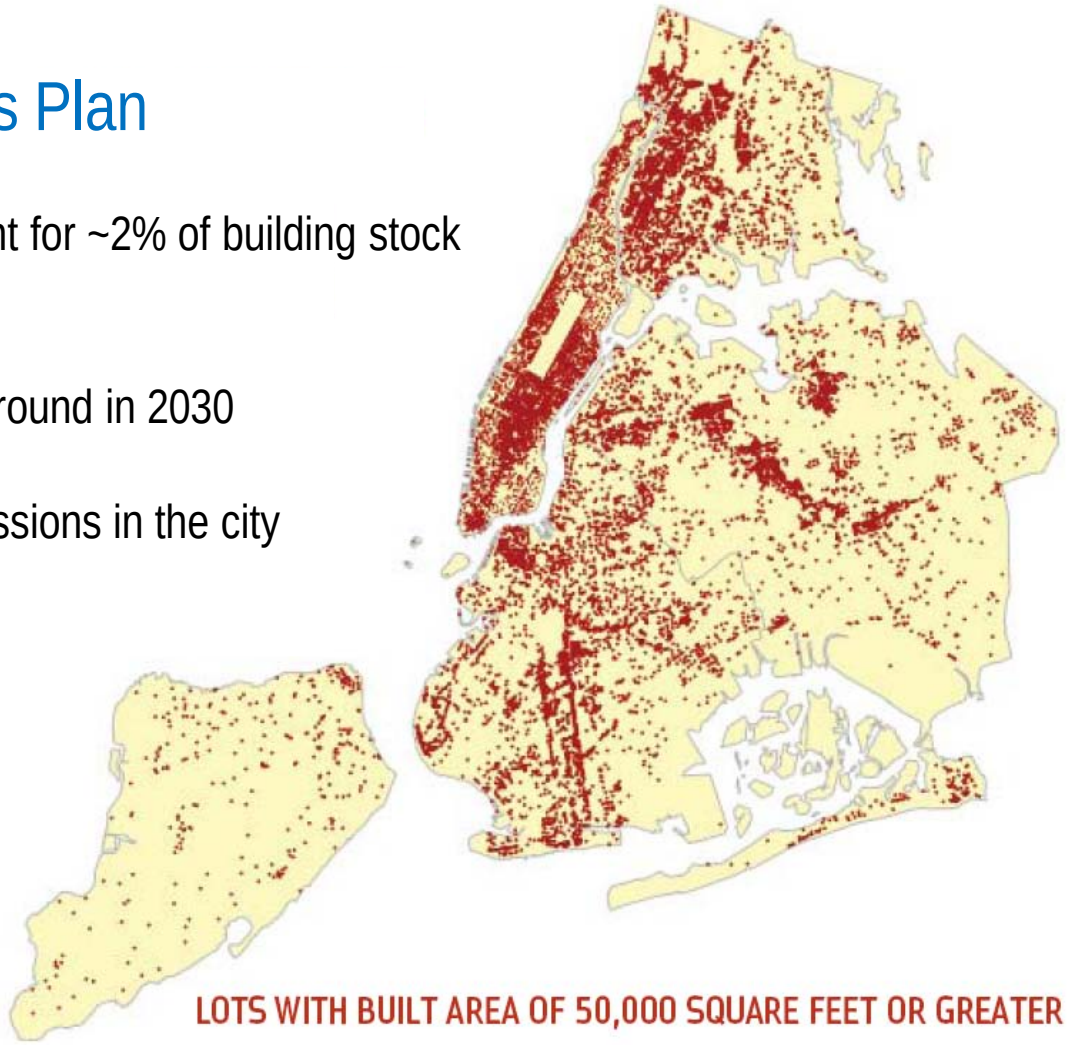
Annual Policy Impact Projection on Number of Buildings by Jurisdiction

- Approximately 4 billion square feet
- More than 3x the floor area of every Walmart, Target, Home Depot, Barnes & Noble and Costco store in America

New York City

NYC Greener Greater Buildings Plan

- Properties over 50,000 SF in NYC account for ~2% of building stock but 50% of floor area
- 85% of NYC's existing buildings will be around in 2030
- Buildings account for 75% of carbon emissions in the city

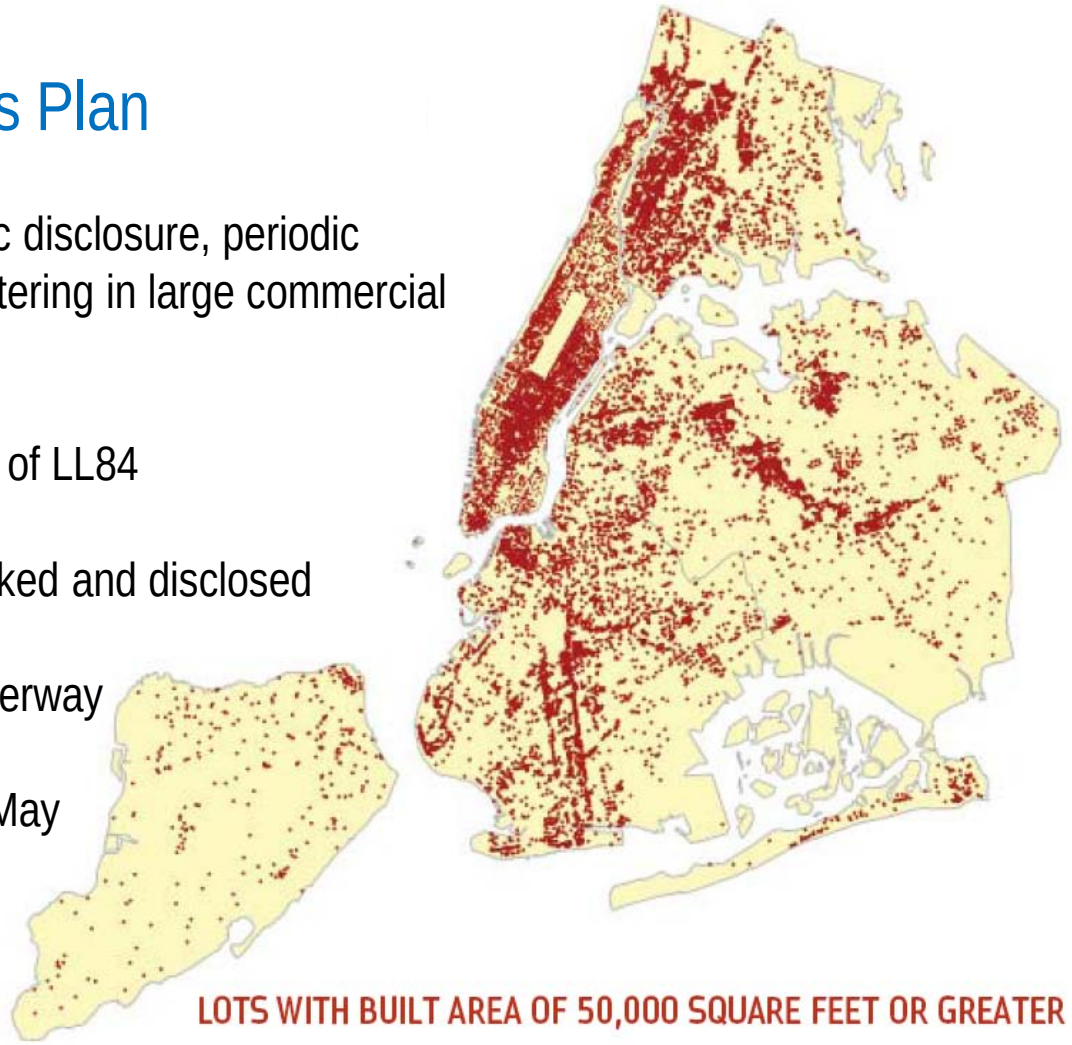


Rendering courtesy NYC Mayor's Office of Long-Term Planning and Sustainability

New York City

NYC Greener Greater Buildings Plan

- Requires annual benchmarking and public disclosure, periodic audits and RCx, lighting retrofits and sub metering in large commercial and multifamily buildings
- Approximately 80% compliance in year 1 of LL84
- More than 2,300 city buildings benchmarked and disclosed
- Initial analysis of benchmarking data underway
- Second deadline for private buildings in May
- First data disclosed publicly in Sept.



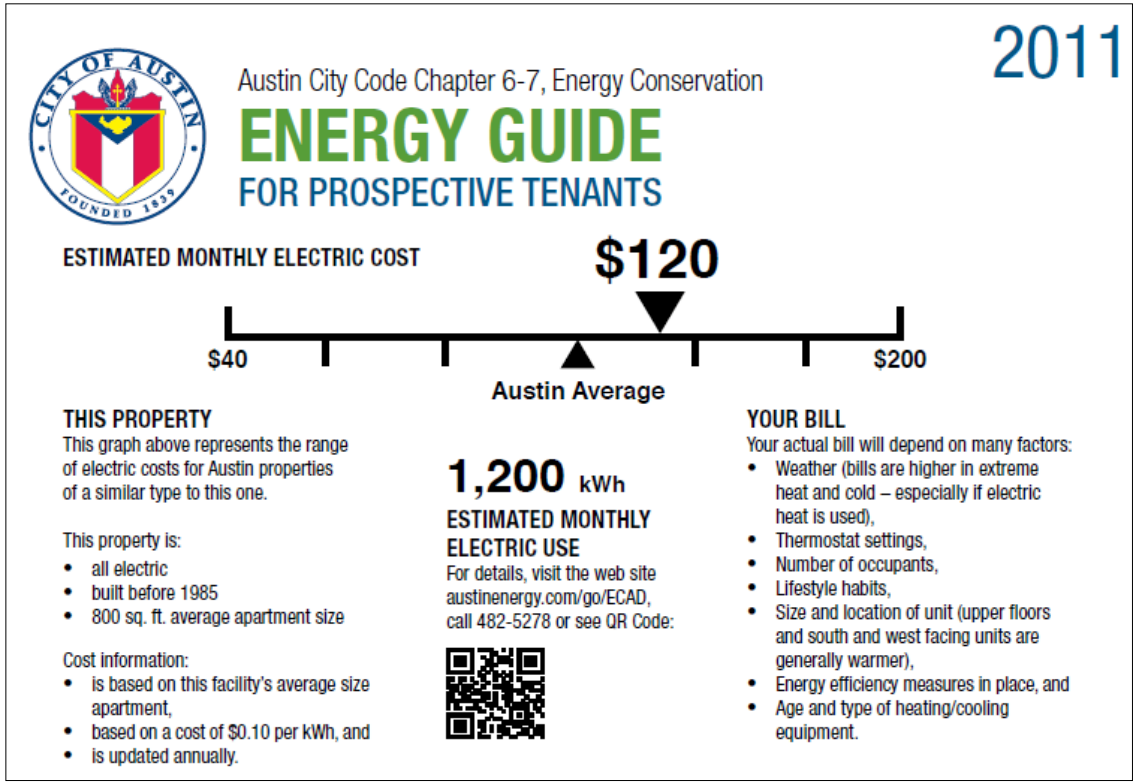
Rendering courtesy NYC Mayor's Office of Long-Term Planning and Sustainability

Austin Energy Conservation and Disclosure Ordinance (ECAD)

- Requires time-of-sale audits for single family homes, audits and potential upgrades for multifamily properties, and annual benchmarking and time-of-sale disclosure for commercial facilities

- MF requirements:
  - Conduct audit
  - Mandatory upgrades for high energy-use properties
  - Post audit results
  - Distribute Energy Guide to prospective tenants

- 535 MF audits completed
- 268 upgrades documented
- $1.7M in rebates for FY 2011



2011

Austin City Code Chapter 6-7, Energy Conservation

ENERGY GUIDE

FOR PROSPECTIVE TENANTS

ESTIMATED MONTHLY ELECTRIC COST **$120**

$40 — Austin Average — $200

THIS PROPERTY

This graph above represents the range of electric costs for Austin properties of a similar type to this one.

This property is:
- all electric
- built before 1985
- 800 sq. ft. average apartment size

Cost information:
- is based on this facility's average size apartment,
- based on a cost of $0.10 per kWh, and
- is updated annually.

1,200 kWh

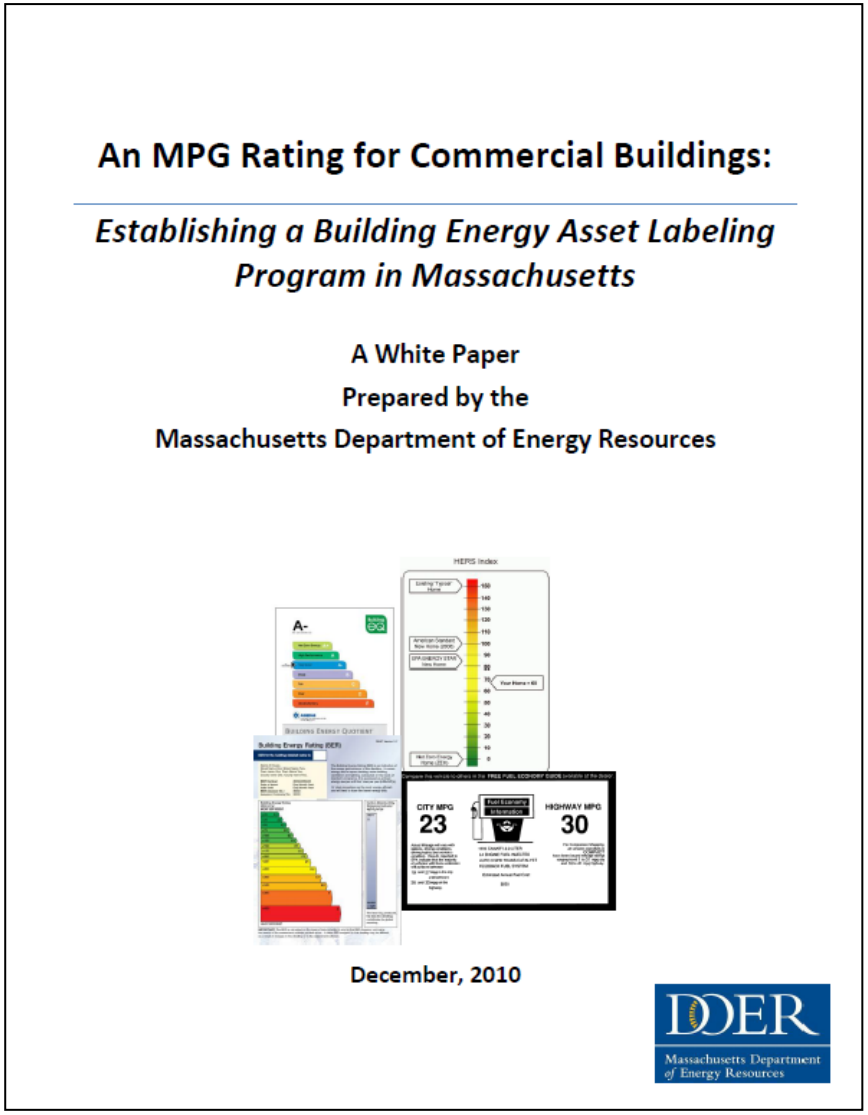
ESTIMATED MONTHLY ELECTRIC USE

For details, visit the web site austinenergy.com/go/ECAD, call 482-5278 or see QR Code:

YOUR BILL

Your actual bill will depend on many factors:
- Weather (bills are higher in extreme heat and cold – especially if electric heat is used),
- Thermostat settings,
- Number of occupants,
- Lifestyle habits,
- Size and location of unit (upper floors and south and west facing units are generally warmer),
- Energy efficiency measures in place, and
- Age and type of heating/cooling equipment.

Massachusetts



Massachusetts "Raising the BAR (Building Asset Rating)" Program

- Two-year, two-phase asset rating pilot for commercial office buildings
- Partners include Boston, Cambridge and Northeast Energy Efficiency Partnerships (NEEP)
- Goal to develop a lower-cost, accurate asset rating useable for new and existing buildings
- Coordination with U.S. DOE and state of California
- Webinar Friday, March 16, 1:30-2:30 PM EST
https://www1.gotomeeting.com/register/987763761

Federal Initiatives

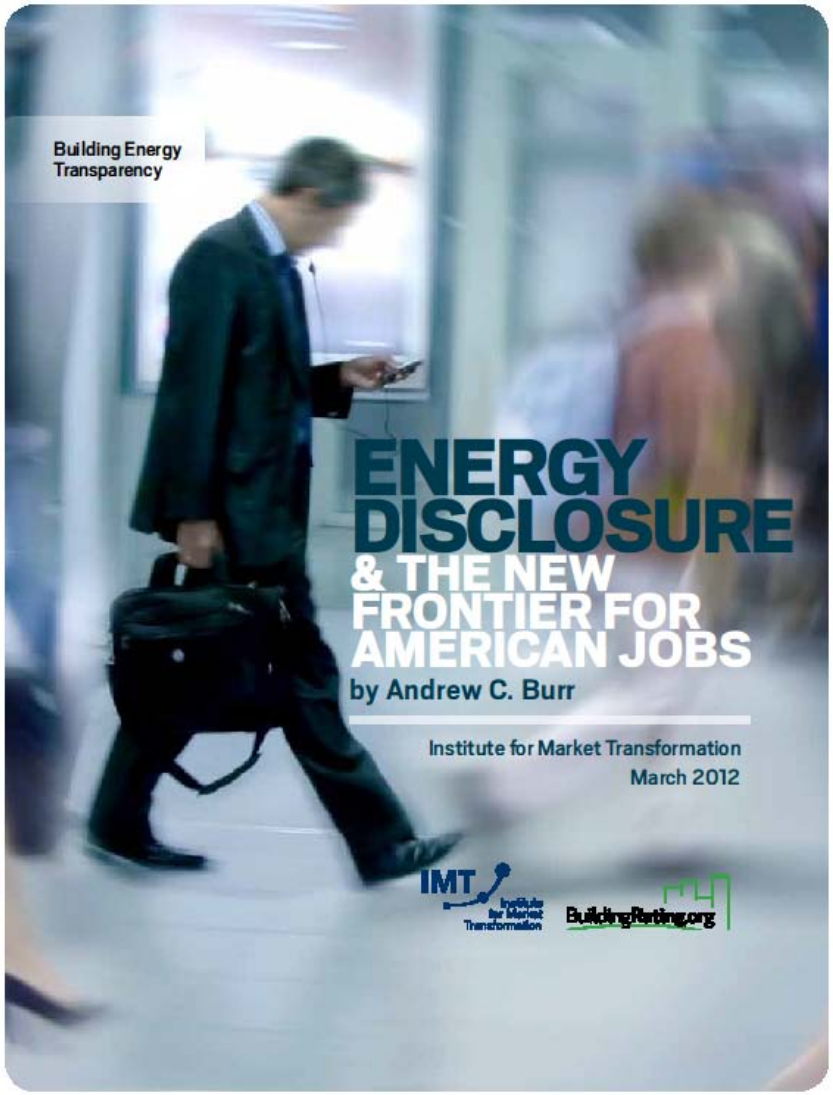
Dept. of Energy and White House becoming more engaged

- Administration
  - Better Buildings Initiative to reduce commercial consumption by 20% by 2020
    - Focus on EE tax deduction, appraisal, state and local policies (Race to the Green)
    - Better Buildings Challenge to leverage benchmarking and reporting
  - Administration has engaged with local policymakers on benchmarking policies
  - Green Button initiative for utilities

- Dept. of Energy
  - Created National Building Rating Program (with EPA) following interagency MOU and Vice President's Recovery Through Retrofit report
  - Commercial asset rating program in development
  - Standard Energy Efficiency Data (SEED) Platform in pilot

- Federal Energy-Efficient Leasing Requirements
  - Passed in EISA 2007, effective late 2010
  - All federal agencies must lease space in Energy Star buildings

Jobs



First report documenting job growth from energy disclosure policies

- Release date late March 2012
- Profiles and quotes from small businesses adding staff and increasing client bases
- KEY TAKEAWAY: Financing not the key barrier. Primary issue is demand.

Jobs

"I tell our green startup companies to focus on San Francisco or New York City. That's where the action is going to be."

- Elton Sherwin, venture capitalist, senior managing director, Ridgewood Capital

"Over the past year, we have **begun working with over 75 million square** feet of real estate in New York and **over 400 new clients** … We anticipate this trend will continue … with each year of compliance reporting."

- Lindsay Napor McLean, exec. VP and COO, Ecological

"Local Law 84 is really a positive force. The fact that **we have competition that didn't exist before** shows that it is growing the market."

- Jeff Perlman, president & founder, Bright Power

"We already have **more work to do than we have people for**."

- Erica Brabon, senior consultant, Steven Winters Associates

"The Seattle benchmarking ordinance is **creating and sustaining real green jobs**."

- Theresa Stroisch, CEO, Sustaining Structures

"We fully expect that **public disclosure will motivate clients** to further improve performance."

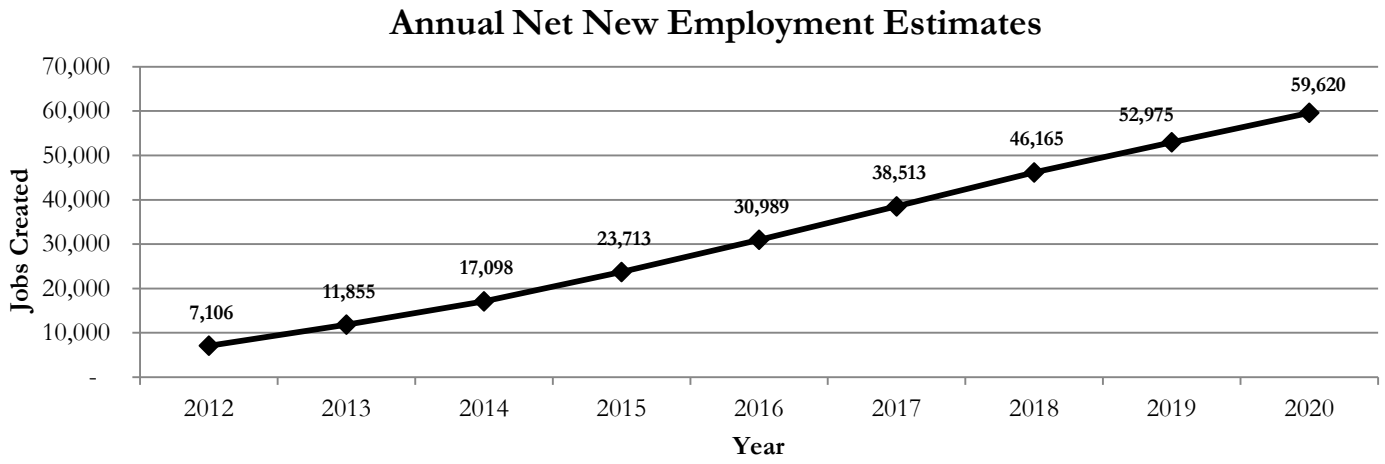
- David Diestel, senior VP of operations, FirstService Residential Management

Analysis of Job Creation and Energy Cost Savings from Building Energy Rating and Disclosure Policy

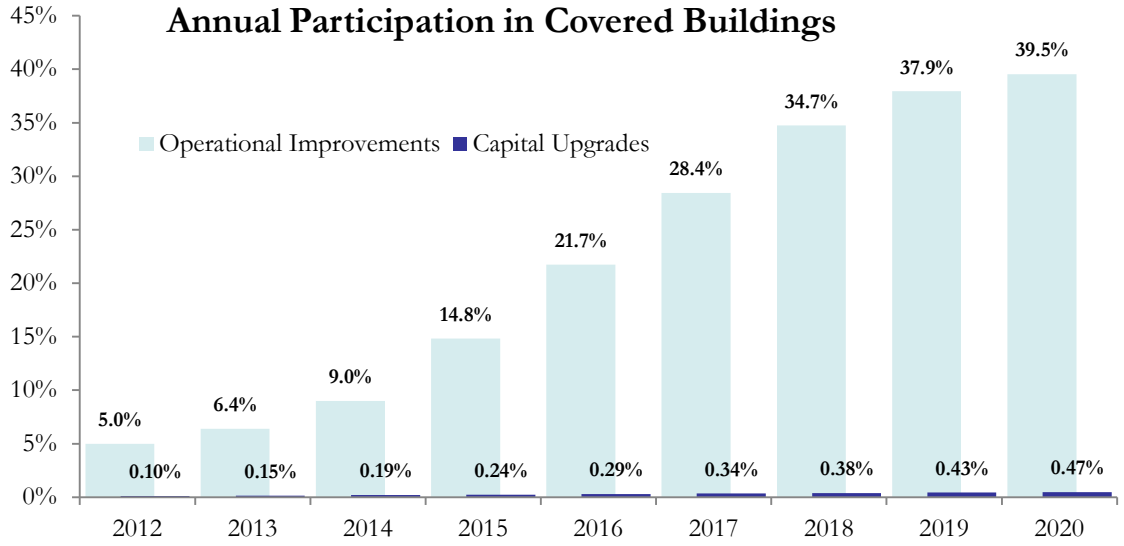
- First economic analysis of job creation and energy savings impacts from disclosure policy
- Job impacts modeled by Political Economy Research Institute (PERI) at UMass
- Energy savings estimates vetted by advisory panel of real estate pension fund investors, commercial property managers, and academics
- Release date late March 2012

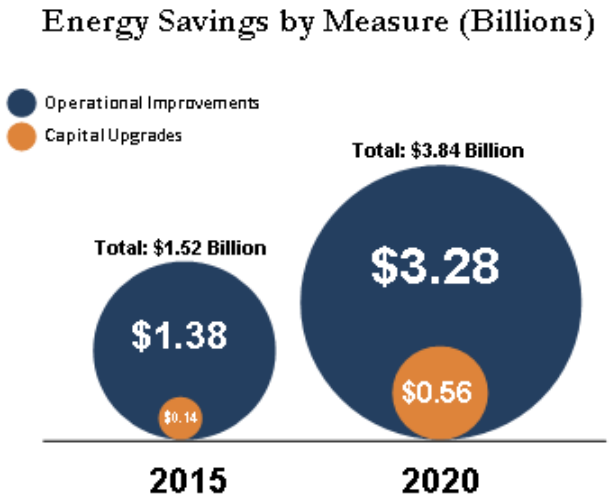
Results

- Create more than 23,000 net new jobs in 2015 and more than 59,000 net new jobs in 2020 resulting from increased demand for energy efficiency services and technologies, and from the reinvestment of energy cost savings into the economy.
- Reduce energy costs for building owners and businesses by ~$3.8 billion by 2015 and more than $18 billion by 2020.
- Generate more than $7.8 billion in private investment in energy efficiency measures by 2020, yielding approximately $3 in energy cost savings for every dollar invested.
- Reduce total annual energy consumption in the U.S. building sector by approximately 0.2 quadrillion BTUs by 2020, equal to taking more than 3 million cars off the road each year.



Jobs


Annual Participation in Covered Buildings
Operational Improvements
Capital Upgrades
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
5.0%
6.4%
9.0%
14.8%
21.7%
28.4%
34.7%
37.9%
39.5%
0.10%
0.15%
0.19%
0.24%
0.29%
0.34%
0.38%
0.43%
0.47%
2012
2013
2014
2015
2016
2017
2018
2019
2020


Energy Savings by Measure (Billions)
Operational Improvements
Capital Upgrades
Total: $1.52 Billion
$1.38
$0.14
Total: $3.84 Billion
$3.28
$0.56
2015
2020

Data Challenge

Some owners cannot access tenant energy consumption data

- Owners need whole-building energy data to benchmark and drive efficiency, but separate meters often prevent multi-tenant owners from accessing tenant data
- Utilities have mostly not been willing to accommodate because of confidentiality and perceived lack of value
- Problem not unsolvable – meter aggregation masks tenant usage and enables benchmarking
- Some utilities are leaders
  - ComEd (Chicago) is a national leader
    - Piloted a data access platform for owners that resulted in several thousand buildings benchmarked in only a few years
  - ConEd, Avista, Puget Sound Energy, Austin Energy among utilities providing solutions

Data Challenge

Data Access and Transparency (DATA) Alliance

DATA | Data Access and Transparency Alliance

BOMA International · The Real Estate Roundtable · IMT Institute for Market Transformation

- BOMA, RER, IMT, USGBC form DATA Alliance to work with utilities and regulators to secure better access to utility data
- July 2011: NARUC approves resolution calling on regulators to provide better data access to commercial owners
- USGBC Existing Authorities memo identifies data access as key EE barrier and calls for increased federal involvement
- Collaboration with administration on expanding Green Button initiative to include commercial data access

Key Lessons – Policy Adoption

1. Leading states and cities are thinking beyond disclosure to other building energy performance policies

2. Support from local building owners is mixed but allies exist. Some support from real estate industry is typically needed

3. Establish data access prior to enacting bill or include as a requirement

4. Begin with larger commercial buildings. Reaching owners of smaller buildings has been problematic even in large metropolitan areas

5. Public disclosure should vastly increase program impact, but will make building owners more uncomfortable

6. Cities/states should benchmark and disclose before private sector

7. Consider running commercial and residential legislation separately

Key Lessons – Policy Implementation

1. Implementing agencies must have appropriate resources to administer policies
   - Large cities have 2 FTEs
   - Public-private partnerships to offset cost and reach stakeholders

2. Outreach and training are the most critical aspects to compliance

3. At least 12 months of ramp-up time needed following adoption

4. Motivated business sector can contribute to high compliance
   - EE services providers have every reason to help “market” the law

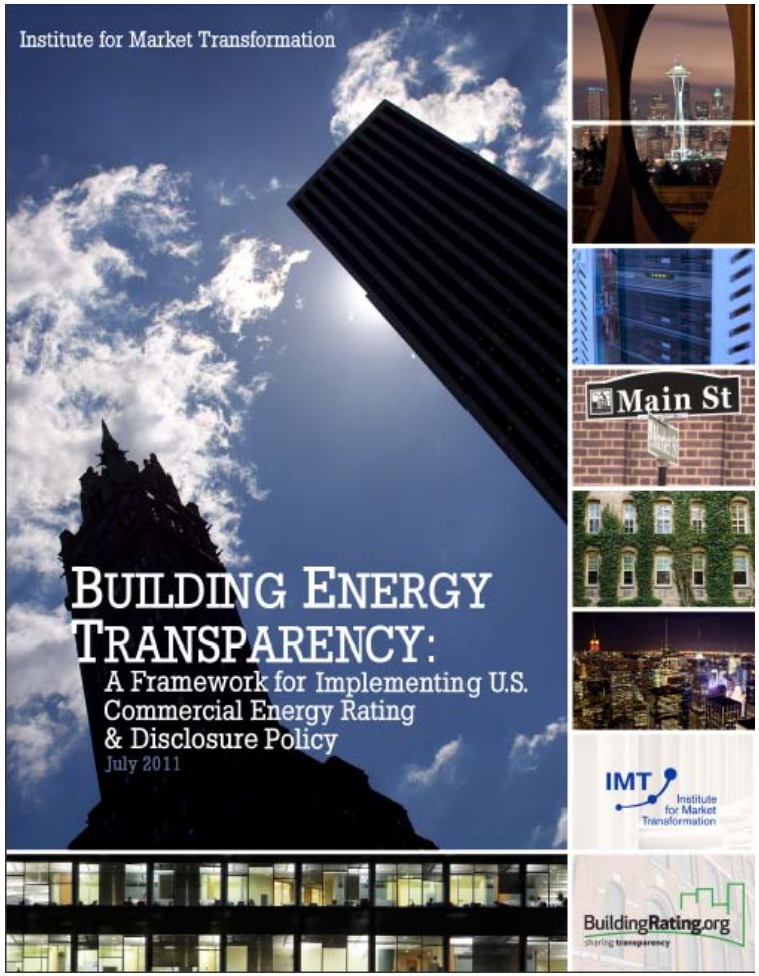
5. Policy standardization is becoming an issue for industry

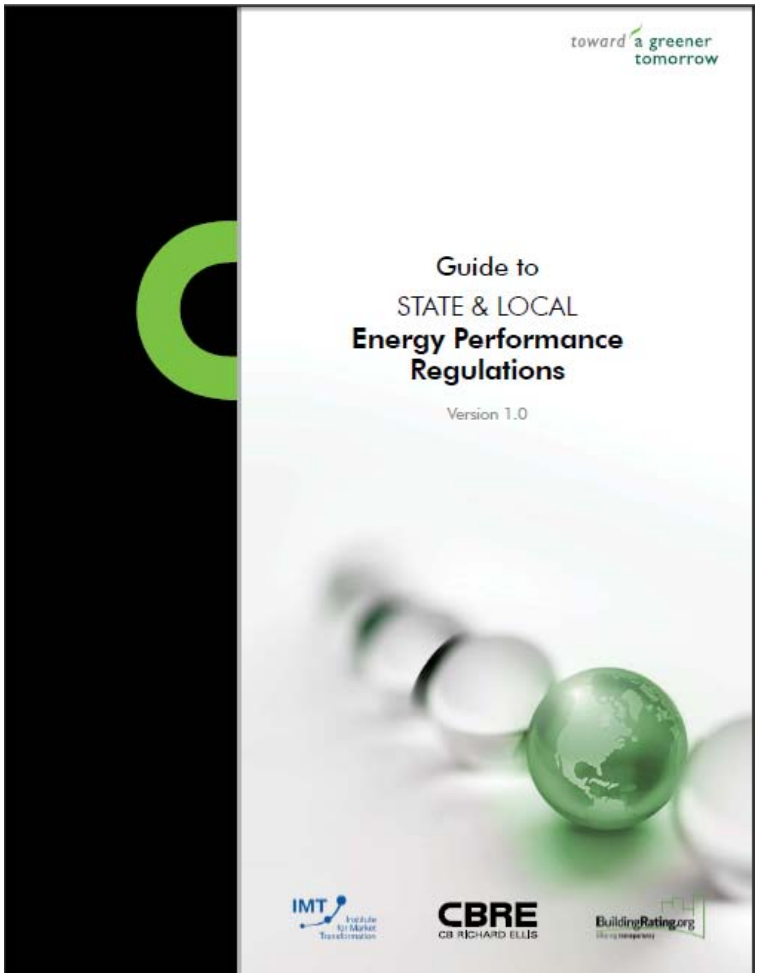
Energy Disclosure Policy Roundtable

- Feb. 29, 2012 in Washington, DC, co-conveners SFDOE, USDN and ULI
- Attendees included:

- Boston Office of the Mayor
- New York City Mayor's Office of Long-Term Planning & Sustainability
- San Jose Office of the Mayor
- Philadelphia Mayor's Office of Sustainability
- Chicago Office of the Mayor
- Cleveland Office of the Mayor
- Austin Energy
- Berkeley Office of Energy & Sustainable Development
- California Energy Commission
- District of Columbia Department of the Environment
- Massachusetts Dept. of Energy Resources
- Portland Bureau of Planning and Sustainability
- San Francisco Dept. of the Environment
- Seattle Office of Sustainability & Environment
- Boulder Local Environmental Action Division
- Cambridge Community Development Dept.
- City of Eugene
- City of Minneapolis
- Alameda County, CA
- Montgomery County, MD
- U.S. Green Building Council
- Civic Consulting Alliance
- U.S. Environmental Protection Agency, ENERGY STAR division
- U.S. Dept. of Energy
- White House Council on Environmental Quality
- IDA Science and Technology Policy Institute
- Greater Philadelphia Innovation Cluster (GPIC) for Energy-Efficient Buildings
- University of Pennsylvania
- Urban Land Institute

Resources


Institute for Market Transformation
BUILDING ENERGY TRANSPARENCY:
A Framework for Implementing U.S. Commercial Energy Rating & Disclosure Policy
July 2011
Main St
IMT
Institute for Market Transformation
BuildingRating.org


toward a greener tomorrow
Guide to
STATE & LOCAL
Energy Performance Regulations
Version 1.0
IMT
CBRE
CB RICHARD ELLIS
BuildingRating.org

Useful References

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- 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
- www.energydataalliance.org
- www.buildingrating.org/Building_Energy_Transparency_Implementation_Report
- www.cbre.com/USA/Sustainability/Envirometrics

Q&A

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