

Multi-State Energy Labeling Pilot

Chris Wagner, NASEO Program Manager

Session Overview

1. Background and context on residential energy labeling and scorecards
2. Description of the Multi-State Pilot
3. Four state case studies on pilot programs and results
4. Overview of realtor/appraiser training and cross-cutting implementation lessons
5. Q&A

The Value of MPG

MPG helps consumers:

- Make choices between options
- Behave efficiently
- Take action based on market signals
- Gain clarity with a complex issue

The housing sector lacks a parallel metric(s) for informing homeowners/homebuyers about energy efficiency.



Solution: banners on houses!?!?

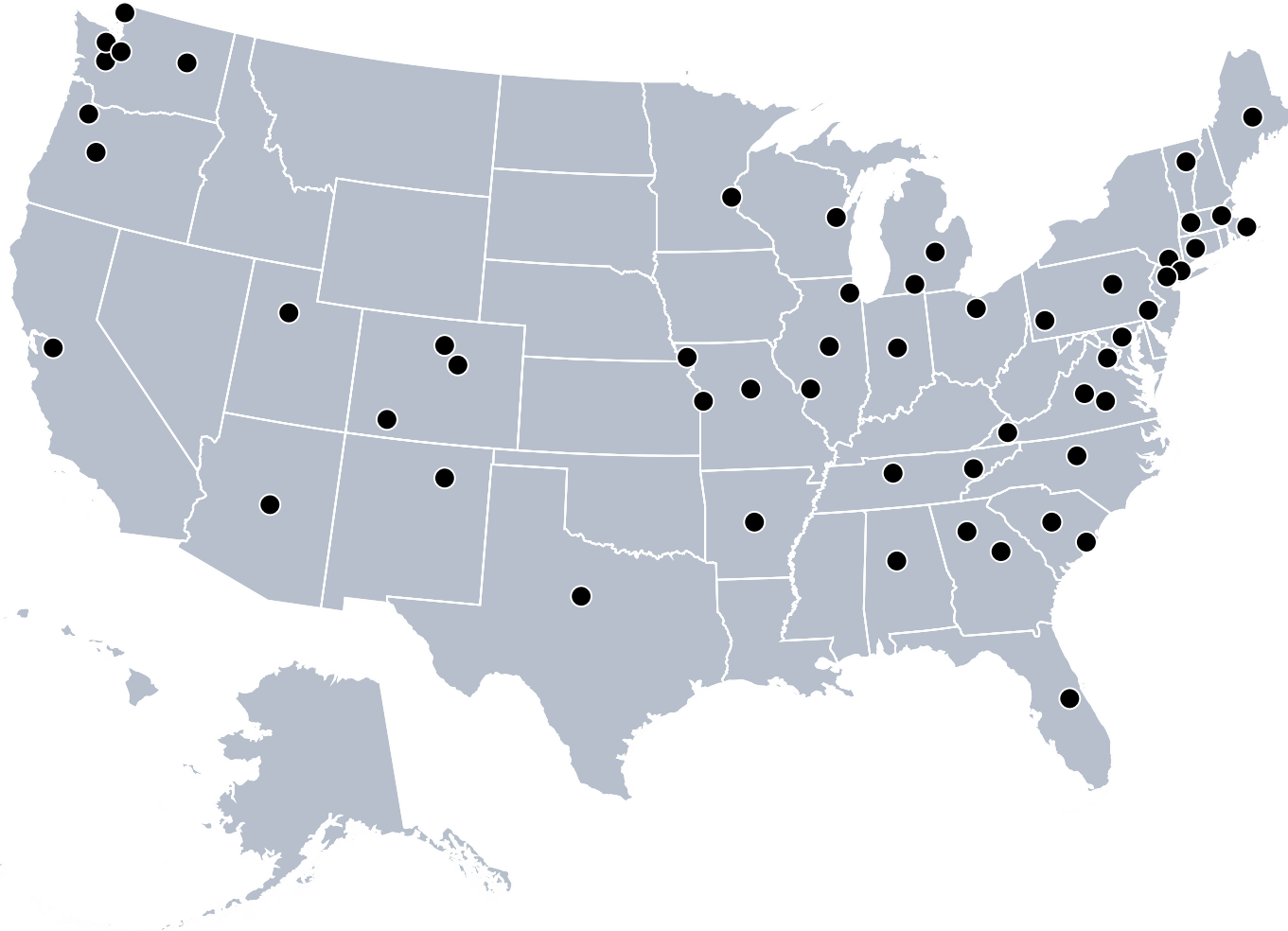


Energy Scorecards

Definitions in the residential context:

- 1. Energy labeling/rating:** providing consumers information on relative energy consumption of homes.
- 2. Energy score:** a standardized *metric* that rates the efficiency of a home's energy *assets* (systems/envelope) against other similar homes.
 - Variety of metrics: kwh/year; MMBTU/year; 1-10 score.
 - Controls for *operations* (e.g. # of people, plug loads).
- 3. Energy scorecard:** the visual documentation of one or more energy scores provided to a homeowner.
 - Also known as an **energy label**.
 - Often accompanied by a **report** on potential upgrades.

Residential Energy Scorecard Programs or Pilots



Sources: DOE Home Energy Score; Earth Advantage Institute/CakeSystems; TVA; Minnesota Center for Energy and Environment

Scorecard Example



The Vermont Energy Performance Home Score (VEP-Home Score) ranks a home's energy consumption based on typical occupancy and weather. *The lower, the better.* A low VEP-Home Score identifies a home in Vermont as energy-efficient, with lower energy costs and energy usage.

Draft Vermont Energy Performance Home Score

150 THIS HOME'S SCORE

The VEP-Home Score* shows the estimated total annual building energy use (electricity and fuel in MMBtu) of this home for one year. *The lower, the better!*



HOME INFORMATION

Location:
123 Main Street
Anytown, VT 05000

Year built: 2002

Size of home (sq. ft.): 1,723

Fuel mix: oil, wood

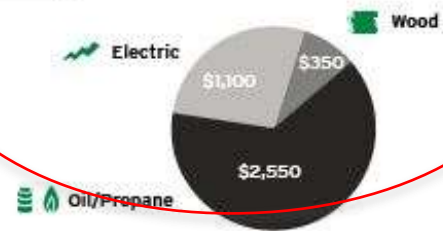
Other energy features:
solar hot water

Score issue date: 6/23/13

Assessor:
Name: John Doe
Phone: 802-555-1111

MMBtu

\$4,000 ESTIMATED ANNUAL ENERGY COST*



Annual Energy Cost

The U.S. Department of Energy (DOE) Home Energy Score uses a 10-point scale to describe your home's efficiency, where 10 is most efficient.

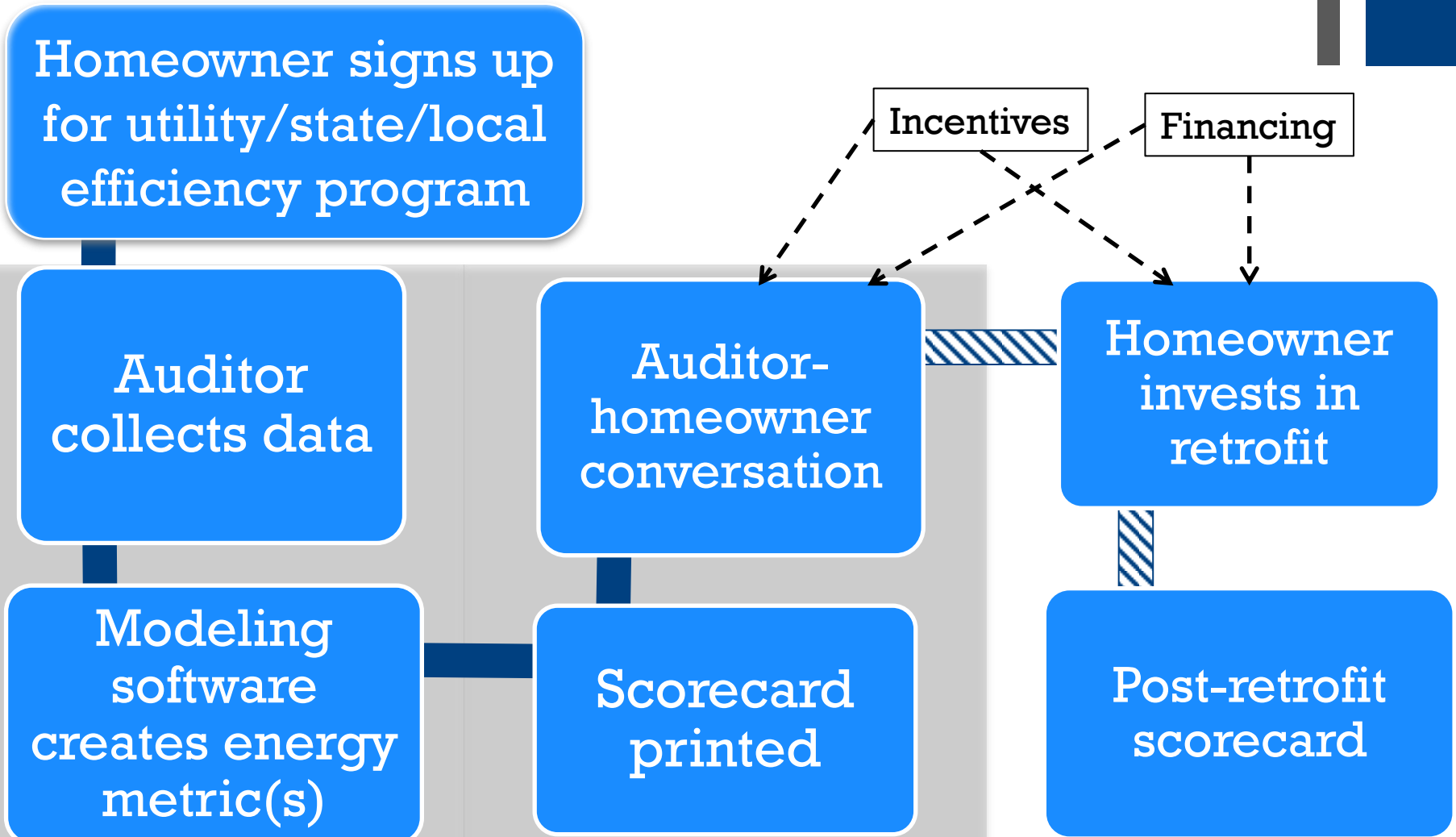
For more information about this home's national score, visit <http://homeenergyscore.gov/> 828.0988.

DOE Home Energy Score: 1 to 10 score



*Energy use and costs are estimates only. Actual usage and costs may vary and are based on many factors such as weather and occupant behavior, including use of wood stoves. The Vermont Energy Performance Home Score takes into account the energy-efficient features included in the home on the date the Score was issued, assuming average occupant behavior. Actual energy use will vary depending on how the building is operated, and costs will vary as fuel prices change over time. MMBtu = 1,000,000 British thermal units (Btu) of energy.

How Scorecards Fit Into Residential Energy Efficiency Programs



Ideally, these steps happen at initial house visit

NASEO's Involvement: Multi-State Energy Scorecard Pilot

- Funded by a 2010 U.S. State Energy Program (SEP) Competitive Award from the U.S. Department of Energy
- State Energy Offices from four states participated:
 - Alabama, Massachusetts, Virginia, Washington
- NASEO coordinated project steering committee and process evaluation contractor (The Cadmus Group)
 - Currently developing case studies.
 - Plans to promote project results and evaluation findings.



Department of Commerce
Innovation is in our nature.

Overview of the Multi-State Project

- Premise: utilize energy scorecards and other engagement strategies to increase homeowner knowledge of and confidence in energy-efficiency upgrades.
- Earth Advantage helped states integrate energy scorecards into residential programs.
- Other program strategies:
 - Training real estate professionals/appraisers
 - Close engagement with auditors and contractors
 - Marketing/thermal imaging
 - Financing/incentives
- Project will conclude in March 2014. The Cadmus Group is drafting a process evaluation report.

Home Energy Labeling

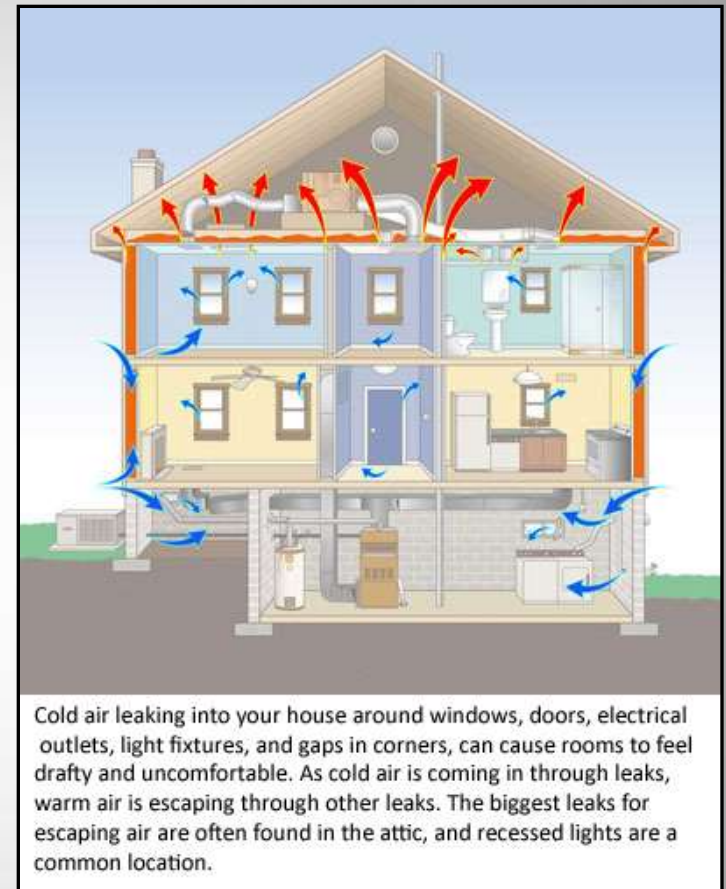


Al Christopher – Director of Energy
Virginia Department of Mines, Minerals and Energy

Pilot Project Highlights

Virginia's approach to the Pilot Project built on the initial successful efforts in Central Virginia by LEAP and expanded to other geographic areas focusing on comprehensive retrofits and deep impact savings.

- 356 home retrofits
- 28% audit-to-retrofit conversion rate
- Exceeded initial average home energy savings target of 20%





www.cafe2.org

COMMUNITY ALLIANCE FOR ENERGY EFFICIENCY (cafe²)

Community Housing Partners (CHP) recently formed the cafe² to orchestrate and facilitate the energy efficiency home retrofit project in the City of Roanoke and the Town of Blacksburg.

LOCAL ENERGY ALLIANCE PROGRAM (LEAP) Directing the transformation of the residential energy efficiency retrofit sector in Charlottesville and Arlington County in Northern Virginia.



www.leap-va.org



www.rrea-va.org

RICHMOND REGIONAL ENERGY ALLIANCE (RREA)

Fostering a market for residential energy efficiency retrofits in the Richmond metropolitan area.

Property Search: More Search Options

All of the available search fields below are optional, though at least one must be entered to perform a search.

Type

Search By Price Mortgage Payment

Price to

Subdivision

Bedrooms

List View | Map View | Gallery View | Detail View

Charlottesville (city Of) - \$418,000



Photos 1 to 5 of 30



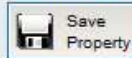
Document



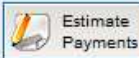
Document

View Page: 2 3 4 5 6

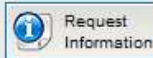
Detail Options:



Save Property



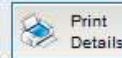
Estimate Payments



Request Information



Email Friend



Print Details



Google Earth

Changes to 701 Ridge Street under ownership of Aaron Wunsch & Jillian Galle

Exterior

- Storm windows installed
- Brickwork pointed where necessary
- Chimneys capped with stainless steel
- Roofs painted
- Gutters hung from N side of main block and 2nd floor bathroom projection
- Underground drainpipe system rebuilt (note: empties at N side of lot, under hollies; see flexible black pipe)

Interior, General

- Forced-air heating and air conditioning installed on 2nd floor
- Sealed and insulated according to LEAP standards
- Comprehensively repainted
- Holes in floors from removed pipes and electrical conduits plugged

Information

Baths	3
Baths	1
sq ft(Finished)	2,087
sq ft(Unfinished)	545

Side Entrance, Partial, Walk Out, Windows, Workshop
Ceiling Fan(s), Crown Molding

Home Performance with ENERGY STAR® Summary of Energy Improvements Performed



Home Performance Improvements:

* An energy audit conducted March 2011 was brought up to an HR and demand pointed into what was done.

* An energy audit performed and several HR only items addressed (insulation, HR, etc.)

* Ducts were sealed and some replaced.

* New Radiant heat added and many improvements made throughout the HR.

Home Performance Results Achieved:

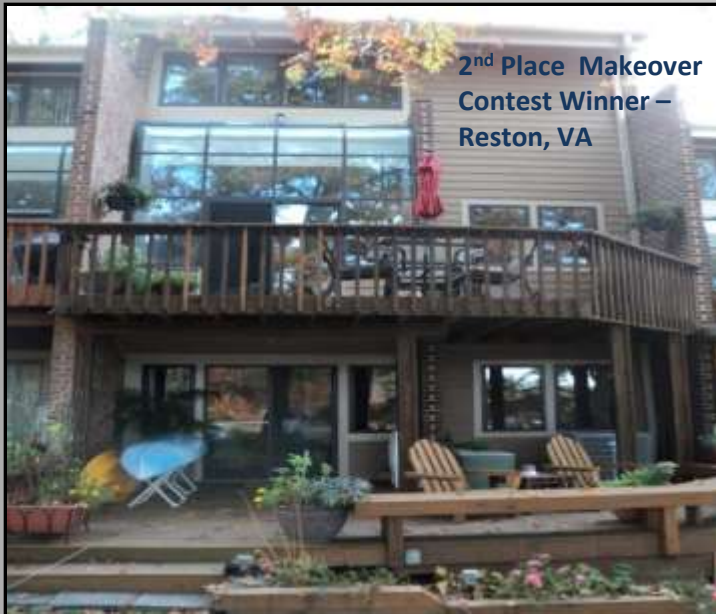
The overall energy audit for 2011 HR was 4.0 (scale 1.0 is best, 5.0 is worst). The overall energy audit for 2012 HR was 3.0 (scale 1.0 is best, 5.0 is worst). The overall energy audit for 2013 HR was 2.0 (scale 1.0 is best, 5.0 is worst).

Environmental Impact of Improvements:
Energy use and CO₂ emissions will be reduced from targeted levels.

Work Completed on:
November 23rd 2011
Aaron Wunsch



Home Performance with ENERGY STAR®
ENERGY STAR is a U.S. Environmental Protection Agency (EPA) program that helps consumers choose energy-efficient products and services. For more information, visit www.energystar.gov.



Energy Improvement Measures Implemented

- Air sealed attic\added cellulose insulation
- Installed whole house fan cover and attic tent over the pull down stairs
- Air sealed laundry room
- Removed two soffit overhands & reinsulated



Energy Improvement Measures Implemented

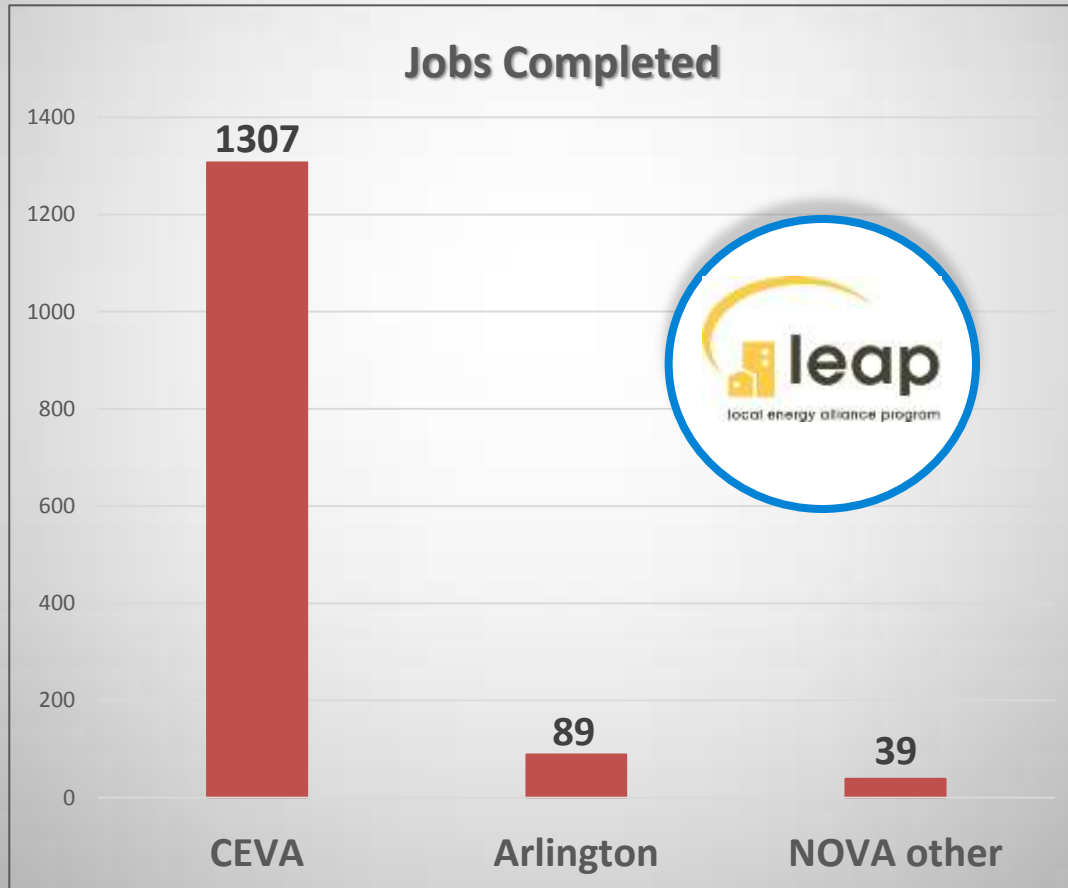
- Replaced broken heat pump, the water heater, refrigerator, lights with dimming CFL's, and the bathroom fan with timers
- Sealed attic floor and insulated to R-50 with cellulose
- Enclosed and sealed the exposure points in the attic
- Sealed ductwork in the attic
- Improved outdoor wall sealing, replaced missing insulation, and insulated



LEAP Performance BBNP+SEP

CEVA 3.6% market penetration over 3 years

(35.9K owner-occupied homes in Charlottesville and Albemarle County)





YOUR HOME ENERGY PARTNER - A non-profit helping homeowners solve high home energy bills and comfort issues

THE BANKS FAMILY
Richmond's First Home Energy Makeover Contest Winner

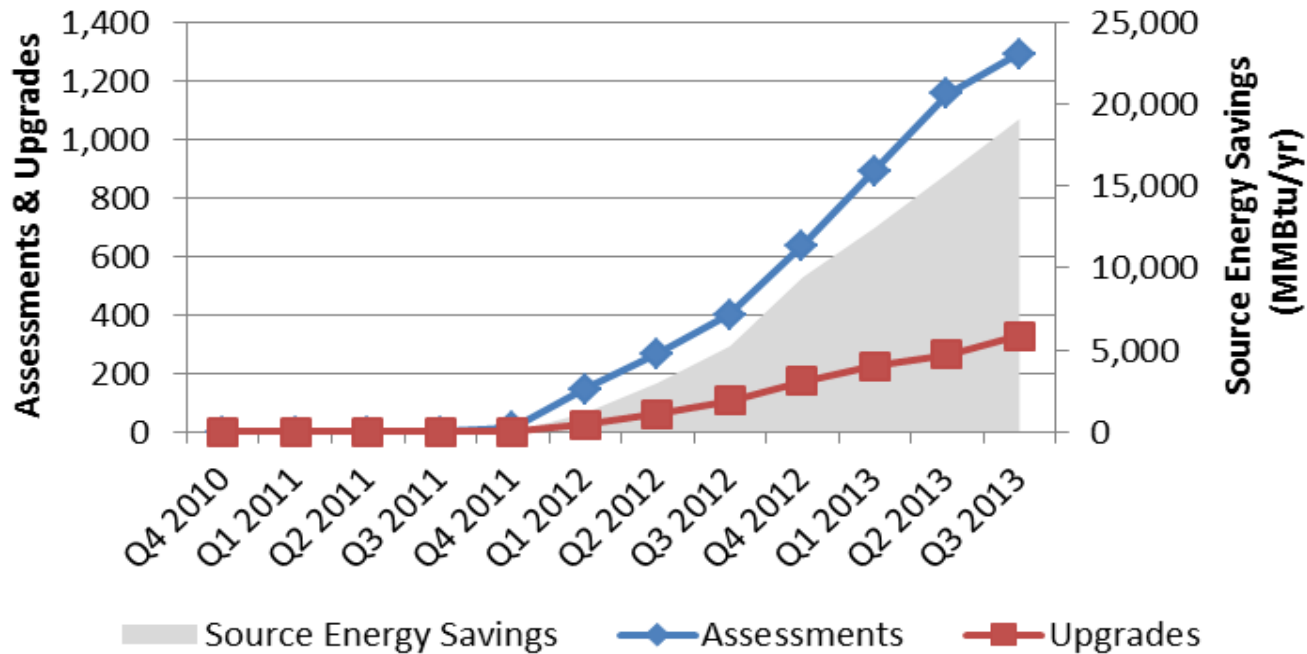
Projected Energy Savings: 59% annual
Projected Cost Savings: 52% or \$1,700 annual

HOMESOWNER QUOTE:
"My family and I are so happy to finally have some comfort in our home...and to finally see our energy bills decrease. Not having to worry about purchasing oil, we can focus on other things. It's going to help my family tremendously. I really appreciate what RREA has done for us and will be forever grateful."
- Phyllis Banks

The bottom of the graphic features the RREA logo on the left and the Energy Star logo on the right. The Energy Star logo includes the text 'HOME PERFORMANCE WITH ENERGY STAR'.

- **12%** of retrofit customers used RREA low interest rate low product.
- **33%** of those receiving an EPS audit went on to do energy upgrade work – RREA offered a \$500 rebate.
- **320** completed audits - 101 retrofits.
- EPS Audits - **8 to 12** EPS audits a month (average cost was \$325). Once RREA provided a \$250 audit incentive then approximately **25 to 30** audits a month.
- Community outreach marketing worked better than paid advertising.
- RREA home energy makeover contest had 1,500 entries for a \$10,000 energy makeover.

VDMME, VA (SEP)



Total Audits	Residential Single-Family	Residential Multi-Family Units	Residential Multi-Family Buildings	Commercial Buildings	Industrial Buildings	Agricultural Buildings
1,292	356	0	0	0	0	0

TOTAL ENERGY SAVINGS (as of 9/30/13)				Energy Cost Savings
Electricity (kWh)	Natural Gas (therms)	Heating oil (gallons)	LPG (gallons)	
849,439	70,270	0	15,940	\$ 164,926

Avg. % Savings Per Upgrade/# of Upgrades: 22.15% / 356

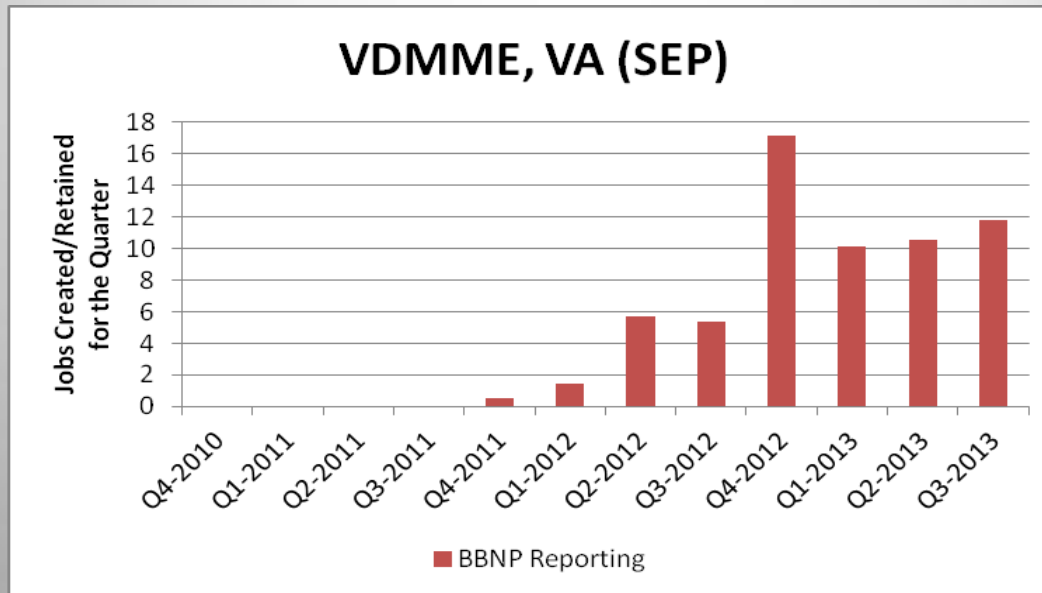
FINANCING	
Amount loaned out (Residential)	\$335,248
# of Loans (Residential)	42
Average Loan Amount (Residential)	\$7,982

Workforce Development Synopsis

The Workforce table below shows the total number of workers trained and certified reported by the grantee and the number of active participating contractors at the end of September 2013.

Workforce (32,533 hours worked)	
Number of Trained Workers	301
Number of Certified Workers	164
Active Participating Contractors (Q3-2013)	49

VDMME Jobs Created/Retained for the Quarter



Training and Quality Assurance for the Residential Market Place

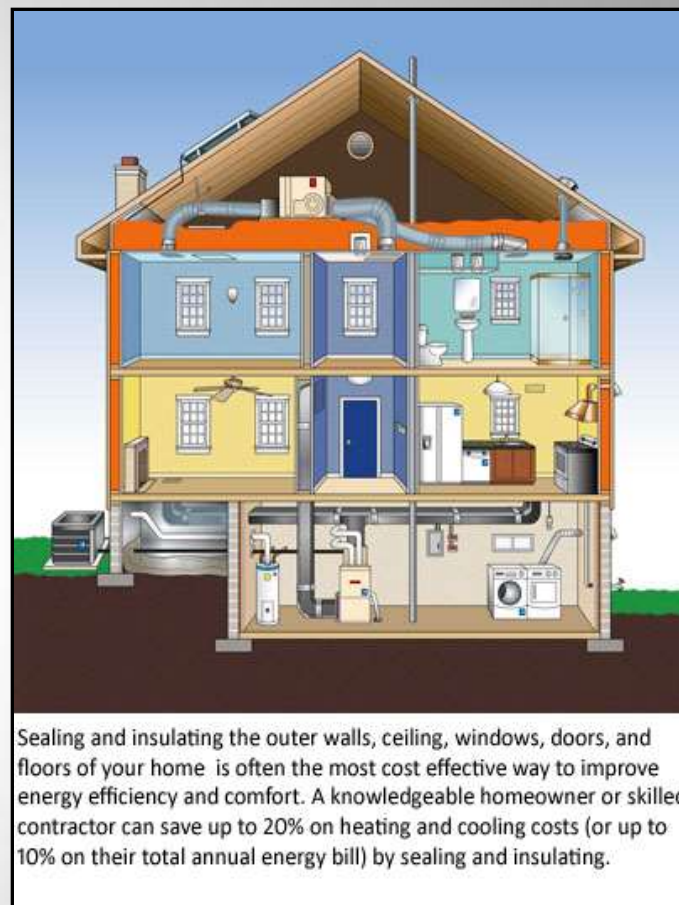
While the program provided workforce training and quality control/quality assurance processes for a network of home raters, energy auditors, contractors, remodelers and equipment installers, the programs also provided STAR (Sustainability Training for Accredited Real Estate Professionals) to appraisers and the real estate community about the features and benefits of new and existing high performance homes and the advantages of energy efficiency and energy savings.



Lessons Learned

Lessons learned have been in all of the following areas:

- Consumer awareness
- Unique homeowner outreach strategies
- Workforce training and quality assurance
- Financial incentives
- Linkages with local partner resources
- Facilitating service delivery
- Information sharing
- Policy awareness and advocacy
- Planning for ongoing operations



AlabamaWISE

Worthwhile Investments Save Energy

Elizabeth M. Grimes
Energy Division
ADECA

February 6, 2014
NASEO 2014 Energy Policy Outlook Conference



Background

- ⦿ No mandated efficiency program requirements
- ⦿ Only a few localized rebate programs by Tennessee Valley Authority (TVA) distributors
- ⦿ AlabamaWISE first major residential efficiency program
 - > Goal of transforming residential retrofit market
 - > Pilot program targeted in Birmingham and Huntsville

What is AlabamaWISE?

- ⦿ Community-based residential energy efficiency program
- ⦿ Regional Energy Alliance model
 - > Program administration by local non-profit, Nexus Energy Center, with assistance from the Southeast Energy Efficiency Alliance (SEEA)
- ⦿ Focus on whole home performance
 - > Comprehensive energy assessment and EPS
 - > Low rebates and attractive financing designed for consumer action
 - > Quality assurance inspections
 - > Moisture management, health/safety and allergy, comfort
 - > AlabamaWISE Contractor network

Additional Program Features

- ⦿ Market-based and contractor-centric
- ⦿ Home Performance with ENERGY STAR
- ⦿ Community-based marketing
 - Local events, faith-based organizations, local non-profit partnerships, homeowner associations, large established employers, etc.
- ⦿ Detailed training for contractors and other market actors
 - REALTORS, appraisers, lenders

AlabamaWISE Results (2011 – 2013)

- ◎ > 2,000 energy assessments (720 from Alabama SEP)
- ◎ > 1,500 retrofits (624 from Alabama SEP)
- ◎ 20% energy savings per retrofit
- ◎ \$8.5 million homeowner investment
- ◎ \$200K loaned in first 6 months of financing program with no defaults
- ◎ Over 200 REALTORS and appraisers trained

Washington State Department of Commerce
State Energy Office

RePower Kitsap

Glenn Blackmon
February 6, 2014



Department of Commerce
Innovation is in our nature.

RePower Kitsap: Vision and Approach

- The Vision: An economically viable home performance industry serving consumers in Kitsap County
- The Approach:
 - Build demand for home energy assessments and retrofits
 - Provide tools and training to home performance contractors
 - Emphasize comprehensive assessments and deep retrofits
 - Improve financing options
 - Demonstrate the business model



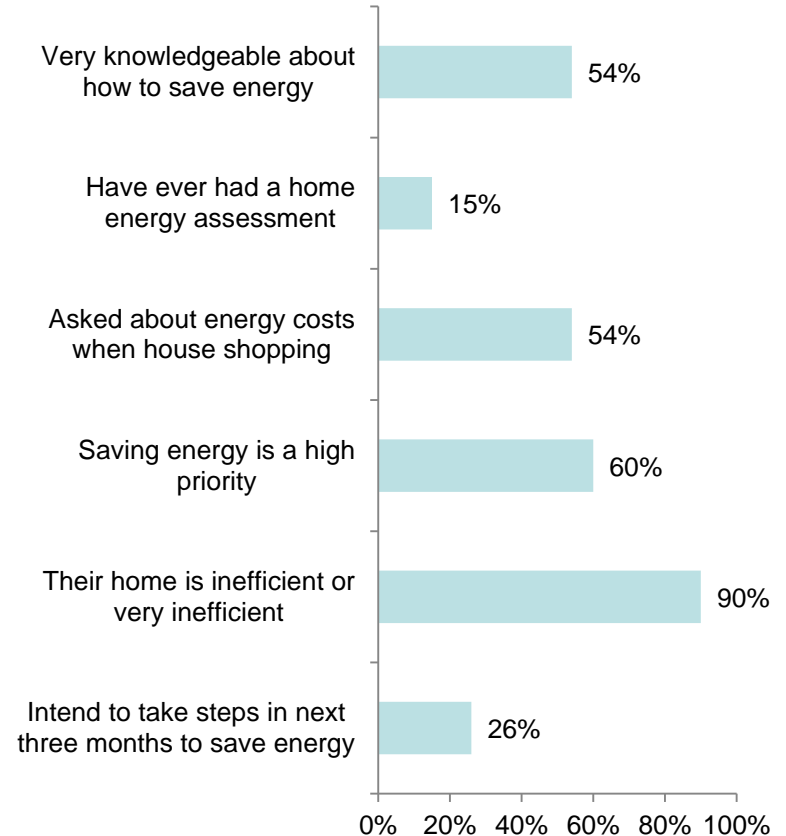




Target market and their attitudes

Target market characteristics

- Kitsap County, outside Bremerton and Bainbridge Isl.
- Single family
- Pre-1985 construction
- Owner-occupied
- Bankable income and assets



Project budget, timeline and objectives

- \$2.6 million budget
- Oct. 2010 – Sept. 2013, extended to March 2014
- Specific targets:
 - Achieve 2% retrofit rate (1,000 houses) in final year
 - Train 245 real estate professionals and home energy performance works and contractors

RePower Kitsap is multi-partnered



- **WSU Energy Program**
 - Conservation Services Group
 - Earth Advantage Institute
 - Advanced Energy
- Washington State Housing Finance Commission
- Puget Sound Cooperative Credit Union

- **Informal partners**

- Kitsap County
- Kitsap Credit Union
- Puget Sound Energy
- Cascade Natural Gas



Completed Home Energy Assessments w/
EPS

280

Total Goal: 685

Progress To Date: 40%



GET CASH FOR COMFORT



RE POWER KITSAP CREDIT UNION



CLICK TO FIND OUT WHAT
ENERGY-SAVING OPPORTUNITIES
YOU QUALIFY FOR!



2012 REPOWER INCENTIVE GUIDE

SECTION	NEW THIS YEAR	RESOURCES
PG. 1 HOW TO USE THIS GUIDE	STEP 1: FIND YOUR OPTION This guide is organized into three sections. Based on what energy efficiency building program or goal you want to pursue, you'll find the right program to explore. Each program includes information on what you can qualify for, how to apply, and what you need to know.	<ul style="list-style-type: none"> RePower Kitsap RePower Bainbridge RePower Bremerton Energy Efficiency Energy Star EnergySaver EnergySaver.org EnergySaver.com EnergySaver.net EnergySaver.gov EnergySaver.ca EnergySaver.uk EnergySaver.au EnergySaver.jp EnergySaver.in EnergySaver.br EnergySaver.cn EnergySaver.ru EnergySaver.ki EnergySaver.sg EnergySaver.hk EnergySaver.tw EnergySaver.th EnergySaver.ph EnergySaver.vn EnergySaver.la EnergySaver.mm EnergySaver.kh EnergySaver.mo EnergySaver.mt EnergySaver.gi EnergySaver.ad EnergySaver.ly EnergySaver.td EnergySaver.tg EnergySaver.bf EnergySaver.bi EnergySaver.gn EnergySaver.ml EnergySaver.nc EnergySaver.ni EnergySaver.pd EnergySaver.pr EnergySaver.pe EnergySaver.py EnergySaver.sv EnergySaver.sl EnergySaver.sr EnergySaver.tt EnergySaver.vg EnergySaver.vi EnergySaver.zj
PG. 2-4 ENERGY STAR	STEP 2: IDENTIFY YOUR SAVINGS	<ul style="list-style-type: none"> Energy Star Energy Star.org Energy Star.com Energy Star.net Energy Star.gov Energy Star.ca Energy Star.uk Energy Star.au Energy Star.jp Energy Star.in Energy Star.br Energy Star.cn Energy Star.ru Energy Star.ki Energy Star.sg Energy Star.hk Energy Star.tw Energy Star.th Energy Star.ph Energy Star.vn Energy Star.la Energy Star.mm Energy Star.kh Energy Star.mo Energy Star.mt Energy Star.gi Energy Star.ad Energy Star.ly Energy Star.td Energy Star.tg Energy Star.bf Energy Star.bi Energy Star.gn Energy Star.ml Energy Star.nc Energy Star.ni Energy Star.pd Energy Star.pr Energy Star.pe Energy Star.py Energy Star.sv Energy Star.sl Energy Star.sr Energy Star.tt Energy Star.vg Energy Star.vi Energy Star.zj



? **QUESTIONS? CLICK HERE TO CONTACT THE REPOWER HELP DESK AND SPEAK WITH AN ENERGY ADVISOR!**

Project challenges

- Economic downturn and stable energy prices
- Initial program design
 - Heavy on lending, light on cash
 - EPS sticker price
- Absence of a local champion
- Obtaining and reporting data on retrofits
- Coordination with 2nd BetterBuildings program

FINAL BOARDING CALL

APRIL 13, 2013

10am-4pm @ Woodward Middle School



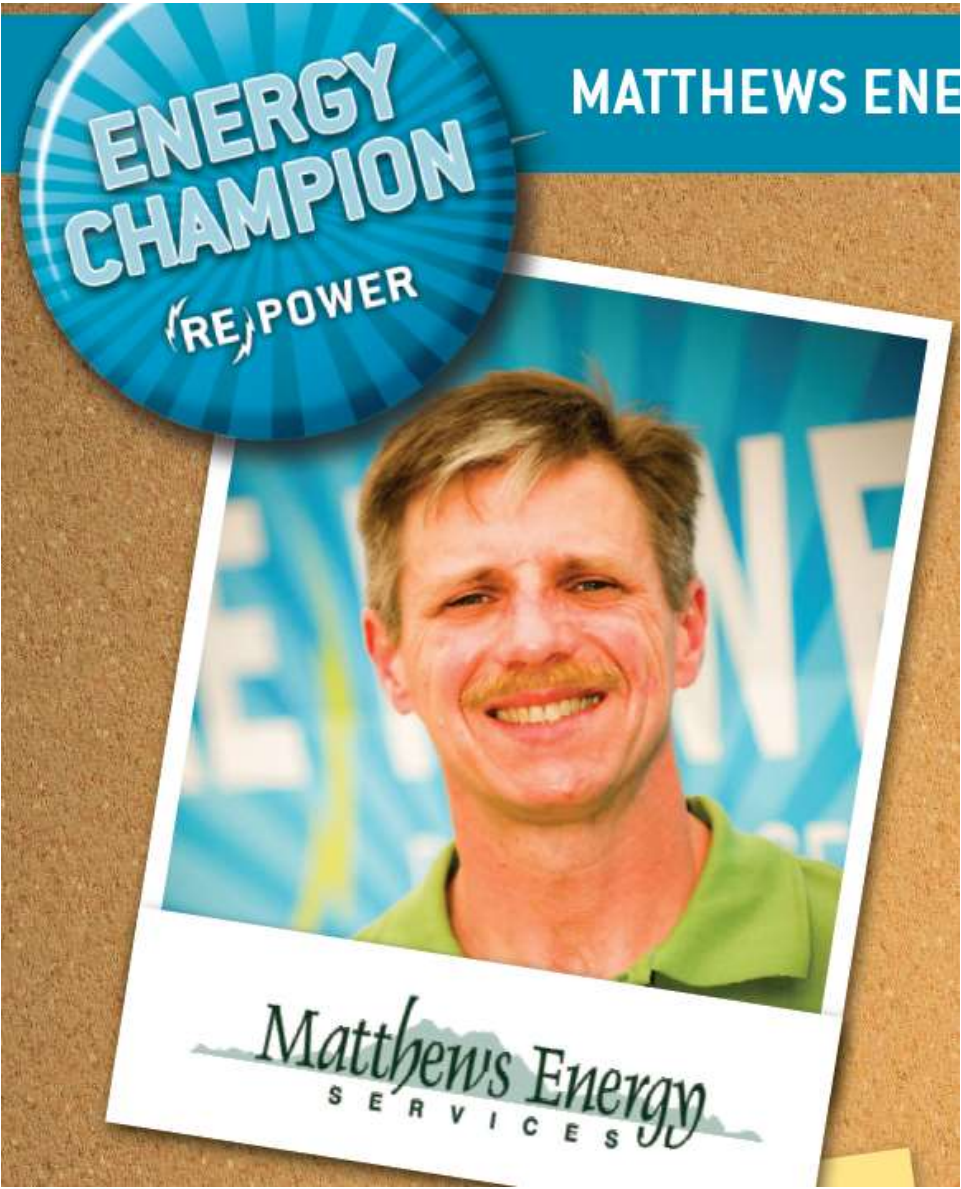
**LAST CHANCE EVENT FOR
THE POWER PROCRASTINATOR!**

CALL 877.741.4340 VISIT RePowerBainbridge.org JOIN us at [Facebook.com/RePowerBainbridge1](https://www.facebook.com/RePowerBainbridge1)



Strengthening Home Performance Businesses

- Work specifications, technical training
- Community college training center
- Business skills
 - Brown bags, mentoring
 - Targeted quality assurance
 - Web development, logos, ad plans



Emphasis on Air Sealing

- Driven by building science
- Specific example of the “deep retrofit” objective
- Developed cash incentive targeted at air sealing
- Provided training and equipment to trade allies
- Informal model for Puget Sound Energy

RE-ENERGIZE YOUR HOME

INVESTING IN ENERGY EFFICIENCY

GETTING THE MOST FOR YOUR MONEY IS RE-ENERGIZING

Sealing



Air leaks in the home and duct system can be the single largest cause of heat loss, in older homes especially. Sealing them properly can reduce draft and moisture problems while making your home more comfortable and energy efficient.

- Air sealing and duct sealing can save up to 30 percent on heating and cooling costs.
- Air sealing is more than just caulking and weatherstripping. Hire a professional to help you find hidden leaks. They can help you make sure you don't seal your home too tightly by keeping it properly ventilated with venting and fans with timers.
- Seal ducts, especially the ones that run outside the home or through your attic or crawl spaces.

Using EPS Data for Program Management

- Use data to identify common problem areas in houses
- Assessor errors identified with consistent checks on EPS data
- Prioritize follow-up contacts based on EPS results

PEEL HERE
↓

THE POWER
IS IN OUR HANDS.

 **RE POWER**
KITSAP

RePowerKitsap.org

 **RE POWER**
KITSAP



Department of Commerce
Innovation is in our nature.

DER

Massachusetts Department
of Energy Resources

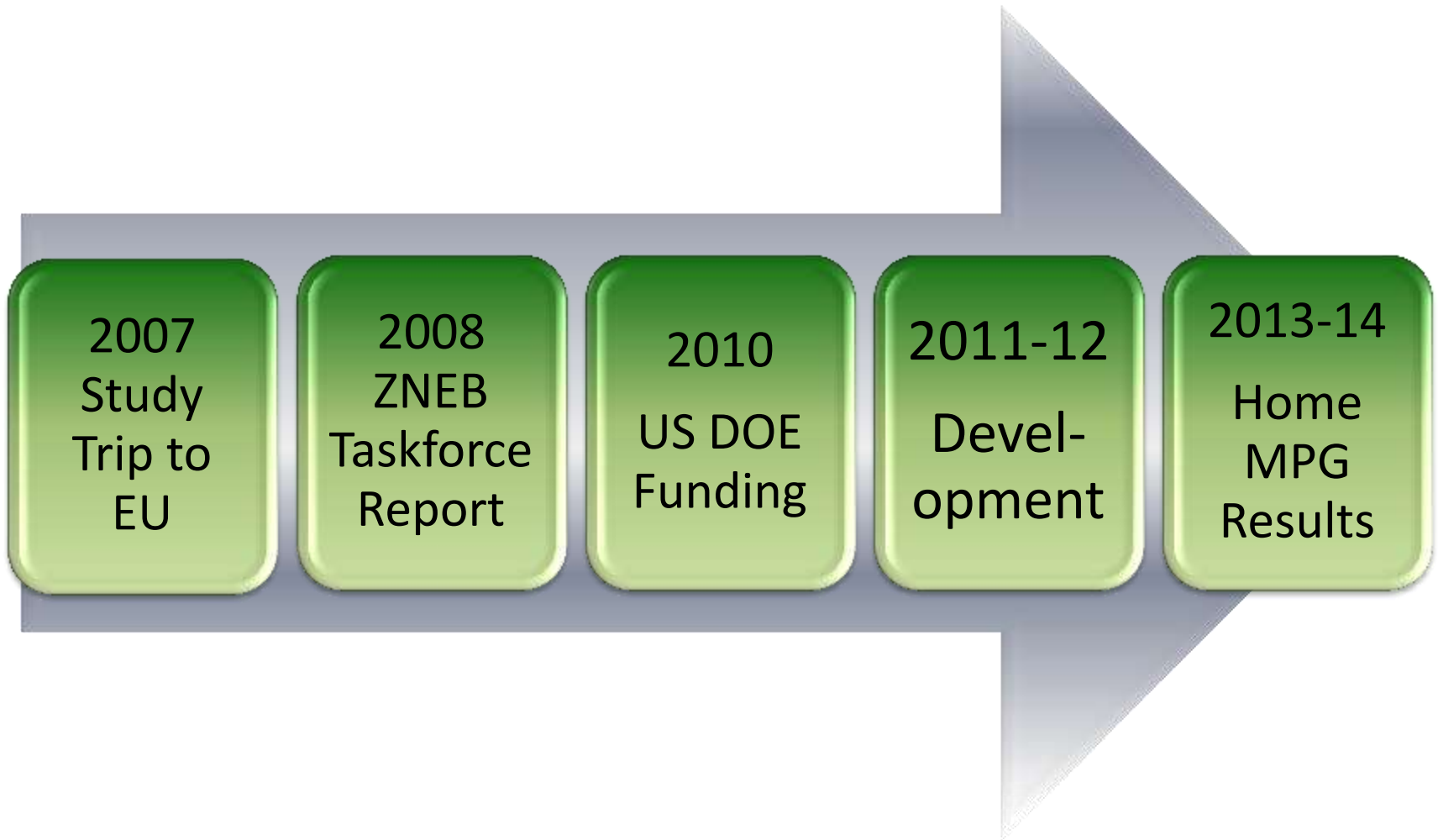


Residential Energy Rating in Massachusetts

Ian Finlayson

Deputy Director – Energy Efficiency Division

MA timeline on Residential Labeling



More than one metric

EPA DOT Fuel Economy and Environment Gasoline Vehicle

Fuel Economy
26 MPG combined city/hwy
22 MPG city
32 MPG highway
3.8 gallons per 100 miles

Small SUVs range from 16 to 32 MPG. The best vehicle rates 99 MPGe.

You save \$1,850 in fuel costs over 5 years compared to the average new vehicle.

Annual fuel cost \$2,150

Fuel Economy & Greenhouse Gas Rating (tailpipe only)
7 (on a scale of 1 to 10, Best)

Smog Rating (tailpipe only)
6 (on a scale of 1 to 10, Best)

This vehicle emits 347 grams CO₂ per mile. The best emits 0 grams per mile (tailpipe only). Producing and distributing fuel also creates emissions; learn more at fuel economy.gov.

Actual results will vary for many reasons, including driving conditions and how you drive and maintain your vehicle. The average new vehicle gets 22 MPG and costs \$12,600 to fuel over 5 years. Cost estimates are based on 15,000 miles per year at \$3.70 per gallon. MPGe is miles per gasoline gallon equivalent. Vehicle emissions are a significant cause of climate change and smog.

fuel economy.gov
Calculate personalized estimates and compare vehicles

Smartphone QR Code

1 2 3 4 5 6 7 8 9 10 11 12

ENERGY PERFORMANCE SCORE

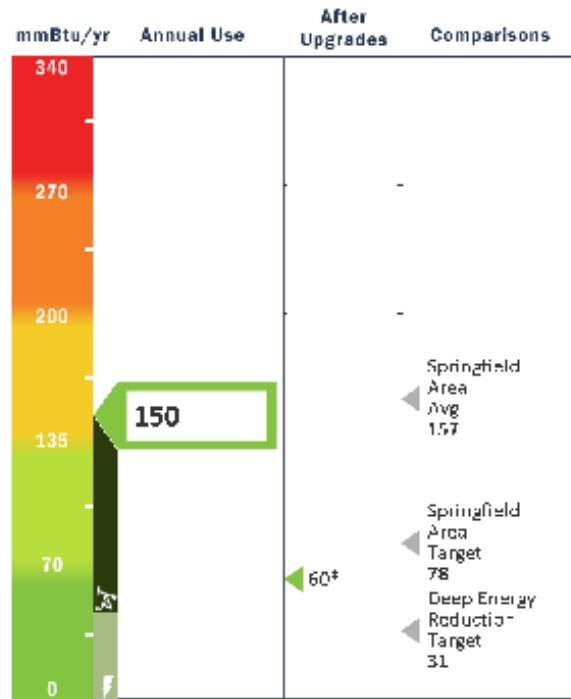


Address: 10-30 Oct
Bend, MA 01101

Reference Number: 250000158

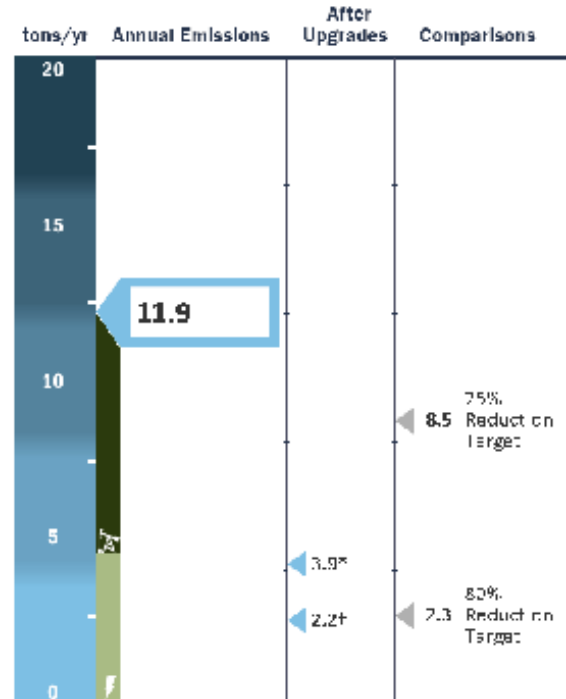
Energy Score: 150 mmBtu/yr	\$4,608	Carbon Score: 11.9 tons/yr	
Electric: 13,700 kWh/yr	\$1,918	Electric: 4.5 tons/yr	
Natural Gas: 0 therms/yr	\$0	Natural Gas: 0.0 tons/yr	
Oil: 730 gal/yr	\$2,690	Oil: 7.4 tons/yr	

Energy Score



*See Recommended Upgrades

Carbon Score



*See Recommended Upgrades

†With energy from renewable sources

This score measures the estimated total energy use (electricity, natural gas, propane, heating oil) of this home for one year. The lower the score, the less energy required for normal use. Actual consumption and costs may vary.

Measured in million Btus per year (mmBtu/yr).

This score measures the total carbon emissions based on the annual amounts, types, and sources of fuels used in this home. The lower the score, the less carbon is released into the atmosphere to power this home.

Measured in metric tons per year (tons/yr).

Bedrooms: 2 **Assessment Date:** 10/30/2011
Year Built: 1999 **Energy Specialist:** Covelo Test, Brandon



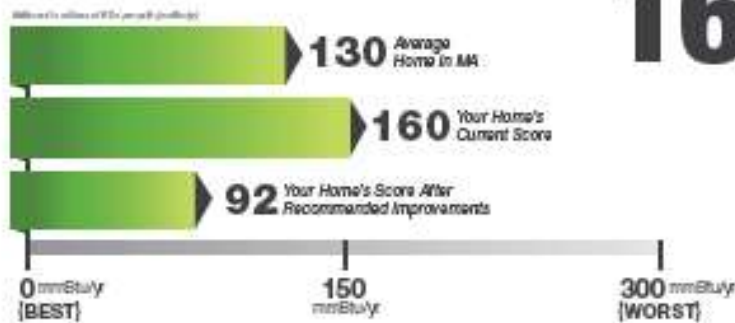


YOUR HOME'S ENERGY PERFORMANCE SCORE

Home MPG, a program within Mass Save®, provides you with your home's "miles per gallon" energy performance rating, called an "energy performance score" or EPS. By helping you better understand your home's energy use, Home MPG helps you make smart decisions about implementing improvements that make your home more energy efficient and reduce your energy costs.

Your Home's ENERGY PERFORMANCE SCORE

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



160

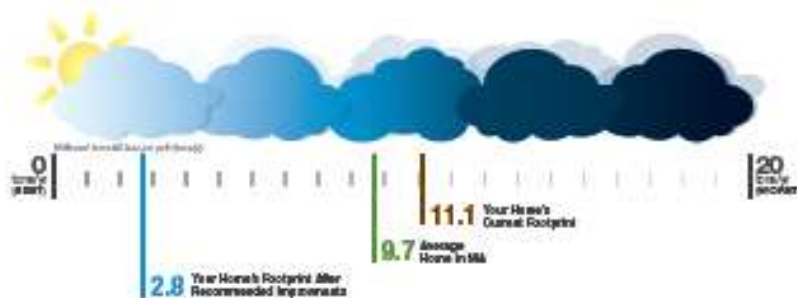
PREPARED FOR
<Customer Name>
<Customer Address>
<City>, <State> <Zip>
Ref #: <Site ID>

Year Built: <XXXX>
Sq Footage: <XXXX>
Bedrooms: <X>
Primary Heating Fuel:
<XXXX>

EPS Report Date:
<XX/XX/XXXX>
Energy Specialist:
<Energy Specialist Name>

Your Home's 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.



11.1

Estimated average carbon footprint (tons/yr): Electric <XX>, Natural Gas <XX>

DOLLARS & SENSE

Current Estimated Energy Costs: **\$2000** Per Year



ESTIMATED ENERGY SAVINGS

\$1150

Per Year

Based on implementing all of the recommended energy efficient improvements



YOUR HOME'S ENERGY PERFORMANCE SCORE

Home MPG, a program within Mass Save®, provides you with your home's "miles per gallon" energy performance rating, called an "energy performance score" or EPS. By helping you better understand your home's energy use, Home MPG helps you make smart decisions about implementing improvements that make your home more energy efficient and reduce your energy costs.

PREPARED FOR

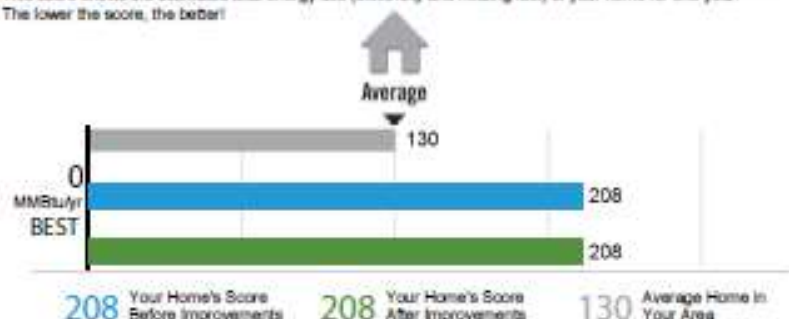
123 Test Street
Testville, NY 14850
Ref #: GSN637

Year Built: 1975
Sq Footage: 1800
Bedrooms: 3
Primary Heating Fuel: Electricity

Assessment Date: 9/12/2012
Energy Specialist: Performance Manager

208 Your Home's ENERGY PERFORMANCE SCORE

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



Estimated percentage of energy use by fuel type: Electric: 86% , Natural Gas: 14%
Estimated percentage of energy use by end use: Heating 80%, Cooling 5%, Hot Water 25%,
Appliances and Lighting 10%

THE BOTTOM LINE

PER YEAR

\$0

ESTIMATED ENERGY SAVINGS
Based on implementing all of the recommended energy efficiency improvements

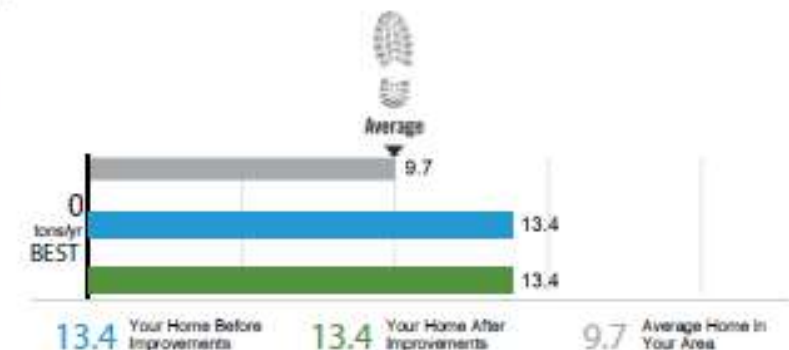
PER YEAR

\$9989

CURRENT ESTIMATED ENERGY COSTS

13.4 Your Home's 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.



For more information on Home MPG or to create an online account to manage your home's information, visit masssave.energy-performance-score.com

Actual energy costs may vary and are based on many factors such as occupant behavior, weather and utility rates. Please see reverse for more on the EPS calculation. Projections for savings and energy savings are estimates based on implementing all of the recommended energy efficiency improvements.



Western Massachusetts Electric

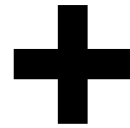
A National Grid Company



mass save
Save through smart efficiency

MA Home MPG 'EPS' Pilot

- 8 Towns and Cities in western Massachusetts
 - Belchertown, East Longmeadow, Hampden, Longmeadow, Monson, Palmer, Springfield and Wilbraham
- 3 Utilities: National Grid, WMECO (NU), Columbia Gas
- 2 Lead Vendors: CSG and Honeywell
- 16,000 Thermal images: Sagewell
- 150+ Local outreach events: Pioneer Valley Planning Commission and CET
- 3 Approved EPS Scorecards – EAI, CSG & Honeywell
- 0 % Financing from Local Banks (MA HEAT loan)



Additions to the Mass Save:

- **Scorecard:** Before and after Home MPG scorecard
- **Online info:** Scorecard + report + loan + IR image
- **Bonus rebates:** for insulation & HVAC equipment
- **Local outreach and assistance:** marketing and concierge if considering a retrofit



[For Homeowners](#)

[For Professionals](#)

[About](#)

[FAQ](#)

[Contact](#)



Home MPG, an initiative within Mass Save®, provides you with your home's "miles per gallon" energy performance rating to help you understand your home's energy use and make smart decisions about energy efficiency improvements. In addition to the no-cost energy assessment and financial incentives provided by Mass Save, Home MPG provides:

- A home "energy performance score" (EPS) - similar to a miles-per-gallon (MPG) rating for cars - that indicates a home's energy use and cost to operate irrespective of occupant behavior.
- A convenient on-line system that allows homeowners to view their EPS and recommended improvements.

Home MPG is funded by a grant from the Department of Energy and directed by the Massachusetts Department of Energy Resources

How it Works



Thermal Imaging

Access thermal images (for some homeowners) that highlight energy saving opportunities in the home

[More »](#)



Assess Your Home

Schedule a no-cost energy assessment to get an Energy Performance Score (EPS) and recommendations to make your home more energy efficient and comfortable. Rebates, incentives, and financing are available.

[More »](#)



Incentives & Financing

Home energy efficiency improvements can save money over time but may have initial costs. To help with these initial costs, rebates, incentives, and 0% financing are available.

[More »](#)



Improve Your Home

Qualified contractors are available to weatherize your home and improve its energy efficiency.

[More »](#)

Log in to My Account

Username

Password [Forgot Password?](#)

Remember me

[Log In](#)

Eligibility

This program covers all homes in **Belchertown, East Longmeadow, Hampden, Longmeadow, Monson, Palmer, Springfield, and Wilbraham** that are eligible for home energy assessments sponsored by the Mass Save program.

Don't Have a Home MPG Account?
[Sign up now!](#)

Not eligible? [Take me back to MassSave »](#)

ReBuild Western Massachusetts is your source for information on tornado relief. [Take me to ReBuild](#)


Visualizing home energy improvements

Your independent energy efficiency advocate since 2008 [SIGN UP](#) [LOG IN](#)

sagewellSM HOW WE HELP YOUR HOME TAKE ACTION ABOUT BLOG

Thermal images of your home

See the heat
Start the savings



- Please enter your home address in the box below and click "Find Savings Now" to view your thermal image heat loss analysis.
- If you live in a single family home in one of the participating communities, you are eligible to participate in Home MPG which is an enhancement to the standard Mass Save home energy services program.
- Mass Save and the Home MPG program offer generous expanded rebates and incentives to homeowners and the opportunity to get an Energy Performance Score for your home.
- Enter your home address to view your thermal image report and request a free assessment today.

- 1 Request**
Enter your address below to request a no-cost in-home energy assessment and Sagewell thermal image report.
- 2 Receive**
Get a utility-sponsored in-home energy assessment and Sagewell thermal image report.
- 3 Improve**
Make improvements to begin enjoying savings and a healthier home today!

Find your home or building

Enter your invitation code or enter your street address, city and state [FIND SAVINGS NOW](#)

[All Homes: 131,704,730](#) [Highly Inefficient: 13,170,473](#) [Inefficient: 26,340,946](#) [Somewhat Inefficient: 26,340,946](#) [Efficient: 65,852,365](#)

Home Miles per Gallon

Homeowners who live in 1-4 family buildings in Springfield, Belchertown, Palmer, Monson, Longmeadow, East Longmeadow, Hampden, or Wilbraham are eligible to participate in Home MPG. The program offers no-cost energy assessments, enhanced incentives and 0% financing, thermal images (if available), and an energy performance score for your home.

Thermal images are an additional tool to help you identify potential opportunities to improve the energy efficiency of your home.

Sagewell's research and programs

Sagewell is an independent energy efficiency analysis company. We are not a builder, supplier, manufacturer or installer of energy efficiency materials. We focus our research on finding those homes that can save the most energy. We then connect the home owners with programs and companies that make the building improvements.

We bridge the gap between analysis and action, helping home owners realize the energy savings potential of their homes.

Incentives for deeper savings

Home MPG 'bonus' incentives:

- Insulation incentive up to \$5k from \$2k
- Only for 'best in class' heating equipment
- Support 'fuel switch' from oil & propane to heat pumps or biomass

Local Outreach

Coordinated by Pioneer Valley Planning Commission

- Neighborhood outreach – 158 events
- 593 customer leads from local outreach
- Includes ‘concierge’ service for home-owners

HomeMPG Outreach Tracking Overview www.homempg.net MEDIA OUTREACH						
	Website	TV Ads/coverage	Newspaper Ads/coverage	Radio Ads/coverage	Direct Phone Calls	Social
Oct 2012	Update HomeMPG.net weekly to include updates on program and relevant events associated with it. Include retrofit numbers and overall energy savings achieved. Track # of visits.	Work with municipal contacts and homeowners who have received HEAs and implemented retrofit work or replacement appliances to submit ‘testimonials’ via letters to the editors and/or interviews in newspapers, tv, radio, blogs, etc.	Purchase ad space in community newspaper.			
Nov 2012		Deliver PowerPoint Presentation to air on Cable Access TV. Collaborate with MA DOER on major media event with the Commissioner of the Executive Office of Environmental Affairs to secure broad visibility for program—highlighting INCREASED FINANCIAL incentives for a pilot communities.	Develop article in newsprint format for Chambers of Commerce and advocacy organizations. Up up-ed article for newsprint.			
Dec 2012		Follow up emails and phone calls to the community to see if ads were seen and effective.	Continue developing ads for newspaper. Make minor revisions necessary.			
Jan 2013						
Feb 2013		follow up ad				
Mar 2013				Continue to update and submit articles for op-ed pieces.		
April 2013			Follow up emails and phone calls to the community to see if ads were seen and effective.	Continue developing ads for newspaper.		



0% interest HEAT loans



[For Homeowners](#)

[For Professionals](#)

[About](#)

[FAQ](#)

[Contact](#)

[« Back to home page](#)

Explore Financing and Incentives

To help with the upfront cost of energy efficiency home improvements, Mass Save and Home MPG offer various rebates and incentives. Available rebates and incentives may include:

- 75% up to \$2000 toward the installation of approved insulation improvements
- No-cost targeted air sealing
- Generous rebates on qualifying energy-efficient heating and hot water equipment
- The opportunity to apply for 0% financing for eligible measures through the HEAT loan program. The following local banks are HEAT loan providers:
 - Country Bank
 - Hampden Bank
 - Monson Savings Bank

For more information about Mass Save rebates and incentives, [click here](#).

For required HEAT loan forms and other HEAT loan providers, [click here](#).



Monson Savings

Copyright 2012 Covelo Technology, LLC

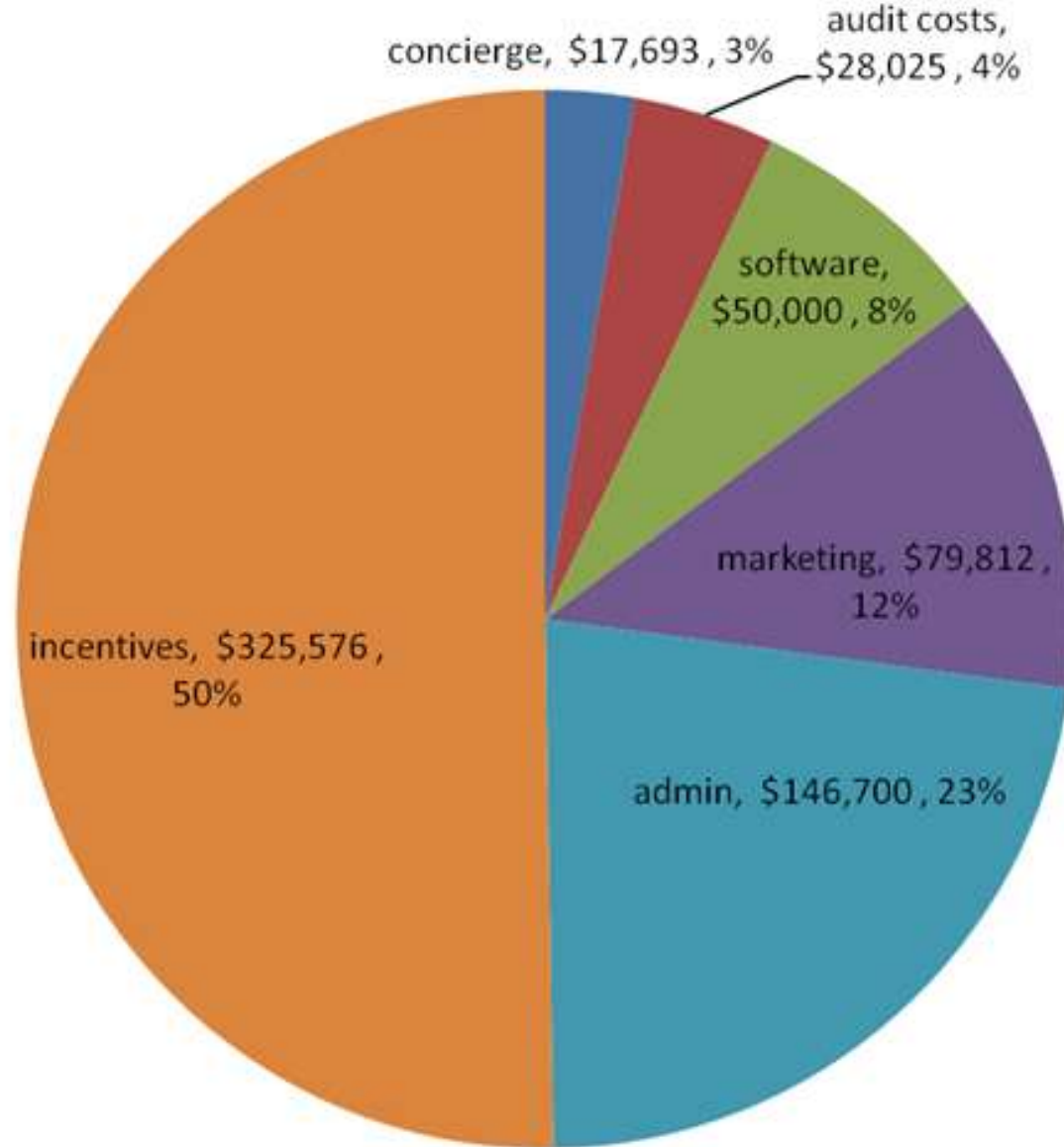


Results (thru Dec 2013)

- 3036 Scorecards delivered
- 1450 retrofit projects initiated
- 1281 insulation upgrades
- Audits demand and Conversion rate increased

HomeMPG Lead Vendors

through 12/2013





Next Steps

- Realtor and Home Appraiser Trainings
- Low Income mini-pilot with Heat Pumps
- Springfield pilot concludes March 31st
- Pilot with City of Worcester and potentially elsewhere in the state.



2014 Energy Policy Outlook Conference

earthadvantage.

Earth Advantage is a Portland, Oregon based nonprofit whose mission is to accelerate the creation of better buildings. We provide knowledge to building professionals and information to consumers through certification, research, education, and product development.





Earth Advantage[®] Broker

A bright, airy room with large white-framed windows and doors. Three people, two women and one man, are standing in the center, engaged in conversation. The room has a wooden floor and a white ceiling. Sunlight streams in from the windows, creating shadows on the floor. The overall atmosphere is professional and modern.

343 agents trained in 2 day classes

Earth Advantage[®] Broker



Accredited Green Appraiser



330 trained in 2 day classes

Accredited Green Appraiser



Building Science Toolkit for Home Inspectors

Contact Information



Chris Wagner, NASEO: cwagner@naseo.org

Ian Finlayson, Massachusetts: ian.finlayson@state.ma.us

Al Christopher, Virginia: al.christopher@dmme.virginia.gov

Glenn Blackmon, Washington: glenn.blackmon@commerce.wa.gov

Elizabeth Grimes, Alabama: elizabeth.grimes@adeca.alabama.gov

David Heslam, Earth Advantage: dheslam@earthadvantage.or