

# Balancing Market Share & Market Transformation in Times of Change



Chris Gordon  
Residential New Construction  
Program Manager

April 19, 2012

# Agenda

1. Background on Vermont building environment
2. Market changes and impacts on program design
3. Outreach and marketing efforts
4. Rebuilding after Tropical Storm Irene
5. Program results and plans moving forward
6. Lessons learned

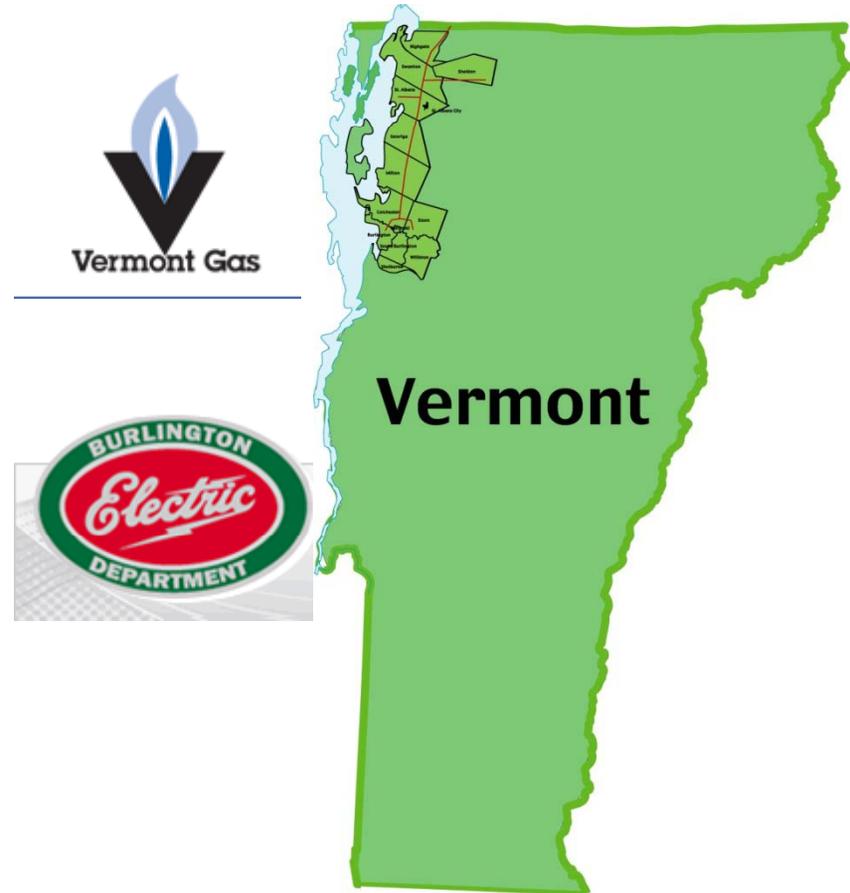
# Efficiency Vermont

- Established in 2000 as the country's first statewide Energy Efficiency Utility
- Operated through non-profit Vermont Energy Investment Corporation under appointment from the State of Vermont
- Funded through an Energy Efficiency Charge on all electric bills (approx. 1 cent/kWh)
- In 2011, efficiency led, in part, to a 2% decrease in the state's overall annual electrical demand

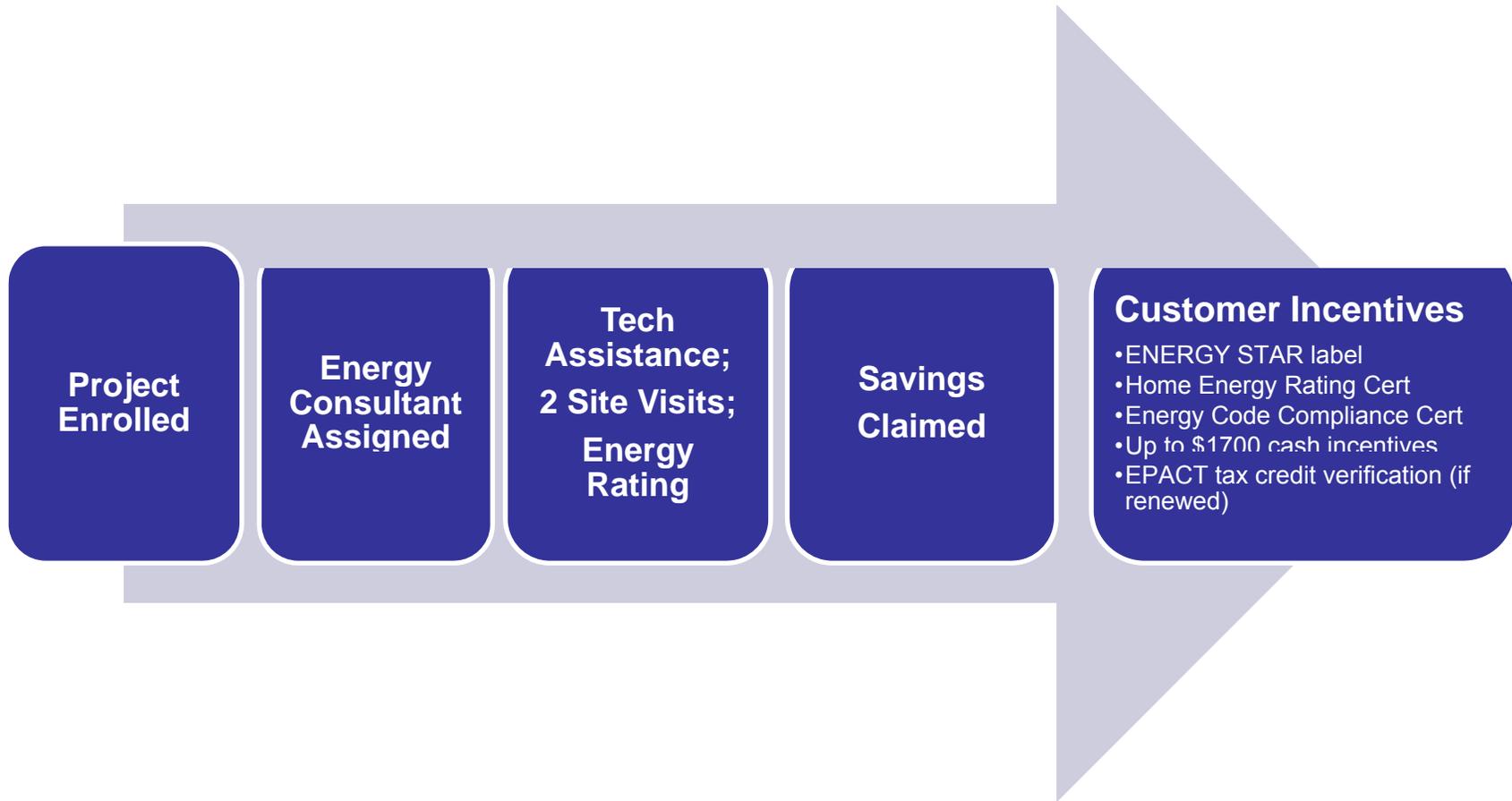
# Vermont ENERGY STAR® Homes

## Statewide Reach

- Provide technical assistance, certification, and incentives throughout Vermont
- Partnership in Vermont Gas Systems territory
- Burlington Electric operates separately but in cooperation



# Vermont ENERGY STAR Homes



# Vermont Building Market

- Approximately 1,000 one to four unit building permits issued annually
- Very few large developments
- Most homes outside Vermont Gas territory heat with propane/oil boilers and wood
- Approximately 25% of participating homes have AC, but percentage is increasing





# 2011: New Code + New ENERGY STAR

How do we prepare the residential construction market for higher standards in both Energy Code and ENERGY STAR?

- Stakeholder engagement:
  - Market strategy team, key partners, builder focus groups & market research
- What we heard:
  - Program value lies equally across technical assistance, 3rd party energy rating, and ENERGY STAR label
  - Continue providing service free of charge – adjust incentives if necessary
  - Positive reception to a “Two Tier” approach

# 2011: New Code + New ENERGY STAR

Two-tier approach to “above code”:

- BASE TIER: Energy Code Plus
- HIGHER TIER: Vermont ENERGY STAR Homes

Efficiency Vermont Residential New Construction Services

-  VERMONT ENERGY STAR® HOMES
-  ENERGY CODE PLUS

# Program Goals

1. Promote cost-effective energy efficiency measures that result in homes that are affordable to operate, comfortable to live in, and durable over time
2. Train builders on new Code and ENERGY STAR V.3 to position them for program success
3. Work with enrollees to consider options for deeper savings during the planning stages of new projects
4. Transform the market by working with building professionals to create highly efficient new housing stock with a lower average HERS index
5. Collaborate with building and real estate partners to advance education and outreach efforts
6. Increase market share

# Base Tier: Energy Code Plus

## Minimum Requirements

1. Meet VT-Residential Building Energy Standards (VT-RBES = Energy Code) via HERS Compliance Path (HERS 75)
2. Achieve Energy Code prescriptive insulation levels installed to Grade II standard
3. Meet ventilation and combustion safety requirements
4. Pass Pre-Drywall Inspection (all sections of Thermal Enclosure Checklist but Section 4: Reduced Thermal Bridging)

# Base Tier: Energy Code Plus

## Minimum Requirements

5. Air leakage:  $\leq 4$  ACH50 (air changes/hour at 50 pascals)
6. All heating and cooling ducts must be located within thermal boundary of the home
7. ENERGY STAR or equivalent heating & cooling system (if installed)
8. All major installed appliances must be ENERGY STAR
9. ENERGY STAR lighting in 50% of fixtures

# Higher Tier: Vermont ENERGY STAR Homes

## Minimum Requirements

Meet or exceed all Energy Code Plus requirements, plus:

- Meet all ENERGY STAR V.3 requirements including:
  - Earns a Home Energy Rating (HERS) that meets or exceeds the ENERGY STAR HERS Target Index
  - Meet all ENERGY STAR checklist requirements
- Air leakage:  $\leq 3$  ACH50 (air changes/hour at 50 pascals);
- ENERGY STAR lighting in 80% of fixtures



# Customer Incentives

## Energy Code Plus

Energy rating and technical assistance	
Home Energy Rating Certificate	
Energy Code compliance documentation	
EPACT Tax Credit documentation	When applicable (not currently available)
\$200 Higher Tier Appliance Bonus	For installation of at least two CEE Tier 2/3 appliances
LED and Pool Pump Incentives	Via existing Efficient Products program
\$200 Wastewater Heat Recovery	Vermont Gas territory only
\$500 HRV/ERV incentive, \$300 Participation Incentive	Washington Electric Coop territory only

## Vermont ENERGY STAR Homes



<i>All of Energy Code Plus, and...</i>	
ENERGY STAR label	
HERS Index incentive, up to \$1,500	(\$75 per point below 60 for homes $\leq$ 3,000 sq ft; below 55 for homes $>$ 3,000 sq ft. )

# Outreach and Marketing Efforts

- Sponsored seven ENERGY STAR V. 3 Trainings plus presentations at Home Builders & Remodelers Association events
- Program Updates through Efficiency Vermont “Builder News” newsletter and other area building publications

The image shows a screenshot of the Efficiency Vermont "Builder News" newsletter. The header features the Efficiency Vermont logo and the title "Builder News" in large white letters on a blue background. Below the title, the website "www.afficiencyvermont.com" and the issue "FALL 2010" are listed. The main content includes an article titled "Changes are on the way" which discusses updates to the Vermont Residential Building Energy Standard (VT-RBES) and the implementation of ENERGY STAR Homes Version 3.0. It mentions that new criteria will go into effect in 2011, requiring improved energy efficiency, durability, and comfort. A table of contents is provided on the right side of the page, listing sections such as "Changes to National Energy Star Homes Requirements", "Vermont Residential Building Energy Standards Update", "Case Study", and "Calendar Listing". The footer includes the Efficiency Vermont logo and a small Vermont State logo.

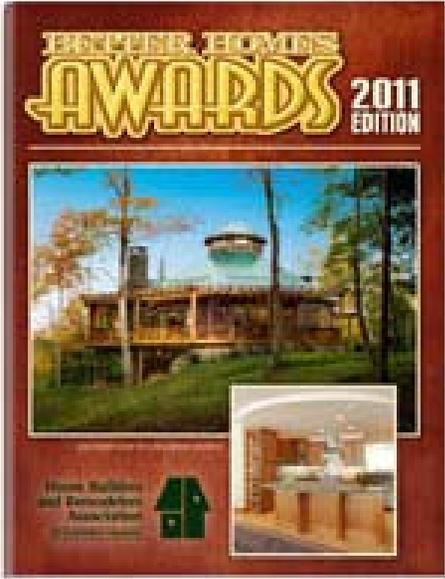


# Outreach and Marketing Efforts

ACCA QA Overview Sessions

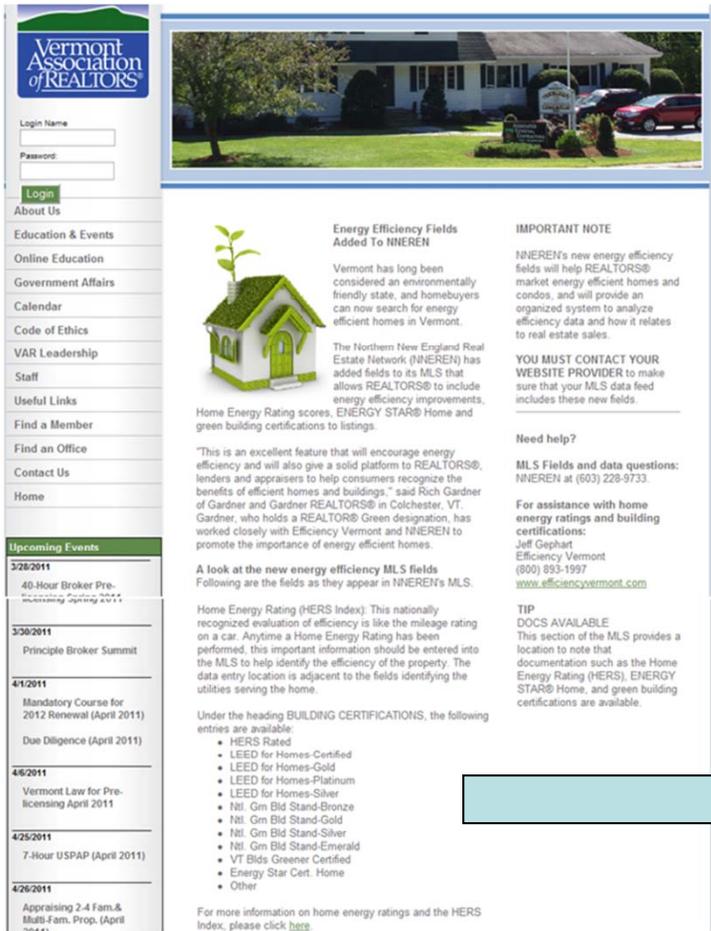


Utilize ENERGY STAR logo for homes entering HBRA “Better Homes Awards” event



# Outreach and Marketing Efforts

Educating appraisers and realtors through Vermont Green Home Alliance



**Vermont Association of REALTORS**

Login Name:   
 Password:   
 Login

About Us  
 Education & Events  
 Online Education  
 Government Affairs  
 Calendar  
 Code of Ethics  
 VAR Leadership  
 Staff  
 Useful Links  
 Find a Member  
 Find an Office  
 Contact Us  
 Home

**Upcoming Events**

**3/28/2011**  
 40-Hour Broker Pre-licensing Course

**3/30/2011**  
 Principle Broker Summit

**4/1/2011**  
 Mandatory Course for 2012 Renewal (April 2011)  
 Due Diligence (April 2011)

**4/6/2011**  
 Vermont Law for Pre-licensing April 2011

**4/25/2011**  
 7-Hour USPAP (April 2011)

**4/26/2011**  
 Appraising 2-4 Fam. & Multi-Fam. Prop. (April 2011)

**Energy Efficiency Fields Added To NNEREN**

Vermont has long been considered an environmentally friendly state, and homebuyers can now search for energy efficient homes in Vermont.

The Northern New England Real Estate Network (NNEREN) has added fields to its MLS that allows REALTORS® to include energy efficiency improvements.

Home Energy Rating scores, ENERGY STAR® Home and green building certifications to listings.

"This is an excellent feature that will encourage energy efficiency and will also give a solid platform to REALTORS®, lenders and appraisers to help consumers recognize the benefits of efficient homes and buildings," said Rich Gardner of Gardner and Gardner REALTORS® in Colchester, VT. Gardner, who holds a REALTOR® Green designation, has worked closely with Efficiency Vermont and NNEREN to promote the importance of energy efficient homes.

**A look at the new energy efficiency MLS fields**  
 Following are the fields as they appear in NNEREN's MLS.

Home Energy Rating (HERS Index): This nationally recognized evaluation of efficiency is like the mileage rating on a car. Anytime a Home Energy Rating has been performed, this important information should be entered into the MLS to help identify the efficiency of the property. The data entry location is adjacent to the fields identifying the utilities serving the home.

Under the heading BUILDING CERTIFICATIONS, the following entries are available:

- HERS Rated
- LEED for Homes-Certified
- LEED for Homes-Gold
- LEED for Homes-Platinum
- LEED for Homes-Silver
- Ntl. Gm Bld Stand-Bronze
- Ntl. Gm Bld Stand-Gold
- Ntl. Gm Bld Stand-Silver
- Ntl. Gm Bld Stand-Emerald
- VT Blds Greener Certified
- Energy Star Cert. Home
- Other

For more information on home energy ratings and the HERS Index, please click [here](#).

**IMPORTANT NOTE**

NNEREN's new energy efficiency fields will help REALTORS® market energy efficient homes and condos, and will provide an organized system to analyze efficiency data and how it relates to real estate sales.

**YOU MUST CONTACT YOUR WEBSITE PROVIDER** to make sure that your MLS data feed includes these new fields.

**Need help?**

MLS Fields and data questions: NNEREN at (603) 226-9733.

**For assistance with home energy ratings and building certifications:**  
 Jeff Gephart  
 Efficiency Vermont  
 (800) 893-1997  
[www.encyciencyvermont.com](http://www.encyciencyvermont.com)

**TIP**  
 DOCS AVAILABLE  
 This section of the MLS provides a location to note that documentation such as the Home Energy Rating (HERS), ENERGY STAR® Home, and green building certifications are available.

Under the heading BUILDING CERTIFICATIONS, the following entries are available:

- HERS Rated
- LEED for Homes-Certified
- LEED for Homes-Gold
- LEED for Homes-Platinum
- LEED for Homes-Silver
- Ntl. Gm Bld Stand-Bronze
- Ntl. Gm Bld Stand-Gold
- Ntl. Gm Bld Stand-Silver
- Ntl. Gm Bld Stand-Emerald
- VT Blds Greener Certified
- Energy Star Cert. Home
- Other

For more information on home energy ratings and the HERS Index, please click [here](#).

# Tropical Storm Irene Rebuild



Photo credit: Rutland Herald

# Tropical Storm Irene Rebuild



Rt 4, Killington, VT



Photo credit: Burlington Free Press

# Tropical Storm Irene Rebuild

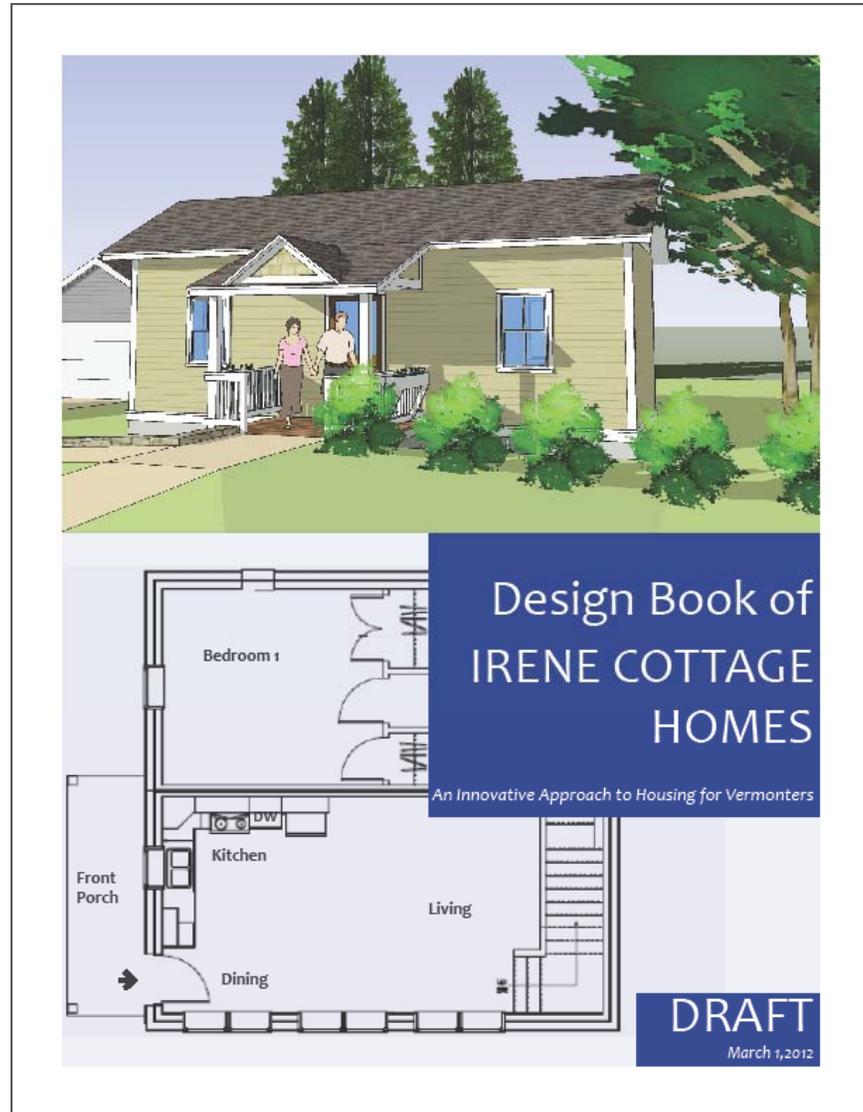


Flooded home in Waterbury, VT

Photo credit: Burlington Free Press



# Tropical Storm Irene Rebuild

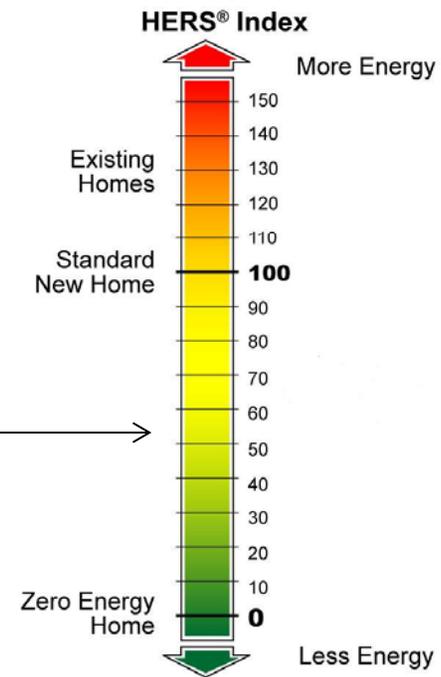


# Key Program Statistics

	2008	2009	2010	2011
Number of Builder Partners	277	319	355	371
% ENERGY STAR Market Share	32	36	29	31
Avg. HERS Index	60	58	58	56

# Trends in 2012

- Many homes with ducted systems tending to go Energy Code Plus (this may change with increase in credentialed HVAC Contractors)
- Enrollments
  - ENERGY STAR 78%
  - Code Plus 22%
- Avg. HERS Index through March: 53

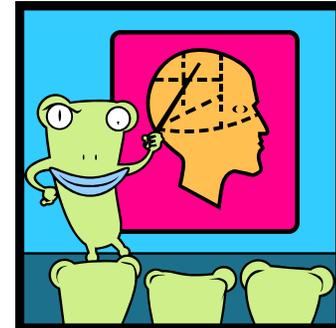


# Moving Forward

- Under the Plan, Do, Check, Act philosophy—surveying energy raters, builders, and new homeowners about current program structure
- VT State Energy Plan calling for net zero energy residential new construction by 2030
- Looking into “Low Load Home” tier at or near Passive House level of efficiency
  - [First Habitat for Humanity Passive House](#)
  - [Charlotte, VT](#)
- Engage community energy committees on how to promote above code construction in their towns



# Lessons Learned



- Builder buy-in is critical in program design
- Design programs such that switching between tiers is achievable
- Find the balance point for pushing market transformation while maintaining market share and savings potential
- Trainings for builders and energy raters are key to program
- Builders can make a great sales team for your program

Chris Gordon  
Residential New Construction Manager  
EfficiencyVermont

[cgordon@veic.org](mailto:cgordon@veic.org)

888-921-5990 ext. 7683

[www.encyvermont.com](http://www.encyvermont.com)