



ZERO ENERGY NOW! **PROGRAM**

VECAN Conference – December 5, 2015

Vermont's Current Energy Market

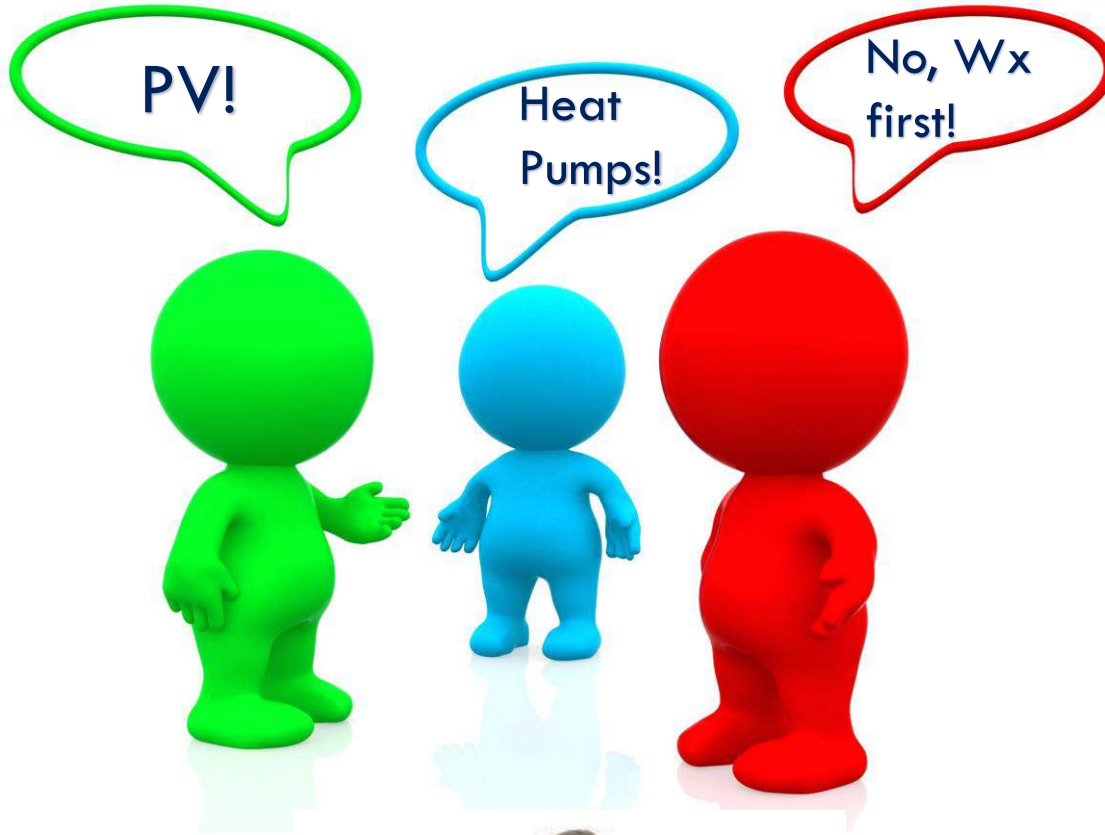
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- Experienced and committed Home Performance contractors (BPPA)
- Robust PV marketplace (REV)
- Cold Climate Heat Pumps and growing markets
- Financing
 - ▣ Heat Saver Loan (0% to 4.99%, \$35k, up to 15 years)
 - ▣ NeighborWorks Loan
 - ▣ VSECU V-Green Loans
- Efficiency Vermont infrastructure



Customer Confusion

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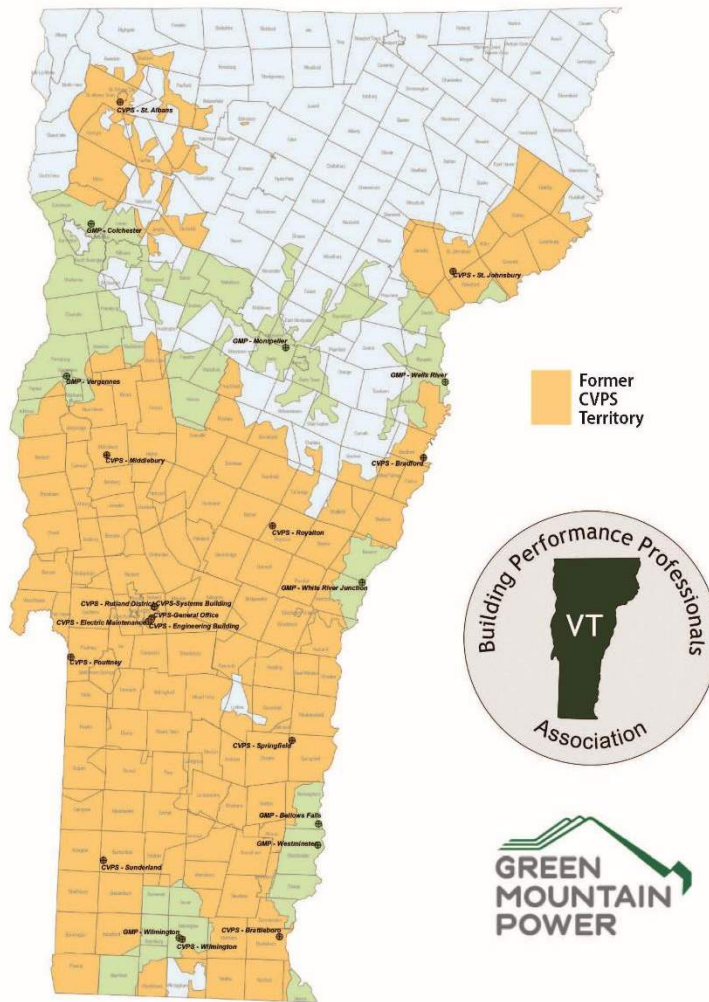
The Solution – *Zero Energy Now!* Program

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- Comprehensive approach:
 - ▣ Energy efficiency – reduce heating loads
 - ▣ Heat pumps or biomass – fossil fuels reduction
 - ▣ Solar PV – on-site energy production
- One “general contractor”
 - ▣ Customer analysis and presentation of RE & EE options
 - ▣ Coordinated subcontractors
- Financing to provide “positive cash flow”
- Offers “zero energy” approach to get off fossil fuels



If you are a former CVPS customer you could get up to \$5,000 in extra incentives!



Zero Energy Now!

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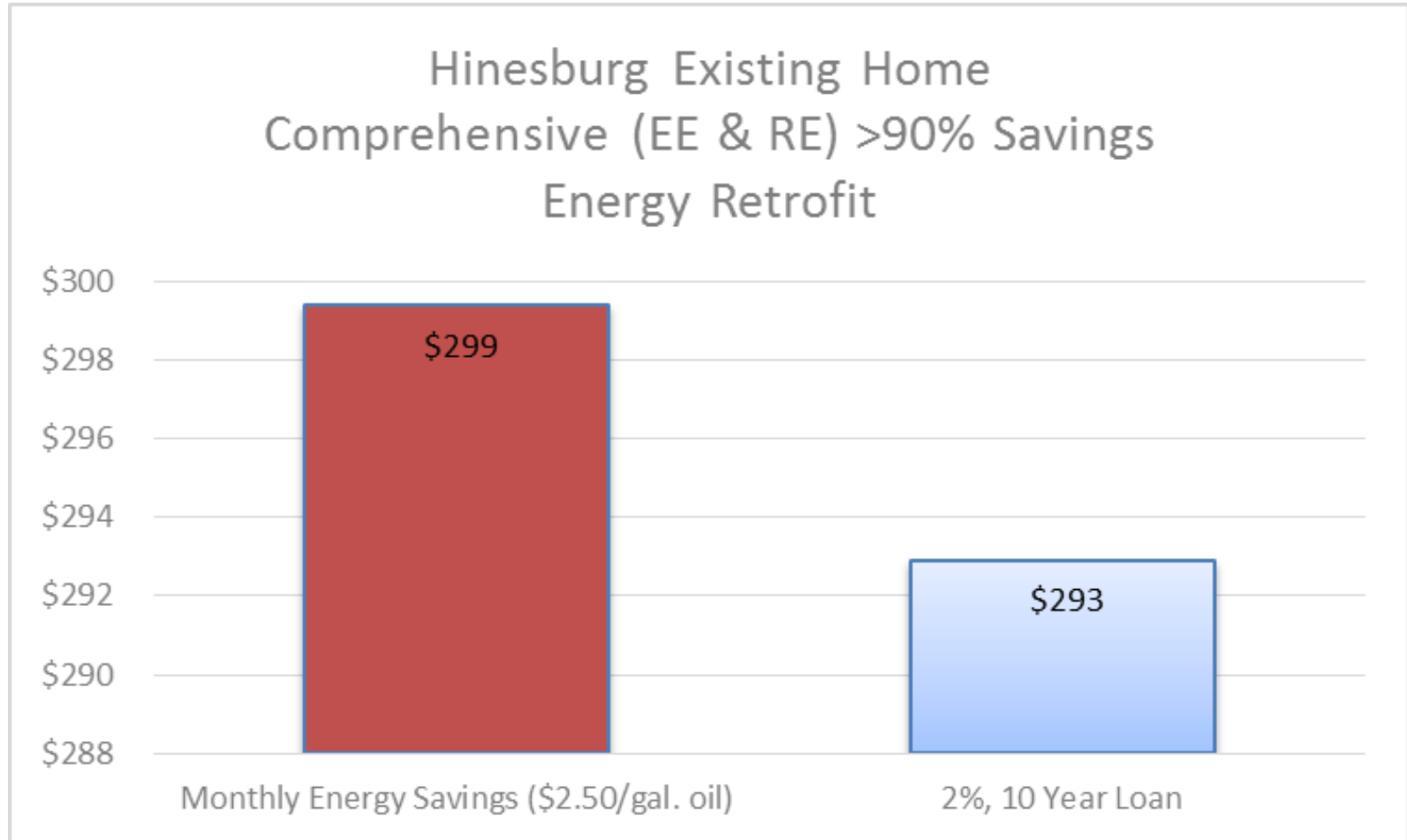
Hinesburg Case Study

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| Recommendations for Weatherization and Energy Work | | Estimated Cost | |
|---|---|-----------------------|-------------------|
| A. | Building Shell - insulation, air sealing, fans & audit | \$ 6,146 | |
| B. | Heat Pumps | \$ 13,500 | |
| C. | Solar PV | \$ 17,100 | |
| D. | Heat pump domestic hot water | \$ 2,200 | |
| | | | |
| | Total | | \$ 38,946 |
| | Potential Credits/Incentives (EVT & PV; no CVPS) | | \$ (7,113) |
| | Net Project Cost | | \$ 31,833 |

Hinesburg Case Study Cash Flow

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ZEN! Goals

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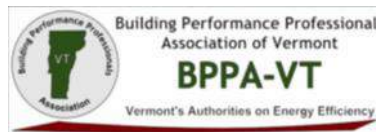
1. To develop a **comprehensive approach** to treating Vermont buildings holistically in order to **reduce purchased energy use by 50-100%**, while transitioning off of fossil fuels and onto renewables, supported by efficiency.
2. To develop an alternative yet **complimentary market-based approach** to Efficiency Vermont's programs, led and driven by BPPA.
3. To test the viability of the comprehensive approach through a challenge program and **deliver at least 50 participating homes in 2016**.
4. To **generate awareness, interest and a "buzz"** among homeowners; to grow market excitement, and accelerate activity beyond early adopters.
5. To produce a **training** and then offer it (in 2017) to building, renewable and efficiency contractors; suppliers; designers; officials and others in order to provide the capacity to deliver the comprehensive approach.
6. To build the experience and capacity to **meet Act 56 Tier 3** Energy Transformation goals.



Program Elements

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- Holistic energy modeling tool development (EUSAVE)
- Savings Guarantee
- 5-10 BPI Certified Contractors
 - Tool training
 - Sales training
- Marketing, promotion, case studies, create “buzz”
- Implementation
 - 2016
 - Utilize Efficiency Vermont’s infrastructure (up to \$2,000 incentives)
 - Bonus up to \$5,000 comprehensive incentive (in CVPS territory)
 - Building Energy Label



Program Standards (TBD)

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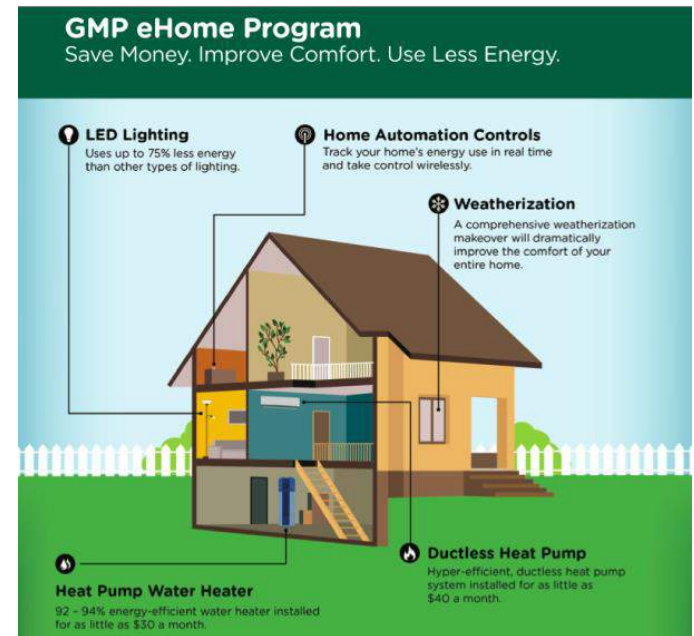
- At least 10% reduction in heating load
- Reduction in annual MMBtu/year of total fossil fuel and off-site electric energy usage by at least 50%
- Renewable heating system designed to meet at least 50% of the load of the house
- Offer any combination of energy efficiency and renewable energy improvements once the above thresholds are met.



Potential Impacts

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- H.40/Act 56 and Tier 3 (Energy Transformation)
- GMP eHome Program
- PSB Heat Pump Proceedings
- Meeting State Energy Goals
 - ▣ 80% of homes by 2020
 - ▣ 90% renewable by 2050



Help Us Meet Our ZEN! Goals

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- How can we spread the word?
- What local opportunities are there to pursue?
- How should we reach our target audience?
- What can you do in your town to encourage participation?



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Q&A

Malcolm Gray

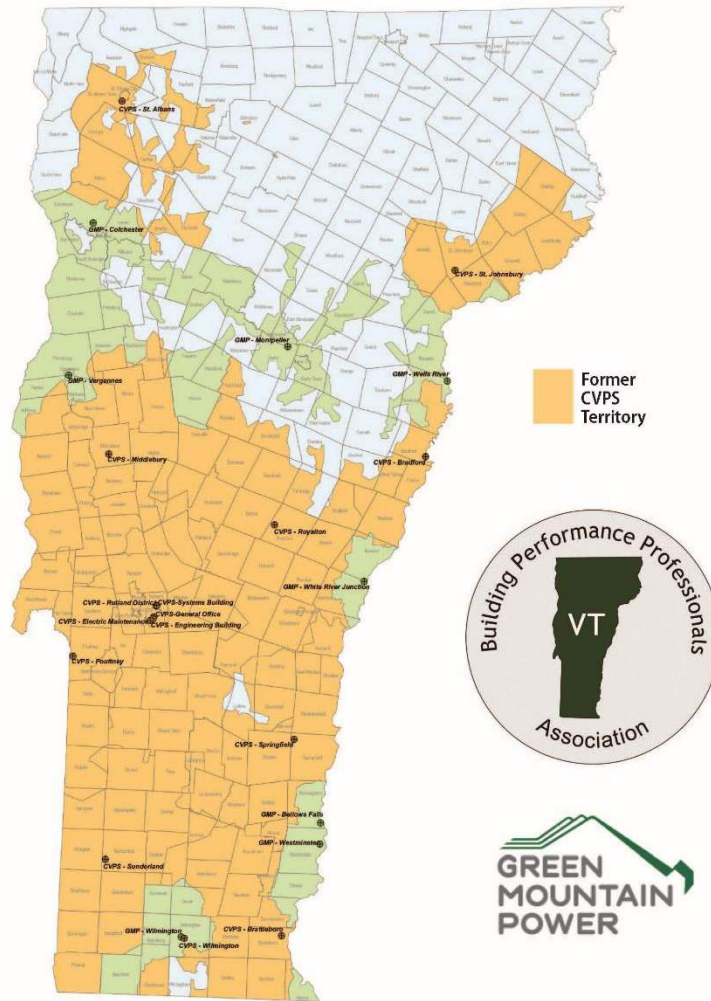
BPPA Board Chair

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