



The Return of Residential PACE: the Sequel

Steve Dunn

US Department of Energy

Session Goals

- Review PACE program results and best practices for effective policies and program delivery
- Share lessons learned: important program design elements, opportunities to accelerate adoption and/or coordinate PACE program implementation
- Explore successful pathways and factors for scaling up residential PACE
- Discuss emerging issues, such as consumer protection, integration with utility programs, and serving low-moderate income households
- Answer your questions: discussion and Q&A with PACE program experts

Session Panelists

- **Cisco DeVries**, Chief Executive Officer
Renew Financial
- **Mark Kelley**, Financing Program Manager
Vermont Energy Investment Corporation
- **Jewel James**
Vice President, Market Expansion and Policy
Renovate America

Why Residential PACE?

- U.S. Climate Change Goal:
 - Reduce emissions 26-28% below 2005 levels in 2025
- Homes play an important role
 - 110 million residential buildings
 - 22% of US GHG emissions and 3.9% of global emissions (equivalent to 1.2 billion metric tons CO₂ annually)
- Access to affordable financing products and services is key to bringing the benefits of home upgrades to a wide range of households and communities
- Co-benefits
 - economic development / jobs
 - improve health, safety and comfort of homes
 - environmental protection (e.g., water conservation, reduce air pollution)

Source: Buildings Energy Data Book, 2010. Table 2.4 <http://buildingsdatabook.eren.doe.gov/TableView.aspx?table=2.4.1>

PACE Financing Resources

- SEE Action
 - Energy Efficiency “Pathways Guide”, February 2016
 - <https://www4.eere.energy.gov/seeaction/EEpathways>
- PACE Nation
 - PACE legislation and programs, market data, case studies, news and updates
 - www.pacenation.us
- State Policy Opportunity Tracker (SPOT)
 - PACE adoption status by state, gap analysis, policy brief
 - <http://spotforcleanenergy.org/>

Visit the Residential Program Solution Center: energy.gov/rpsc

The image shows a screenshot of the Better Buildings Residential Program Solution Center website. The page features a navigation menu on the left with links like 'Solution Center Home', 'About', 'Handbook Index', 'Quick Links', 'Proven Practices', 'Energy Data Facts', and 'Glossary'. A central image shows a compass on a keyboard. Below it, a section titled 'Explore the Solution Center' includes icons for 'Market Position & Business Model', 'Program Design & Customer Experience', and 'Evaluation & Data Collection'. A 'RECENTLY UPDATED RESOURCES' section lists various articles. A process flow diagram on the right illustrates the four stages: Strategy Development, Planning, Implementation, and Evaluation.

Strategy Development

Planning

Implementation

Evaluation

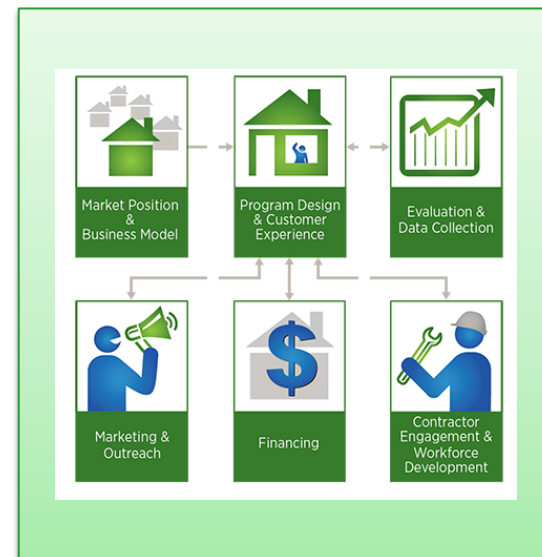
Better Buildings
U.S. DEPARTMENT OF ENERGY

Suggestions? Email BBRPSolutionCenter@ee.doe.gov

Related Resources in the Residential Program Solution Center

Financing resources:

- Read the [Financing – Identify Partners](#) handbook to learn how to identify and develop relationships with lenders that align with your program's goals.
- Watch the [Building Relationships with Financial Institutions](#) video to hear about the experiences of ShopSmart with JEA in Jacksonville, FL.
- Learn about developing loan products consistent with lending partners' and your program's objectives in the [Financing – Make Design Decisions](#) handbook.



- While you're there, see the latest [Proven Practices](#) post on [Evaluating Residential Program Success](#).

Contact Information

Thank You

Steve Dunn

Project Manager

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Lessons Learned from a PACE program in a small rural state

Mark Kelley
Program Manager



About VEIC

- Over 25 years of reducing economic and environmental costs of energy use
- Comprehensive approaches, high-impact results
- Energy efficiency, renewable energy, and transportation
- National and international clients
- Program design and evaluation
- Transformative policy, advocacy, and research
- Clients: government agencies, regulators, utilities, foundations, and advocates

Efficiency
Vermont

 EFFICIENCY\$MART

 DC
SUSTAINABLE ENERGY
UTILITY



veic.org

Efficiency Vermont - Who We Are

- Founded in 2000
- Statewide energy efficiency utility
- Administered by VEIC, under appointment of Public Service Board
- Offices in Burlington, Barre, and Rutland



What We Do

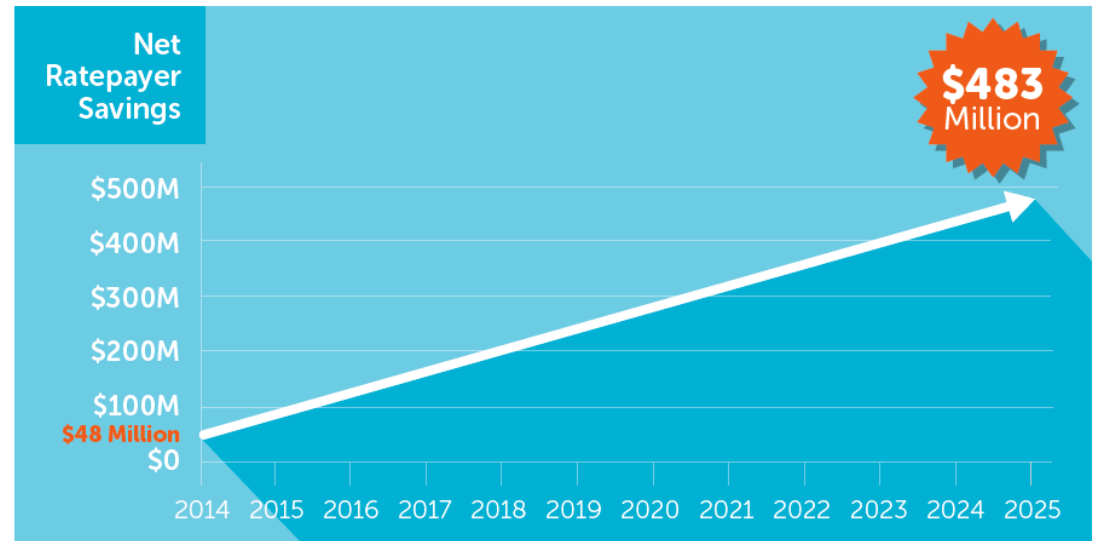
- Provide sustainable energy solutions
 - Education
 - Services
 - Rebates & Financing
- Serve all Vermonters
- Manage a statewide network of contractors



Our Results

Since 2000, Delivering Savings that Grow

- Every \$1 invested is yielding \$2 in savings.
- Vermonters' electric bills are lower (by 5% on average.)
- 90% of Vermonters have participated in energy efficiency programs.



Source: Public Service Department Report to Legislative Joint Energy Committee, 1/8/16

Vermont PACE

- ❖ Enacted by state legislature in 2009
- ❖ Unfunded when enacted
- ❖ Junior Lien
- ❖ Left up to each municipality to hold a vote, raise funds, design program, promote, process applications, billing, etc.
- ❖ Efficiency Vermont became the state-wide administrator to provide the above services free of charge

Basics of Vermont PACE

- ❖ Residential owner occupied 1 to 4 family units of:
 - ❖ Individual homes
 - ❖ Units of condos or coops
 - ❖ Mobile homes
 - ❖ Primary residences and vacation homes
- ❖ Eligible measures include qualifying thermal and electric efficiency, on-site renewables and EV charging stations
- ❖ \$3,500 - \$30,000 for terms of 10, 15 or 20 years
- ❖ Free analysis by EVT of energy savings, carbon reduction and project cash flow

Consumer Protection

- ❖ Underwriting criteria established by VTDFR
- ❖ Debt-to-income not greater than 41%, loan-to-value not greater than 90%
- ❖ PACE assessment cannot exceed \$30,000 or 15% of assessed value
- ❖ No past-due municipal bills, no involuntary liens, judgements, reverse mortgages, mortgages in default, etc.
- ❖ Cannot be an asset in any pending bankruptcy, legal or divorce proceeding
- ❖ All owners of the property required to sign PACE agreements
- ❖ Eligible measures list established by EVT annually
- ❖ Network of qualified contractors; Efficiency Excellence Network
- ❖ Detailed project cash flow analysis with projected energy savings provided by EVT prior to PACE application
- ❖ EVT reviews and approves each project prior to application
- ❖ No pre-payment penalties

Some bumps we've hit and how to avoid them

- ❖ Requirement for each municipality to hold a public vote
 - ❖ Ensure your program will be available to your entire geographic area from the outset
 - ❖ Not having enough eligible participants from the outset can stall or kill a PACE program
 - ❖ Design the on-boarding process for municipalities to be easy and scalable

- ❖ Default collection process does not work for the municipalities (process or software)
 - ❖ Work the process through with them upfront, in the program design phase
 - ❖ Understand the willingness of municipalities to be “on the hook” for collecting defaults
 - ❖ Be sure to have answers for all situations:
 - ❖ Bankruptcy?
 - ❖ What if the municipality ends up owning the property after tax sale?
 - ❖ Property tied up in probate, lease-to-own contracts, etc.

- ❖ Complicated and confusing process for potential borrowers
 - ❖ People shied away from advocating for PACE because it was too complicated to explain
 - ❖ Once information about your program is out there, even when you make improvements it is hard to get people to come around if they have developed a negative impression
 - ❖ Take the time to design the process well from the beginning and obtain copious amounts of feedback from as many sources as possible
 - ❖ **Refine before you launch!**

Suggestions to avoid problems

Talk with the people at the municipal offices who will be affected by your program

- Show them a draft of your process and ask for their feedback
 - If more than one municipality will be involved (as a state-wide program), talk with a cross-section of municipalities.

Suggestions continued

Talk with representatives of your:

- Lending community
- Realtors and appraisers
- Contractors
- Property tax assessors and collectors
- Local politicians on both sides of the isle.

Get their feedback, concerns and suggestions.

Things that worked well

- ❖ Local grass-roots energy committees
 - ❖ Strong correlation of success in areas where active energy committees exist
- ❖ Community-based workshops to educate and build interest in PACE
- ❖ Local funding source
 - ❖ In rural areas, people trust local banks and credit unions far more than out-of-state lenders
- ❖ Personalized service – meeting directly with city councils and municipal employees

Thank you!

Mark Kelley

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RENOVATE AMERICA™

Building a Better Future, Together

HERO in California

~86% California households can participate in the Program – 32 Counties, ~10.3 Million households

69,446 completed residential projects

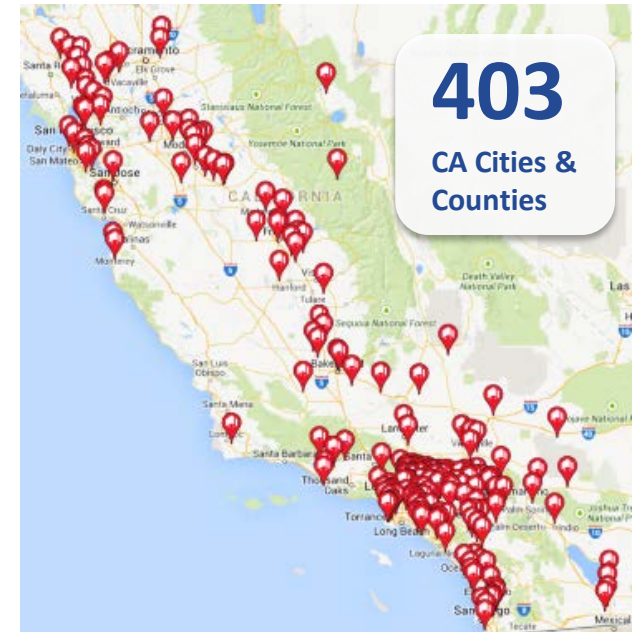
\$1.45 Billion funded in upgrades

12,291 local jobs created

\$2.5 Billion in annual economic impact

2.5 Million tons of abated CO₂ emissions

3.9 Billion gallons of water saved

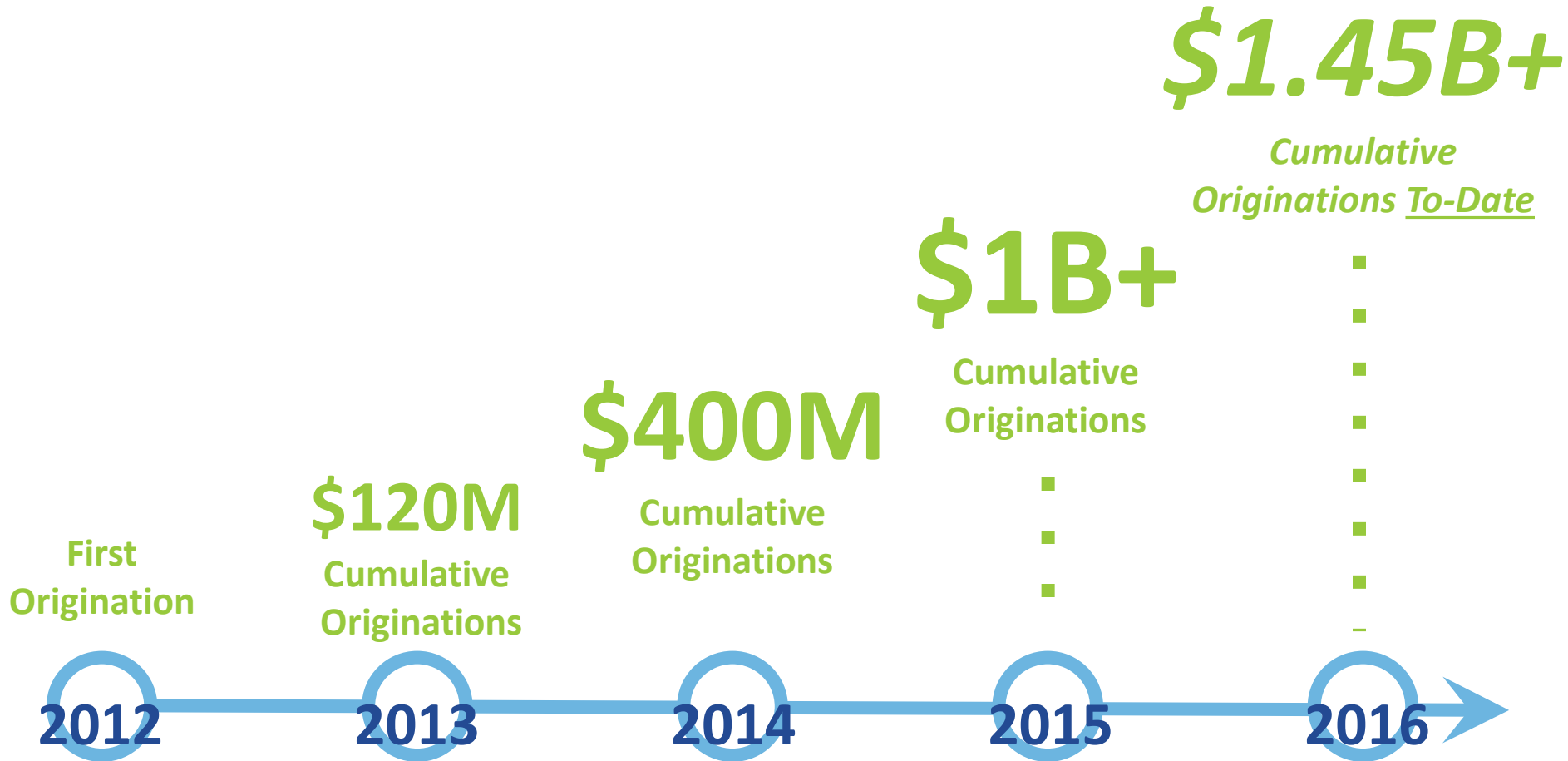


Said that HERO Program **Representatives are friendly**, knowledgeable and professional.



Said that they would recommend their **HERO Registered Contractor** to a friend or relative.

Bringing PACE to Scale



Impact of PACE Assessment on Home Value

Results of Study Recently Published in the Journal of Structured Finance:

PACE Homes Sold at a Premium of \$199-\$8,882 over Comparable non-PACE Homes Even After Taking Into Account the Financing Costs of the Project: Every methodology and data point in the analysis showed a positive PACE premium at resale, ranging from \$199 to \$8,882. The home price index methodology showed PACE premiums of \$199-\$8,882. The methodology comparing PACE to a random sample of similarly-situated non-PACE homes showed a PACE premium of \$5,010. The multivariate regression methodology showed a PACE premium of \$4,042.

Nearly \$7,000 PACE Premium for Homes Purchased from Foreclosure: Distressed sales that subsequently got a PACE improvement actually produced a higher home value premium (sample showed a \$6,824 PACE premium).

PACE Home Energy Renovations Recover More than 100% of Cost, while Other Home Improvements Do Not Come Close to Recovering Their Investment Costs: Analysis from the RemodelMax and the National Association of Realtors has shown that investments in other home improvements such as kitchen and bathroom remodeling on average recovered at resale 58-62.2% of their investment cost.

Rigorous Program and Underwriting Standards Lead to Strong Performance

- Contractor, product, pricing and permitting requirements
- Term \leq useful life of asset
- All assessments are fully amortizing
- Maximum 90% loan-to-value ratio
- Current on property taxes (and no more than one late over last 3 years)
- Current on mortgage (and no more than one 30 day late for last 12 months)
- No bankruptcy for last 7 years
- No involuntary liens on property
- \$5,000 minimum financing; maximum financing is 15% of property value
- Clear disclosures on terms and fees



- No bond delinquencies
- Average FICO = 710
- Average LTV < 70%

Our Consumer Protections

Unparalleled Consumer Protections

- We are working with other PACE providers and government partners to make these **industry-wide** – and confirmed by independent audits
- Banks and credit card providers don't offer the same consumer protections.
- Our consumer protections and service even extend beyond installation ...
 - ✓ **Selling and refinancing**
 - ✓ Even to **homeowners who are *not* our customers**

CONSUMER PROTECTION	HERO	OTHER FINANCING
Contractor Training	✓	✗
Pay Upon Project Completion	✓	✗
Customer Identity Verification	✓	✗
Terms Confirmation	✓	✗
Permit Verification	✓	✗
CA CSLB Confirmation	✓	✗
Product Eligibility Check	✓	✗
Fair Pricing Check	✓	✗

PACE Regulatory Landscape



Federal Housing Regulators Moving In A Positive Direction

“As the President announced, FHA will allow homeowners to benefit from energy efficiency improvements while preserving the marketability of properties with PACE loans. FHA will make financing available for single family homes with existing subordinated Property Assessed Clean Energy (PACE) loans...FHA will provide guidance to lenders that will outline the conditions under which FHA-insured mortgages may be used to finance properties with existing PACE liens.”



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, D.C. 20410-0001

THE SECRETARY

August 24, 2015

Dear Governor,

In light of President Obama's recent announcement regarding new energy efficiency programs for Property Assessed Clean Energy (PACE) financing and Home Energy Score, I am writing to let you know about the options the Federal Housing Administration (FHA) offers to make it easier for consumers to undertake energy efficiency improvements in their homes, and for owners and developers to improve the energy efficiency and install renewable energy projects on HUD assisted and insurance properties.

Benefits of Energy Efficiency Investments

Residential energy efficiency can be a good investment. Several studies show that the additional cost of many energy efficiency measures typically pay for themselves within the life of the equipment and over the life of a mortgage. However, despite the benefits, consumers don't always invest in the most energy-efficient equipment or products when they buy or renovate a home, for two primary reasons: they don't have the funds to cover the initial cost of energy-efficient measures, and they lack the information about the most cost-effective improvements.

Residential PACE Guidance

As the President announced FHA will allow homeowners to benefit from energy efficiency improvements while preserving the marketability of properties with PACE loans. FHA will make financing available for single family homes with existing subordinated Property Assessed Clean Energy (PACE) loans as long as they meet certain conditions. PACE is an innovative way to finance energy

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Building a Better Future, Together

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