



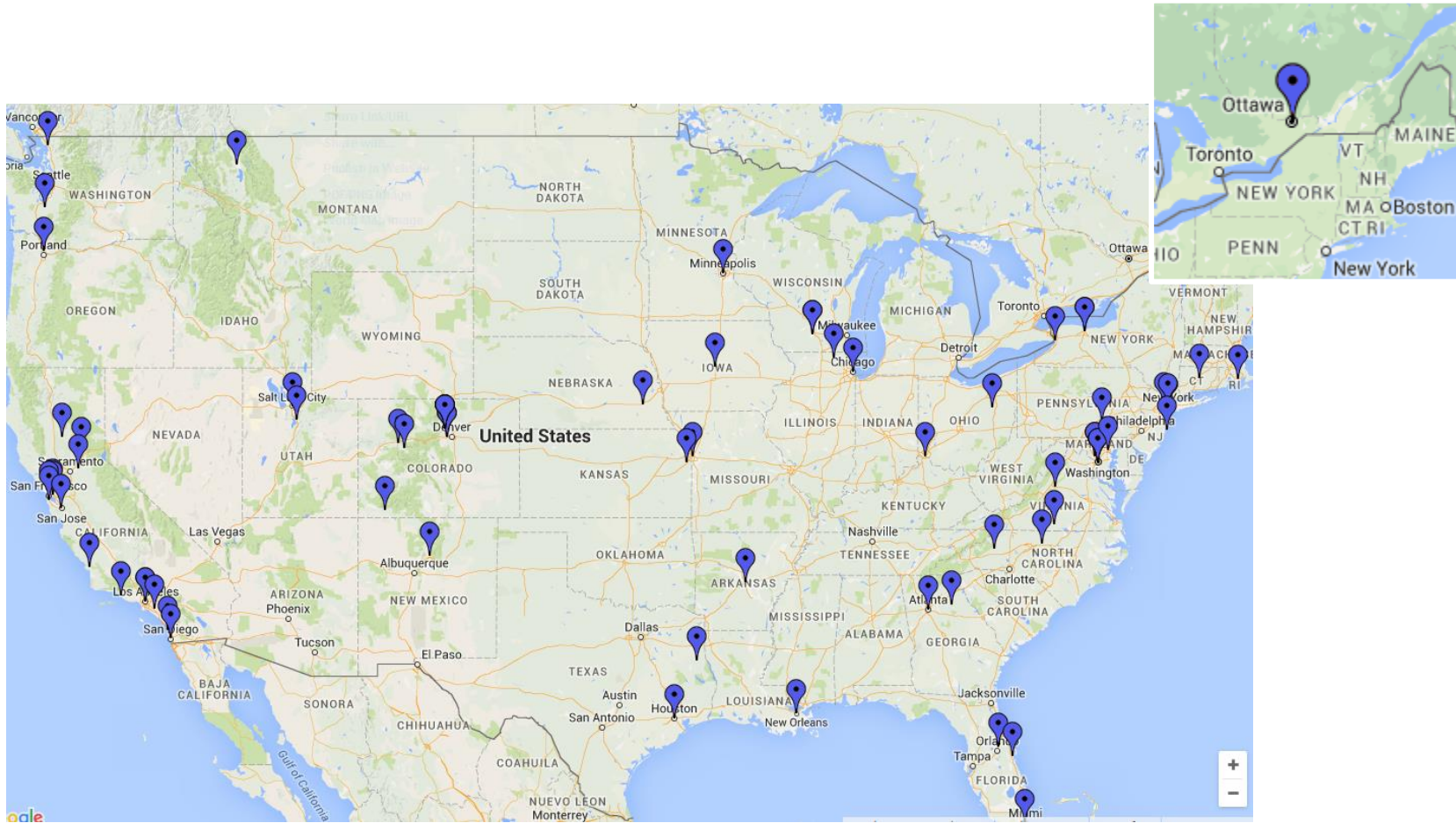
Better Buildings Residential Network Peer Exchange Call Series:

Home Improvement Catalyst: Sequencing Upgrades and Engaging Homeowners over Time (201)

March 24, 2016

Call Slides and Discussion Summary

Call Registrant Locations



Call Participants – Network Members

- Bridging The Gap
- Center for Energy and Environment (CEE)
- CLEAResult
- Clinton Climate Initiative - Home Energy Affordability Loan
- Energy Efficiency Specialists
- Energy Smart Home Performance
- Focus on Energy
- Greater Cincinnati Energy Alliance
- Housing Authority of the City of San Buenaventura
- Iowa State University, Department of Civil, Construction, and Environmental Engineering
- Midwest Energy Efficiency Alliance (MEEA)
- PUSH Buffalo
- Southface

Call Participants – Non-Members (1 of 2)

- AAA ENERGY AUDITS
- AJO
- AppleBlossom Energy Inc.
- BKi
- Blue House Energy
- Blue Ridge EMC
- Build It Green
- Building Performance Center Inc.
- Cascade Natural Gas Corporation
- Connecticut Green Bank
- County of San Luis Obispo
- CSRA
- ecobeco
- Ecolighten Energy Solutions Ltd.
- Efficiency Nova Scotia
- Energy Solutions
- Flathead Electric Cooperative
- Florida Solar Energy Center
- Greenspring Building Systems Inc.
- Groundswell
- Holy Cross Energy
- House So Green
- iAQ Systems
- JOHNSON A/C

Call Participants – Non-Members (2 of 2)

- Lincoln Electric System
- La Plata Electric Association
- Margiotta Architecture & Planning, LLC
- NANA
- National Renewable Energy Lab
- Navigant Consulting
- Nexant
- NJIT Center for Building Knowledge
- Natural Resources Canada
- NW Energy Coalition
- Parker Interests Unlimited
- Plant Vogtle
- PosiGen Solar
- Proctor Engineering Group, Ltd.
- Rocky Mountain Institute
- SEEC LLC
- Smith & Boucher Engineers
- Solar Habitats, LLC.
- Technicore Engineering Designers Inc.
- TRC
- UpGrade Ohio
- Utah Energy Conservation Coalition
- Virtuelements
- Wise Home Energy

Agenda

- Agenda Review and Residential Network Overview
- Home Improvement Catalyst Update, Steve Dunn, U.S. DOE
- Featured Speakers:
 - Julie Hayes, Milepost Consulting (***Network Member***)
 - Ellen Qualls, Renovate America (***Network Member***)
- Q&A and Discussion:
 - What are effective messages for motivating homeowners to undertake upgrades over time?
 - How can programs engage and support contractors in this process?
 - What internal tools and systems are helpful for contractors and programs?
- Closing Poll and Upcoming Call Schedule

Opening Poll

- What best describes your experience with engaging homeowners in undertaking home performance upgrades over time?
 - Actively involved in this work – **51%**
 - Some relevant experience – **29%**
 - No experience—just learning about it today – **17%**
 - Other (please chat in) – **2%**

Better Buildings Residential Network

Better Buildings Residential Network: Connects energy efficiency programs and partners to share best practices and learn from one another to increase the number of homes that are energy efficient.

Membership: Open to organizations committed to accelerating the pace of home energy upgrades.

Benefits:

- Peer Exchange Calls 4x/month
- Tools, templates, & resources
- Recognition in media, materials
- Speaking opportunities
- Updates on latest trends
- Voluntary member initiatives
- Residential Program Solution Center guided tours

Commitment: Provide DOE with annual number of residential upgrades, and information about associated benefits.

For more information or to join, email bbresidentialnetwork@ee.doe.gov

U.S. Department of Energy
Steve Dunn, Project Manager

Home Improvement Catalyst: Sequencing Upgrades and Engaging Homeowners Over Time (201)

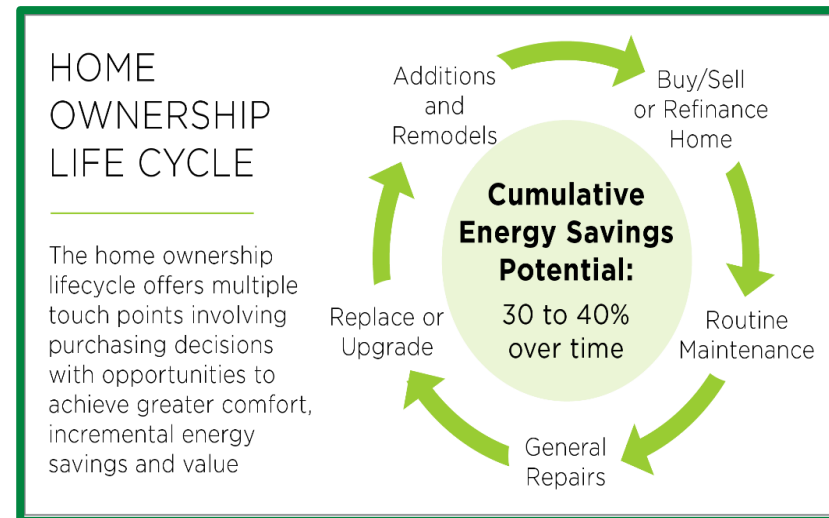


Home Improvement Catalyst (HI Cat)

Purpose: Identify and prioritize activities where DOE can have the greatest impact in accelerating adoption of energy efficient measures at key home improvement transactions.

Objectives:

- Focus on **demonstration** of individual measures, packages or practices especially in **heating and cooling**.
- Improve decisions during **typical home improvement transactions** including higher efficiency measures and systems approach.
- Provide **support** where there are **gaps** (e.g., few utility incentives, lack of industry standards, complicated code compliance, need for handoff from Building America, installation issues).
- Expand and demonstrate RBI's impact to **reach** more partners and more homes on a national **scale** (less savings per home than other RBI activities but on a wider scale).



The HI Cat Process Framework



Screen &
Prioritize

Assess
Opportunity

Map
Market
Strategies

- Conduct evaluation of home improvement products and services: technical potential, scalability, energy and dollar savings, etc.
- Stakeholder outreach to prioritize opportunities and “down select” home improvement measures for focus

Systematically assess technical and market barriers of “down selected” measures, identifying

- Pre-market activities , such as R&D, industry testing, etc.
- Market demonstrations in collaboration with Programs, manufacturers, retailers, and contractors

Formulate actionable plans that consider:

- The value proposition for the entire transaction chain
- Lessons learned and results from demonstration efforts
- Market strategies to demonstrate and exit strategy to reach scale

The Need: What are Stakeholders Indicating?

Stakeholder Group	Challenges and Opportunities	Needs/Interests
Program Administrators	<ul style="list-style-type: none"> • Product availability • Contractor reluctance • Transaction costs • Uncertain consumer demand • Cost-effectiveness of installation 	<ul style="list-style-type: none"> ✓ Enabling investments in EE upgrades overtime <ul style="list-style-type: none"> <u>Need:</u> Application of staged scores, with recommendations ✓ Engaging more trades in better HVAC installation <ul style="list-style-type: none"> <u>Need:</u> Tools for estimating energy savings and measure selection
Manufacturers, Trades, and Retailers (HVAC, Insulation, Home Performance)	<ul style="list-style-type: none"> • Unverified energy savings • Regional and housing diversity 	<ul style="list-style-type: none"> ✓ Advancing the customer for life concept <ul style="list-style-type: none"> <u>Needs:</u> <ul style="list-style-type: none"> • Messaging about the pathway, including use of a tool like the Home Energy Score • Technical standards and guidance

Enabling strategies for better performance in homes

- **Facilitate program collaboration** to collectively address challenges and share lessons learned
- Develop specific resources to support programs in offering **incremental approaches** to home upgrades
- Engage mid and upstream actors in **demonstration of effective models** to boost sales of energy efficient technologies and practices

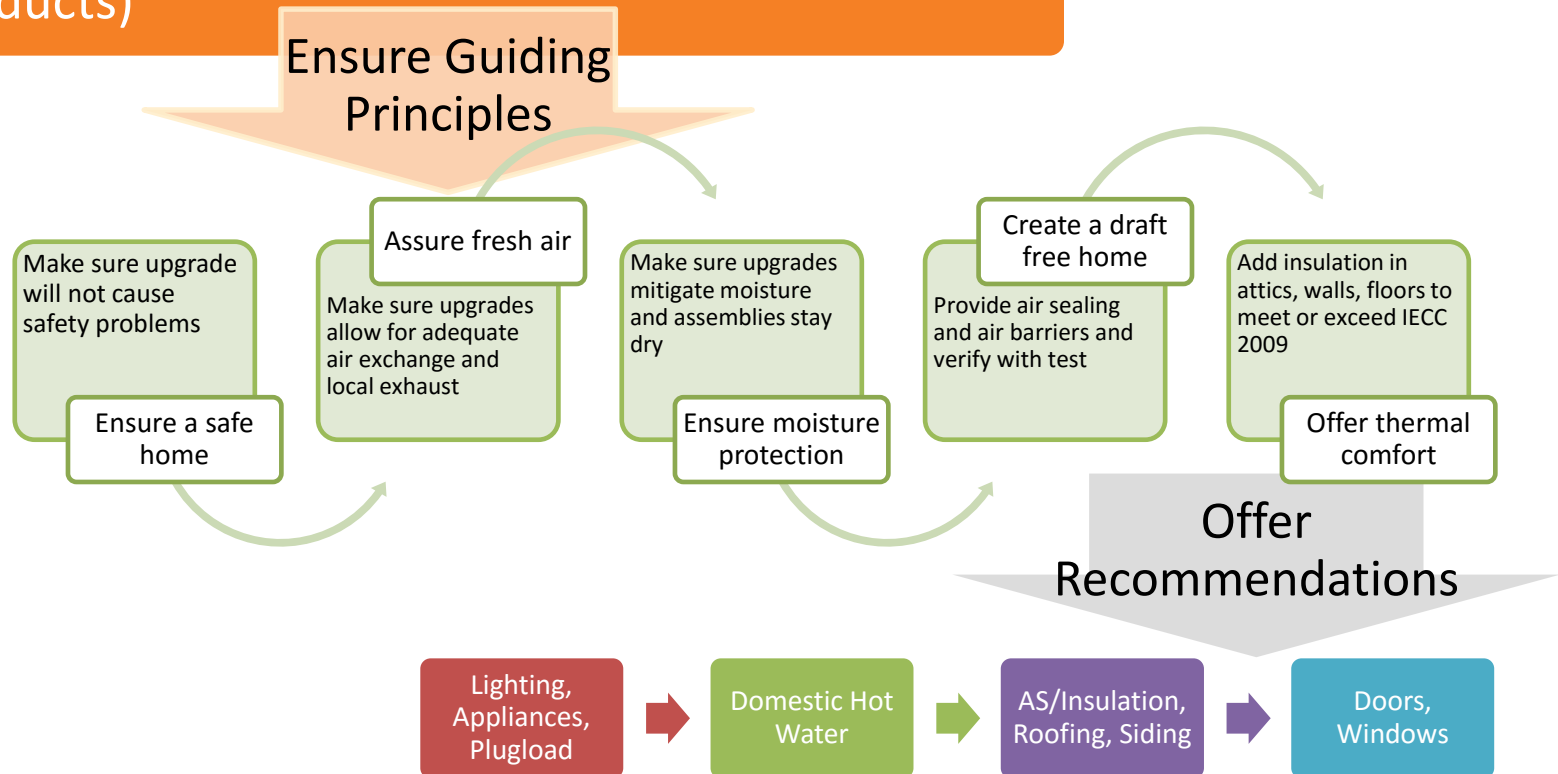


Sequencing Guide Example: Heating and Cooling Trade

Draft Concept

#1 Value Proposition: Sell/install equipment and/or service agreement

Install Efficient Mechanical systems: HVAC
(including ducts)

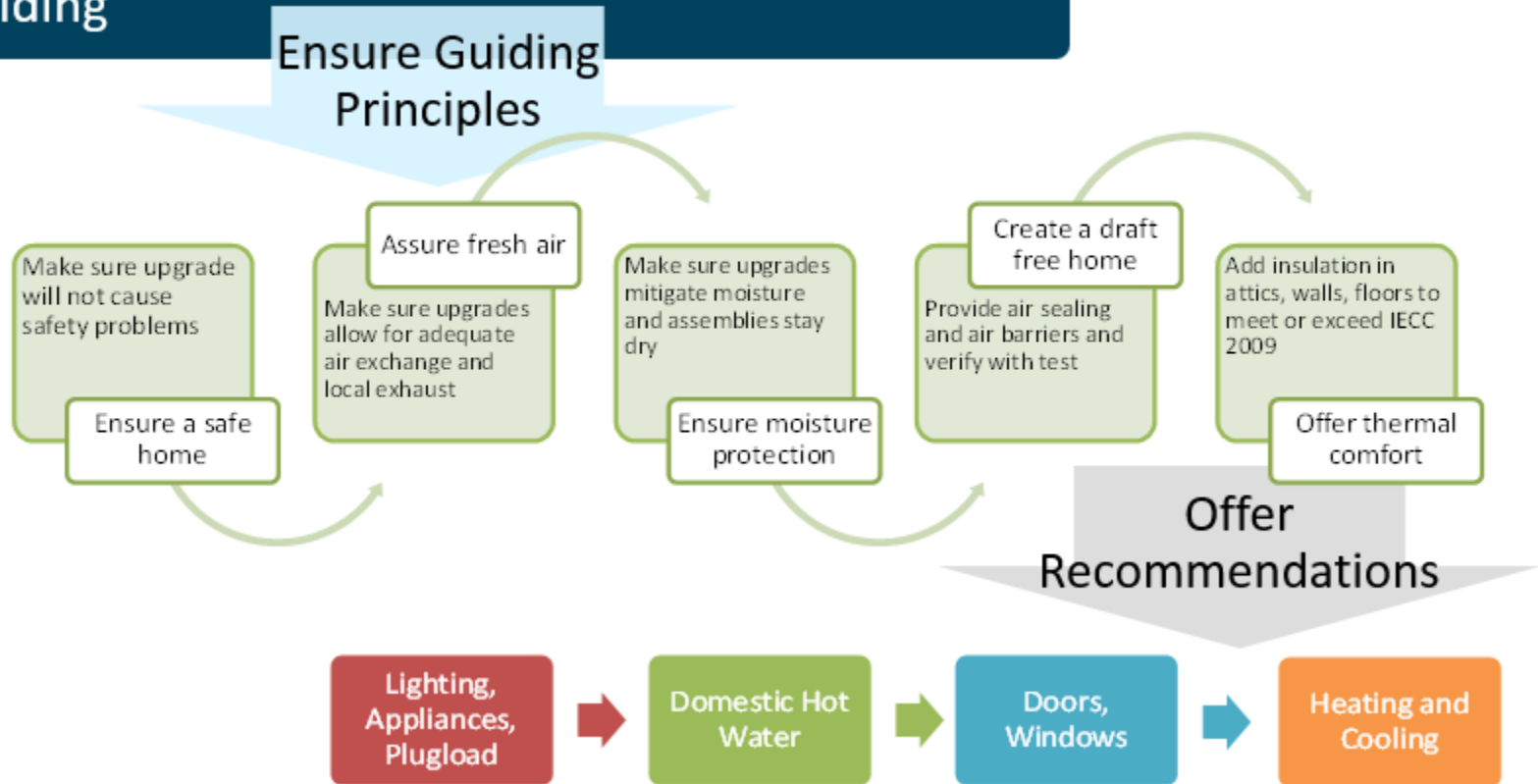


Sequencing Guide Example: Insulation/ remodeler Trades

Draft Concept

#1 Value Proposition: Sell/install equipment and/or solve homeowner comfort/design needs

Reinforce House Envelope: AS/ insulation, Roofing, Siding



Join us @ ACI National Home Performance 2016

- ✓ **Monday, April 4** at the Home Performance with ENERGY STAR Partner Meeting, special afternoon breakout session:
 - Home Improvement Catalyst - Leveraging the home improvement marketplace for energy upgrades
- ✓ **Wednesday, April 6, 1:30pm** during ACI Core Sessions:
 - The Value Proposition Challenge, showcasing TVA and Eversource
- ✓ **Thursday, April 7, 10:30am** during ACI Core Sessions:
 - America's Building Blocks to High Performance Housing



Program Updates: Home Improvement Catalyst (HI Cat)

- Conducted extensive interviews with contractors, trades, manufacturers, etc. to solicit stakeholder feedback on barriers and concerns with program design and resources.
- Program improvements will address three main areas:
 - Providing tools and resources for estimating energy savings and measure selection
 - Application of staged scores, with recommendations
 - Advancing the “customer for life” concept
- Sequencing guides will help contractors:
 - Identify proper processes when selling/installing equipment and/or solving homeowner comfort/design needs.
 - Help contractors and homeowners get back on track when measures may not happen in the preferred sequence.

Milepost Consulting

Julie Hayes, Senior Project Manager



LESSONS LEARNED IN ENGAGING HOMEOWNERS OVER TIME

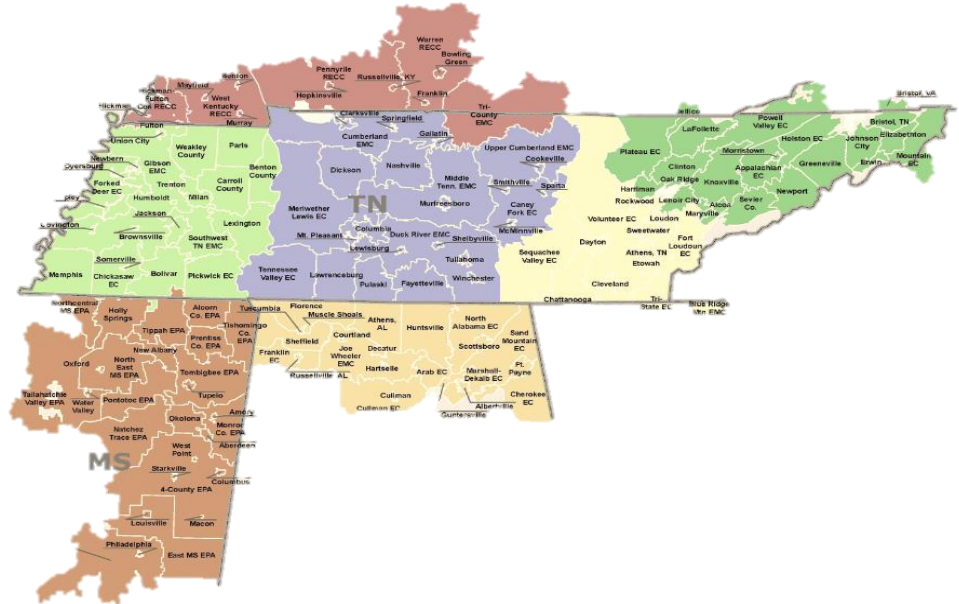
Julie Hayes, Director
Milepost Consulting, Inc.
March 24, 2016



Nation's largest public utility

Covers seven states, 80,000 square miles and 9 million people

155 local power company "customers" who serve end use customers



Program Design Goals



Serve more customers with same budget



Reduce administrative costs



Create a simple, centralized platform

Barrier Removal Strategy

Engage residents past 'one and done'

Eliminate pre-evaluation requirement

Reduce paperwork

Simplify reporting

Improve value proposition for trade allies

Increase transparency



Piloted Program with Key Customer

Analyzed Data and Customer Touch Points

Process

Conducted Qualitative Research with Key Stakeholders

Tested Design with Target Market

Integrated Behavior Change Best Practices

Findings Drive eScore Philosophy

1

CUSTOMER CENTRIC

Designed to enhance and support customer experience over the time it takes to get a 10

2

CONTRACTOR DRIVEN

Quality Contractor Network provided with tools and support they need to sell the program

3

TECHNOLOGY ENHANCED

Delivered using tablet/Smart Phone technology - no paper, no hassle, no problem

4

COST EFFECTIVE

Streamlined processes reduce cost and support goal of serving more for the same budget

Multiple Onramps to eScore



eScorecard

Highly personalized

Easy to understand 1-10 Scoring

Make your home the best it can be



Behavioral Insights

- Avoid single action bias and choice overload with recommended actions
- Encourage self-efficacy with clear path



eScore Technology

Online portal - no paperwork required

Self Audit app in iTunes and Google Play store

Scorecard updates after each improvement

Includes photos of actual home and easy tips



Behavioral Insights

- Relativity and feedback emphasized with photo layout within scorecard and Energy Advisor home visit
- Utilizes foot-in-the-door technique with easy tips throughout

eScore Transparency

Customers surveyed after every Contractor and Energy Advisor visit

Results published on portal

Energy Upgrades Nashville	Homes Upgraded:	34	Air Sealing
	Inspections Passed:	92%	Attic Insulation
	Submittals Complete:	94%	Duct System
	Satisfaction Rating (1-5):	4.53	Wall Insulation
	# of Satisfaction Surveys:	8	Windows & Doors
Bobby Reese Inc.	Homes Upgraded:	5	Duct System
	Inspections Passed:	100%	HVAC System
	Submittals Complete:	100%	
	Satisfaction Rating (1-5):	4.60	
	# of Satisfaction Surveys:	2	
Clinard Home Improvement	Homes Upgraded:	73	Attic Insulation
	Inspections Passed:	98%	Windows & Doors
	Submittals Complete:	99%	
	Satisfaction Rating (1-5):	4.35	
	# of Satisfaction Surveys:	15	



Behavioral Insights

- Utilizes elimination heuristic to help customer make informed decision
- Avoids external barrier excuse by showing customers available, certified contractors in their area

Results



24,967+

EVALUATIONS &
INSPECTIONS



28,415+

UPGRADES



\$119M

CUSTOMER SPENDING



\$6.36M

CUSTOMER
REBATES



4.9/5.0

Advisor average

4.6/5.0

Contractor average

CUSTOMER RATINGS



+45%

FIELD CAPACITY

Lessons Learned

- Utilize **behavior change** best practices and **customer driven design** to remove barriers to engagement
- Provide **onramps** to program thru most likely “real life” scenarios
- Engage customers **over time** with simple steps that support their timeframe and budget
- Implement **modern technology** to engage customers and streamline processes for contractors
- Build trust with customers and contractors thru **transparency**
- Research the needs of your **salesforce** with the same rigor as your customers

<https://www.2escore.com/>



Presentation Highlights: Milepost

- **Create different “on-ramps” for customers to join the program:**
 - Portal Up! Contractors enroll customers real time using a smart phone.
 - eScore Self Audit: Pre-scoring allows customers to conduct a guided evaluation of their home’s energy efficiency.
- **Know your customer:** eScore conducted extensive interviews during program design and found:
 - Comfort and saving money were more compelling for customers than being “green.”
 - Customers wanted to be able to achieve a perfect score, a 10/10; programs that make this unachievable may be frustrating and cause homeowners to lose interest.
- Customers want choices, but **too many choices can be overwhelming.** Give customers options, but provide clear pathways to obtain savings.
- Examine “pain points” for contractors to **identify where the program could be more efficient** for their needs.
 - Milepost found that “de-coupling” rebates allowed customers/contractors to obtain and allocate rebates based on the work the contractor specialized in, such as separating HVAC and duct-sealing work rebates.

Renovate America, Inc

Ellen Qualls, VP for Communications & Public Affairs

Promoting the Mass Adoption of Home Energy Efficiency



Marketplace Failure

Every year, 1 in 6 homeowners will upgrade or replace a system that affects energy consumption.

- In the United States, that's 22.5 million homes ...
- 3 out of 4 don't choose the most energy efficient solution ...
- That's nearly 17 million missed opportunities.

How PACE Helps

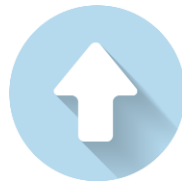


Benefits to Property Owners



Protect Access to Credit

Collecting payments through property taxes keeps home equity line and credit card available for goals or emergencies.



Increase Affordability

No upfront cash, may lower utility bills, no prepayment penalties, and interest may be tax deductible.



May Increase Property Values

Studies show energy investments are recovered at time of sale or value of home is actually increased.



Housing

A study shows lower default rates on energy efficient homes; deferred maintenance projects are finally affordable.

Protect

Benefits to Government Partners

Private Capital Funds Public Policy Objectives

- No taxpayer money or public risk because PACE provider securitizes the asset
- Private capital helps meet goals on climate, safe and affordable energy, access to credit, and jobs
- Real-time impact reporting
- Home improvement industry subject to new, unmatched consumer protection standards
- Housing stock is modernized through voluntary measures



Bruce & Kimberly Stagger | HERO Homeowners

“Our electricity bill said ‘you owe 96 cents, do not pay this bill.’ Why doesn’t everyone get HERO?”

– BRUCE STAGGER

Renovate America



Our Impact



\$2.31 Billion in Economic Impact



+11,000 Jobs Created



+3.5 Billion Gallons of Water Saved



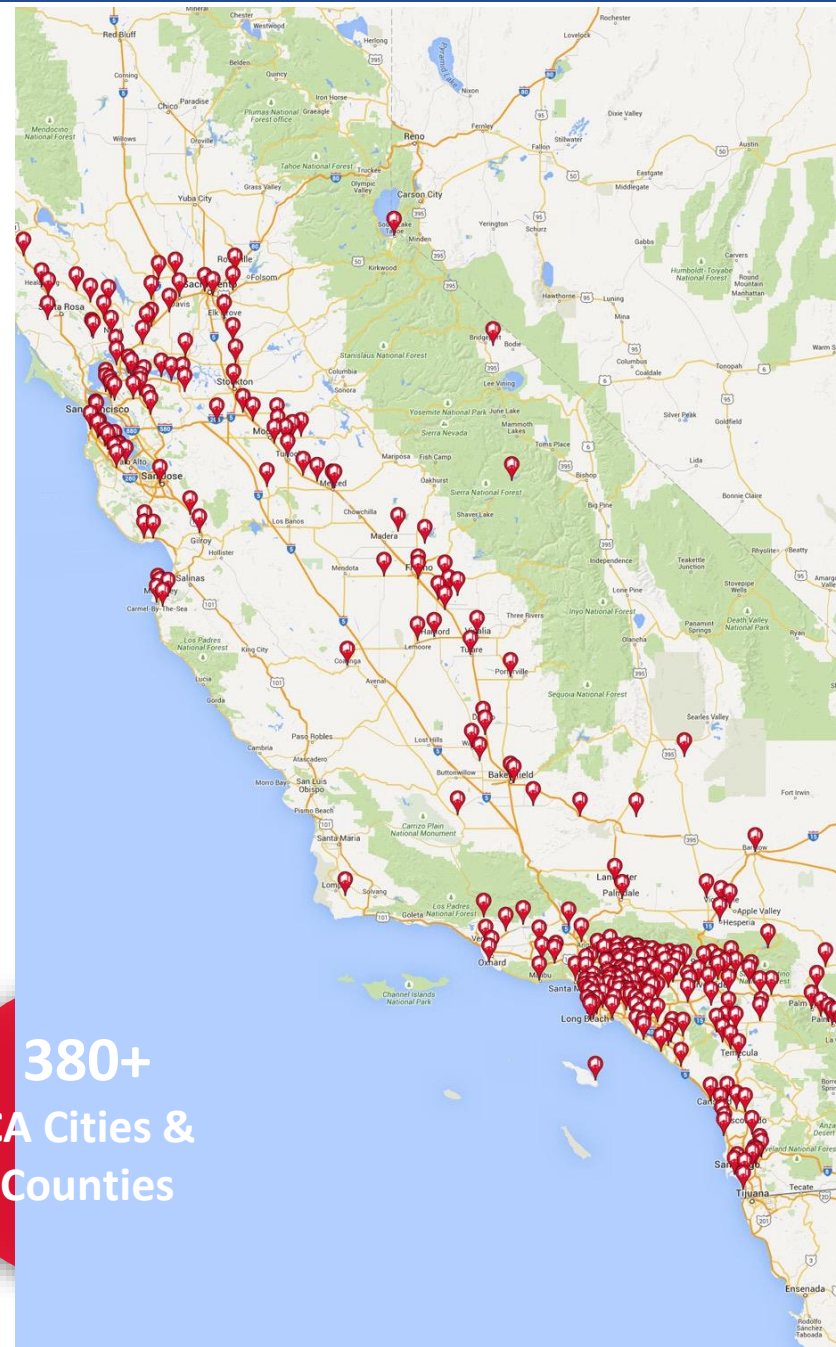
+8.6B kWh of Energy Saved



\$2.7 Billion in Utility Savings



+2.25 Million Tons of CO₂ Emissions Saved



380+
**CA Cities &
Counties**

Our Platform

Renovate America's PACE program HERO is the leading residential energy efficiency solution in the nation.

We have:

- A proven **track record** of \$1.3 Billion in financing across 57,000 homes
- A **proprietary software platform** changing how contractors do business
- **1 million+ product list** that ensures only products rated as efficient are installed
- A **contractor network of 7,000+ companies**
- The most extensive **consumer protections** of any consumer lending

Our Consumer Protections

Unparalleled Consumer Protections

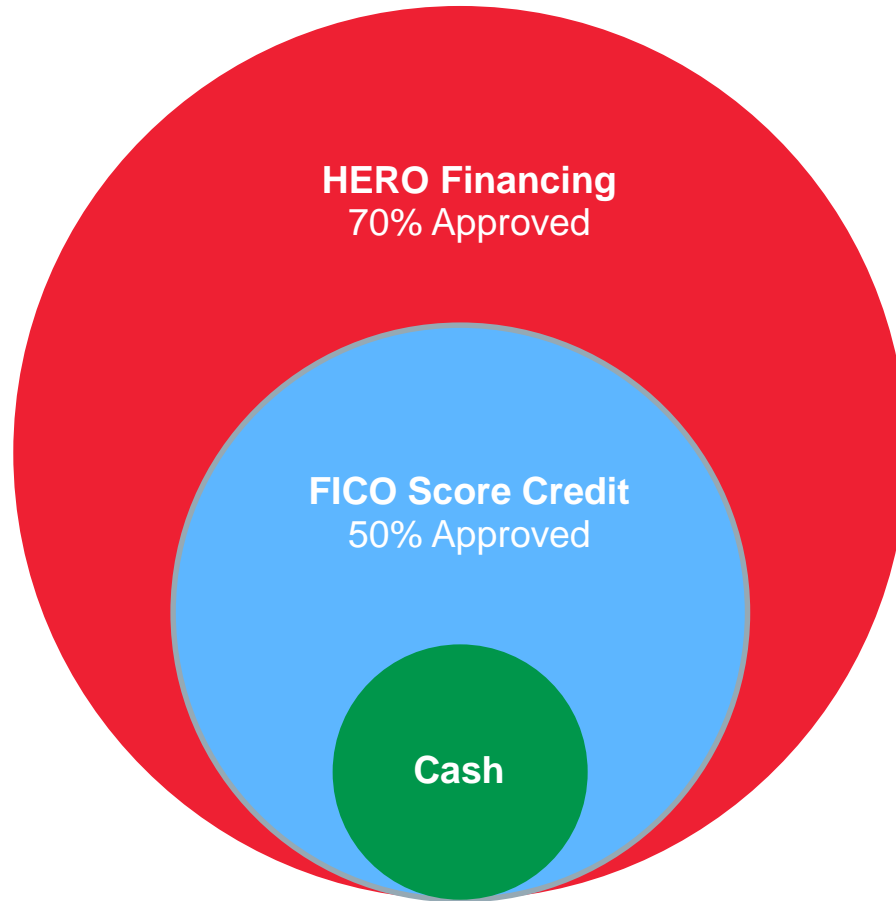
- We are working with other PACE providers and government partners to make these **industry-wide** – and confirmed by independent audits
- Banks and credit card providers don't offer the same consumer protections.
- Our consumer protections and service even extend beyond installation ...
 - ✓ **Selling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

HERO Registered Contractors



More People Qualify for HERO



Trained & Registered Local Contractors

HERO provides a comprehensive training and registration program, designed to familiarize contractors with the financing terms and the property owner approval process.

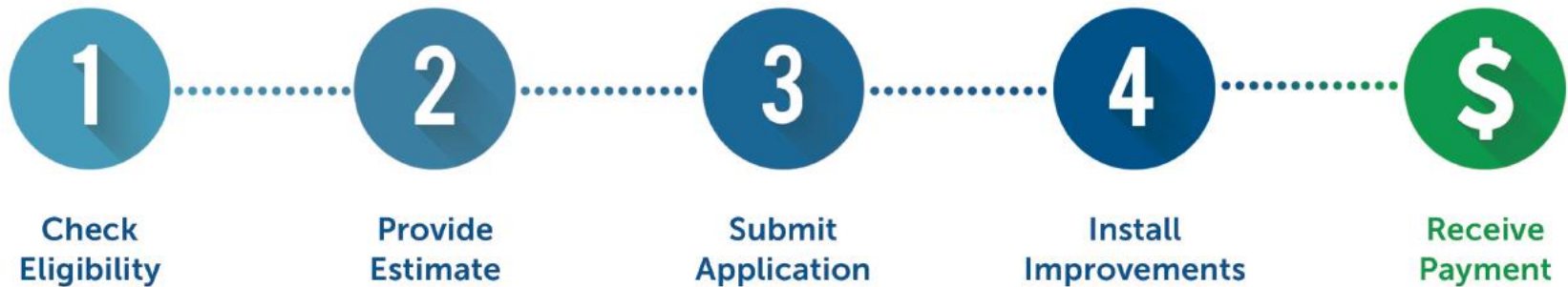
Training Covers:

- Sales
- Software
- Product Eligibility
- Document Processing
- Completion Certification
- Payment Options
- Co-Marketing Program
- Brand Usage Guidelines



Automated Process

HERO has optimized every step of the job life cycle to ensure property owners have a seamless experience getting approved, and that contractors are paid quickly when the homeowner is satisfied. Applicants can be approved in minutes based on home equity and a proven track record of paying their mortgage and taxes.



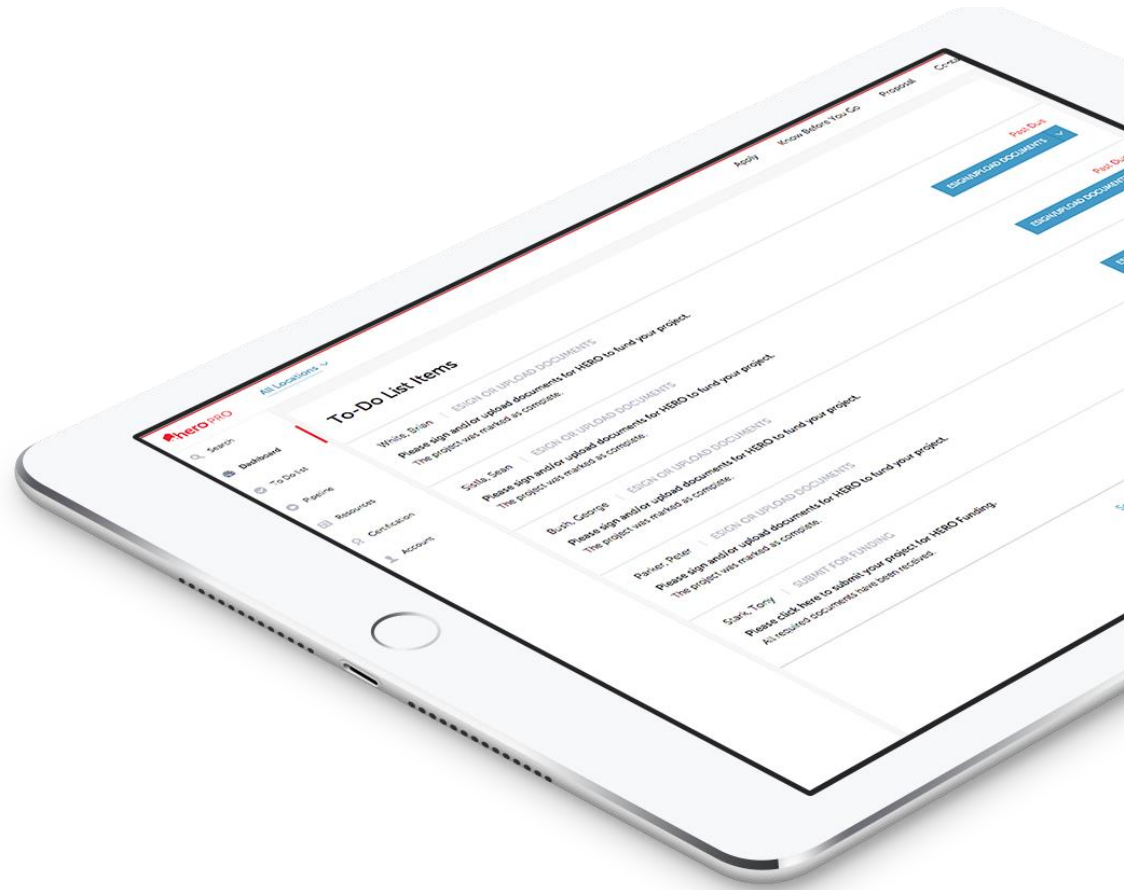
- Financing closes in 24–48 hours
- Funding is usually within 24–48 hours

HERO Pro

HERO Registered Contractors have access to HERO Pro –an integrated, secure platform designed to make the estimating, approval, documentation and funding process as easy as possible for homeowners and contractors.

Features:

- Interactive Sales Tools
- Estimating Calculators
- Energy Savings Calculators
- Financing Document Generation
- Electronic Signature Capabilities
- Information and Updates
- Web-based Training Curriculum
- Marketing Resource Center
- Company-specific webpage at heroprogram.com/companyname



Presentation Highlights: Renovate America, Inc

- **Financing is crucial** in influencing a customer's decision to purchase energy efficient products. Replacements, like HVAC, are oftentimes unexpected and leave customers grappling with how to pay.
- When third parties, such as contractors, are the main point of contact to communicate products and services, there is potential for miscommunication and an opportunity for error. Minimize this by **soliciting customer feedback** at several points in the process to understand how customers are experiencing the program and ensure quality.
- Provide customers with **dispute resolution services** to raise the perception in the community that there is someone to turn to when contractors do not provide quality services.

Explore planning, implementation, & evaluation strategies in the Residential Program Solution Center

- [Handbooks](#) - explain *why* and *how* to implement specific stages of a residential program.
- [Quick Links](#) - provide easy access to resources on the key issues that many programs face.
- [Proven Practices](#) posts - include lessons learned, examples, and helpful tips from successful programs.
 - See the latest post on [“Word of Mouth” Communications](#).



www.energy.gov/rpsc

The Solution Center is continually updated to support residential energy efficiency programs—[member ideas are wanted!](#)

Discussion Highlights

- Online resources can help at each stage of the process:
 - **Cut down overhead** while making products and services more widely available to customers.
 - **Aid contractors** with an online space to keep track of business licenses, insurance, and renewal reminders.
 - **Educate salesforce** through web-based classes and educational tools for contractors to continue learning without the barrier of attending a physical class.
- **Ensure transparency** for customers through built in solicitations for feedback to ensure quality.
- **Understand “danger points,”** where information may be miscommunicated or left out, to better protect customers and provide program support.
- Financing is a critical part of customer interest in energy efficiency; **Provide resources and materials** electronically to help contractors accurately pitch financing and explain programs to customers.

Peer Exchange Call Series

We hold one Peer Exchange call every Thursday from 1:00-2:30 pm ET

Calls cover a range of topics, including financing & revenue, data & evaluation, business partners, multifamily housing, and marketing & outreach for all stages of program development and implementation

Upcoming calls:

- April 14: Training: How to Get Results - What Matters, What Doesn't (201)
- April 21: Advances in Integrating Energy Efficiency into the Real Estate Market (301)
- April 28: Driving Change in Residential Energy Efficiency: Electric Vehicles (301)
- May 5: Five and Dime: Revisiting Strategies for Lowering the Costs of Delivering Energy Efficiency (101)

Send call topic ideas to peerexchange@rossstrategic.com

See the Better Buildings Residential Network Program [website](#) to register

Meet DOE at ACI Sessions, April 5-7

- April 5:
- Home Upgrade Program Models for Acquiring Savings in Multiple Climate Zones
 - Residential Energy Labels, Why Should You Care & What Do You Do About It?

- April 6:
- Showcasing Home Performance with ENERGY STAR Contractors
 - Transforming the Market with HPXML: Strategies and Lessons Learned
 - What Building America Learned in 4 Years About Retrofits & Staged Upgrades
 - Realizing the Market Value for High Performance Homes: Reports from the Field
 - Health & Home Performance: Unlocking New \$, Marketing, & Project Data Value
 - The Quest for Smarter Performance Measurement
 - Home Energy Data Huddle: Getting together to Build an Information Pipeline
 - The Value Proposition Challenge

- April 7
- Home Performance Financing Update & Options to Help Close More Jobs
 - Your Contractors: A Gateway to Better Programs
 - America's Building Blocks to High Performance Housing

Download full [ACI National Home Performance Conference Agenda](#) for more details

LET'S ALL MEET IN MAY!

REGISTER TODAY for the BETTER BUILDINGS SUMMIT

Washington, DC · May 9-11, 2016

This Summit will bring together Better Buildings partners and stakeholders to exchange best practices and discuss future opportunities for greater energy efficiency in America's homes and buildings.

There will be time set aside for a specific Residential Network discussion and meet-up! See the draft agenda [here](#).

Thank you!

Please send any follow-up questions or future call topic ideas to:
peerexchange@rossstrategic.com