
June 2, 2016

*Call Slides and Discussion Summary*
Call Attendee Locations
Agenda

- Agenda Review and Ground Rules
- Opening Poll
- Brief Residential Network Overview
- Featured Speakers
  - Melanie Paskevich, Program Manager, NeighborWorks of Western Vermont (Network Member)
  - Frank Rapley, Senior Manager, Tennessee Valley Authority
- Discussion
  - What approaches has your organization used (or do you plan to use) to improve the efficiency/effectiveness of home upgrade programs and processes?
    - What lessons have you learned about what has worked well (or not well) with process-improvement efforts?
    - How can programs track and evaluate success with improvements?
  - What are the challenges has your program encountered with reducing the costs of delivering services? How has your program navigated challenges?
  - Other questions/issues related to lowering cost of delivering energy efficiency?
- Closing Poll and Upcoming Call Schedule
### Call Attendees: Network Members

| American Council for an Energy-Efficient Economy (ACEEE) | Energy Efficiency Specialists |
| Boulder County | Honeywell International, Inc. |
| Bridging The Gap | Mountain Association for Community Economic Development |
| Build It Green | National Housing Trust/Enterprise |
| CalCERTS, Inc. | Operation Green Team |
| California Energy Commission | Performance Systems Development (PSD) |
| Center for Sustainable Energy | Southface Energy Institute |
| City and County of Denver | Stewards of Affordable Housing for the Future |
| City of Aspen Utilities and Environmental Initiatives | TRC Energy Services |
| City of Fremont | Vermont Energy Investment Corporation (VEIC) |
| City of Kansas City | Wisconsin Energy Conservation Corporation (WECC) |
| CLEAResult | Energize New York |
| Conservation Consultants, Inc. | Elevate Energy |
Call Attendees: Non-Members

- 80/20 Sustainable Solutions
- Appalachian Voices
- AppleBlossom Energy Inc.
- Architectural Nexus
- BA Consult
- Ballarat Consulting
- BKi
- Building Envelope Materials
- Bundle LLC
- Canadian Home Builders' Association (CHBA)
- Cascade Natural Gas
- City of Atlanta
- City of Atlanta - Mayor's Office of Sustainability
- City of Chicago
- City of Milwaukee
- City of Minneapolis
- City of Orlando
- City of Philadelphia Office of Sustainability
- Collaborative Efficiency
- Craft3
- CSRA, Inc.
- Dominion Due Diligence Group
- Downtown DC Business Improvement District
- Emerald Cities Seattle
- Energy Branch
- Energy metering Technology
- EnerScore Inc.
- ENSYSS
Call Attendees: Non-Members

- ERG
- Essess, Inc.
- Eversource Energy
- Flathead Electric Cooperative
- FMC Facility Management Consultores
- Franklin Energy
- Fruitfull Energy
- Groundswell
- HGI
- High Performance Building Solutions
- Holy Cross Energy
- Home Energy Analytics
- International Center for Appropriate and Sustainable Technology
- Invisco Whole House Fan
- Island Institute
- Jefferson County Community Development Office
- LEAP
- Leidos
- LINC Housing
- Michaels Energy
- NANA
- National Park Service
- Net Zero Building Systems
- Nexant
- NorthWestern Energy
- NW Energy Coalition
- Oak Ridge National Laboratory
- Oakland Livingston Human Service Agency
- Onatario Ministry of Energy
Call Attendees: Non-Members

- Opportunity Council/ Community Energy Challenge
- OptiMiser
- Pacific Northwest National Laboratory
- Pennsylvania Governor's Green Government Council
- Plant Vogtle Units 3 & 4
- Public Services Enterprise Group
- PUSH Green
- Seattle City Light
- Solar Habitats, LLC.
- South Dakota Housing Development
- StopWaste
- Studio Jack Rees
- Sustainable Connections
- Technicore Engineering Inc
- Tennessee Valley Authority
- Texas State University
- The Durst Organization
- The Energy Network
- This Efficient House
- UpGrade Ohio
- Utah Governor's Office of Energy Development
- Washington Department of Commerce
- Wausau Supply Company
- WDP & Associates
- WSP Canada
Opening Poll

Which of the following best describes your organization’s experience with the call topic?

- Some experience/familiarity – 50%
- Very experienced/familiar – 27%
- Limited experience/familiarity – 15%
- No experience/familiarity – 6%
- Not applicable – 2%
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, energy.gov/eere/better-buildings-residential-network/join
Home Upgrade Program Accelerator

Vision
Lower cost administration for home energy upgrade programs to enable growth to millions of homes per year

1 Complete Process Improvement
   ▪ Implement Home Performance XML data standard and other process improvements in home upgrade programs

2 Document Process Changes
   ▪ Demonstrate approaches for reducing program administrative costs enabled by HPXML and other strategies

3 Determine Cost Savings
   ▪ Analyze and document cost and time savings of streamlined approaches

4 Disseminate Best Practices
   ▪ Highlight partner successes and develop a toolkit to encourage adoption of best practices.

5 Success Metric
   Deploy HPXML in programs representing at least 25% of home upgrades nationally and document time and cost reductions from this and other approaches to streamline program administration.
Program Experience:
NeighborWorks of Western Vermont
Five and Dime: Revisiting Strategies for Lowering the Costs of Delivering Energy Efficiency

Melanie Paskevich, Program Manager
NeighborWorks of Western VT

- **Nonprofit** housing organization
- One-stop-shop
- Provide all the answers and support homebuyers and owners need
- Keep customer’s best interest front and center
- **Realty, Lending, Financial Counseling and Education, Home Repair, HEAT Squad**
- Part of a national nonprofit network, *NeighborWorks America*
Meet the HEAT Squad

- Providing **support** to improve efficiency of homes/businesses, regardless of income since 2010
- **Reduced cost audits**, same day audit reports, objective advice, help with contractors, in-house financing
- Available in five counties, half of Vermont
- Completed almost **4,000 audits and 1,500 projects**
- **Partners:** Efficiency VT, Green Mountain Power, Local Contractors, Energy Committees and Champions
- **Struggle** of multiple data entry
- **Strategy** to streamline data entry
- **Synergy** of the overall program
Lori spends 45 min. processing (1) audit intake… CRAZY!
Struggle: Multiple Data Entry

Audit

Corey spends almost 2 hr. submitting (1) audit..... CRAZY!
Strategy: Streamline Data Entry

Intake goes from 45 min. to 15 min.- cut by 2/3!!
(For 1 audit processed, Lori can now process 3 audits)

HUGE INCREASE IN PRODUCTIVITY!
Strategy: Streamline Data Entry

Audit data entry goes from 1 hr. 40 min. to 1 hr. 5 min. - almost cut in half!!!

HUGE INCREASE IN PRODUCTIVITY!
"The combined power of a group of things when they are working together that is greater than the total power achieved by each working separately."

- Expanding with less resources (staff), streamlining data entry allows more customers thru the program = more revenue $$

- Auditors spend less time with audit data entry to do more customer service, higher conversion rate = more revenue $$

MORE REVENUE = SUSTAINABLE PROGRAM
Hurdles Still to Overcome

- Build bridge between Salesforce & CAKE
- Work on bridge between CAKE & Efficiency VT
- Currently building bridge between website form and Salesforce (ready by Summer 2016)
- Investigate LEAN principles and implement to streamline program further
Thank You
The Heat Squad **reduced cost and increased capacity** in three steps:

1. **Identify your struggle:** the intake process for new customers was time consuming and required manual, duplicative data entry.
   - Look for instances in your process where *actions are being repeated* or *processes are being conducted manually* when technology exists to automate.

2. **Develop a strategy:** NWWVT resolved the struggle, multiple data entry, with a technical solution, a streamlined data entry process.
   - Think about whether or not your identified struggle is *technical* (e.g. a software solution exists) or *adaptive* (e.g. changing the workplace culture).

3. **Aim for synergy:** by building bridges from one customer relationship management (CRM) software to multiple systems, NWWVT minimized personnel time and error from manual entry.
   - Identify *other processes to streamline* using the same solution. (e.g. CRM software can reduce data entry not only for intake, but also for audits)
Best Practices: Tennessee Valley Authority
eScore: REMOVING BARRIERS TO COST EFFECTIVENESS

Frank Rapley
Tennessee Valley Authority
About TVA

Nation’s largest public utility

Cover 80,000 square miles and 9 million people

154 local power companies
Engage residents past ‘one and done’
Eliminate pre-evaluation barrier
Reduce paperwork
Simplify reporting
Improve value proposition for contractors
Increase transparency
Reduce cost of delivery
How did we do it?

Process

- Implemented Pilot Program
- Redesigned Program
- Conducted Qualitative Research with Stakeholders
- Analyzed Data
- Benchmarked Program Best Practices
Each user group has an individual experience

User support

Tracking and reporting tools

eScore Portal
eScorecard

- Highly personalized
- Easy to understand 1-10 scoring
- eScorecard updates after upgrades are made

**YOUR PATH TO A 10**

- **Air Sealing:** Stay cool in summer and warm in winter by closing the places where air leaks in or out
- **Attic Insulation:** Keep warm or cool air from escaping through your roof by adding more attic insulation
- **Duct Systems:** Close the gaps in your ducts to get the most for your energy dollars
- **Lighting:** Replace your old incandescent bulbs with energy saving CFL or LED bulbs
- **Heating / Cooling Systems:** When your old system needs replacing, buy equipment that meets the ENERGY STAR® standard
- **Appliances / Electronics:** Replace old appliances and electronics with ENERGY STAR® certified equipment
- **Water Heating:** Lower your water heating costs by installing a super-efficient ENERGY STAR® certified unit
- **Refrigerators:** Replace your old refrigerator with an ENERGY STAR® certified model and save up to 30%
- **Windows & Doors:** Look for the ENERGY STAR® label when replacing your doors or windows

**GREAT JOB – FINISHED PROJECTS**

- **Wall Insulation:** When remodeling your home, add insulation to your walls for more comfort and higher energy savings

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**HOMEOWNER**

- Nelson Residence
- 1237 Nelson Grove Rd
- Memphis, TN 38112

**ADVISOR**

- Local Power Company
- Local Address
- City, State, Zipcode
Online portal eliminates need for paperwork

Energy Advisors use tablet / phablet during audit

Self Audit app in iTunes and Google Play store

Includes photos of actual home and easy tips

eScore Technology
Cost-Reduction Design Elements

- Contractor path removes pre-evaluation barrier, resulting in fewer truck rolls
- Retail partnership drives volume to achieve economies of scale

- Paperless
- Platform allows for streamlined tracking, reporting and rebate payments

- Personalized and action-oriented scoring system makes eScore user friendly
- Customers engage eScore at their own pace
Results

45% increased field capacity
38% reduced rebate per upgrade
31% increased customer spending
25% increased installations
83% decreased call intake
80% fewer incomplete applications
76% less processing time
90% contractor driven

Voice of Customer (152 utilities) at 92%
Customer Sat. (advisor) at 4.9 of 5
Customer Sat. (contractor) at 4.6 of 5
Results

35 GWh
Savings

- 28,000 eScores
- 560 Contractors
- 15,000 Self-Audits
- $138M Customer Spending
- 153 Utilities
- 35,000 Upgrades
Presentation Highlights: TVA

- To improve the process, TVA conducted:
  - **Quantitative Reviews:** analyzed existing data to identify duplicative processes and unnecessary collection fields.
  - **Qualitative Reviews:** interviewed contractors, administrators, advisors, and local power companies to identify “pain points.”
- Both **technology solutions** and **process improvements** helped reduce cost and time.
  - **Paperless from start to finish:** As contractors conduct an audit, the information collected auto-transfers to their eScore database.
  - **Focused on the customer:** The process was redesigned to provide multiple onramps to participate: self audit, kiosk in home improvement stores, and contractor sign-up.
  - As the program became more streamlined, TVA reduced costs, paid less in rebates and observed an increase in customer spending on jobs.
Related Resources in the Residential Program Solution Center

Resources related to lowering costs of delivering energy efficiency:

- **Program Design & Customer Experience – Assess & Improve Processes** handbook discusses how to improve your program’s efficiency and effectiveness through regular information collection, assessment, adaptation, and communication.

- The **HPXML Implementation Guide** helps program administrators and software developers integrate HPXML into their operations and products thereby improving efficiency and lowering costs.

- **Data Exchange Specifications** Quick Link provides resources about how standard specifications reduce costs by eliminating the need to develop a data transfer protocol each time you transfer information.

- Be sure to see the **Proven Practices** post on **Evaluating Residential Program Success**.

- The Solution Center is continually updated to support residential energy efficiency programs—**member ideas are wanted**!
Discussion Highlights

- Technology does not necessarily improve processes:
  - Using technology on a flawed or duplicative process will result in the same flaws and duplications being automated.
  - Technology solutions can come with large upfront cost; analyze your process to see if solutions can fix multiple problems.

- As you work towards lowering cost, make sure that process changes do not compromise customer satisfaction:
  - Build feedback loops (e.g. email surveys, calls, etc.) into the program to maintain quality.
  - If your program is a hassle for customers, even with substantive rebates or assistance, people will be reluctant to participate.

- Build a culture of continuous improvement to continue to evaluate your program and processes for areas to further streamline, and lower costs.
Closing Poll

- After today's call, what will you do?
  - Seek out additional information on one or more of the ideas – 68%
  - Consider implementing one or more of the ideas discussed – 21%
  - Make no changes to your current approach – 11%
  - Other (please explain) – 0%
Peer Exchange Call Series

*We hold one Peer Exchange call the first four Thursdays of each month 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:**
- July 7: It’s Getting Hot in Here! Best Practices for Hot and Humid Climates (101)
- July 14: Innovation Station: The Latest Advances in Energy Efficiency Technology (301)
- July 21: The Return of Residential PACE – the Sequel (201)
- July 28: Trade Talk: Best Practices for Fostering and Using Contractor Networks (101)

*Send call topic ideas to peerexchange@rossstrategic.com*

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