

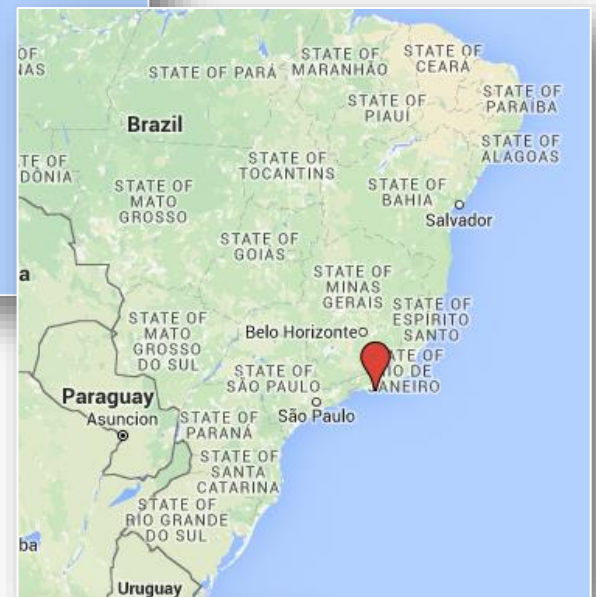


# **Better Buildings Residential Network Peer Exchange Call Series: *Five and Dime: Revisiting Strategies for Lowering the Costs of Delivering Energy Efficiency (101)***

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

# 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
- Onatrio 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

**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](https://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

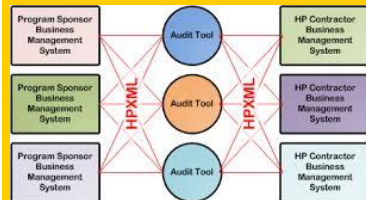
- Implement Home Performance XML data standard and other process improvements in home upgrade programs



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





# 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





# Our Struggle-Strategy-Synergy



- **Struggle** of multiple data entry
- **Strategy** to streamline data entry
- **Synergy** of the overall program



# Struggle: Multiple Data Entry



**Lori spends 45 min. processing (1) audit intake... CRAZY!**





# Struggle: Multiple Data Entry

## Audit



CAKE SYSTEMS™

Efficiency  
Vermont

1 hr.

40 min.

Corey spends almost 2 hr. submitting (1) audit.....

**CRAZY!**



# Strategy: Streamline Data Entry



## Intake



**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



1 hr.



CAKE SYSTEMS™



\*5 min.

Efficiency  
Vermont

\*Thru API data transfer

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

**HUGE INCREASE IN PRODUCTIVITY!**



# Synergy: Overall Program

***“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.”*** -Cambridge Dictionaries Online

- 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

# Presentation Highlights: NWWVT

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





Cover **80,000 square miles** and **9 million** people

## 154 local power companies





## Strategic Goals of Redesign



**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?



## Multiple Onramps

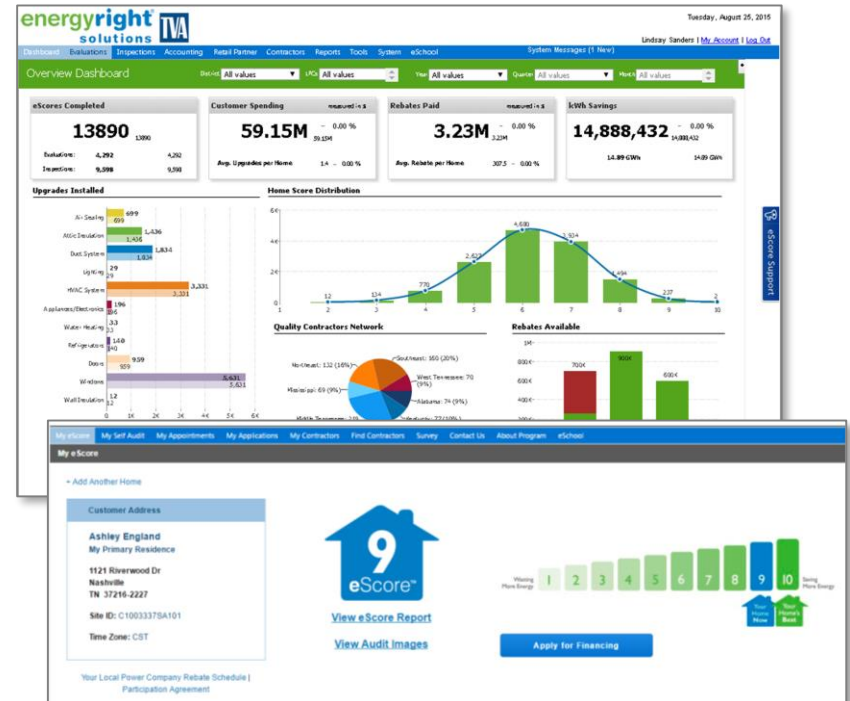


# eScore Portal

Each user group has an individual experience

User support

Tracking and reporting tools





# eScorecard

Highly  
personalized

Easy to  
understand  
1-10 scoring

eScorecard  
updates  
after upgrades  
are made





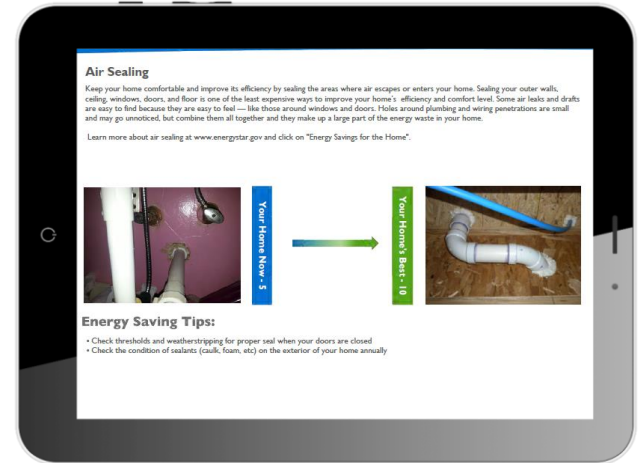
# eScore Technology

Online portal eliminates need for paperwork

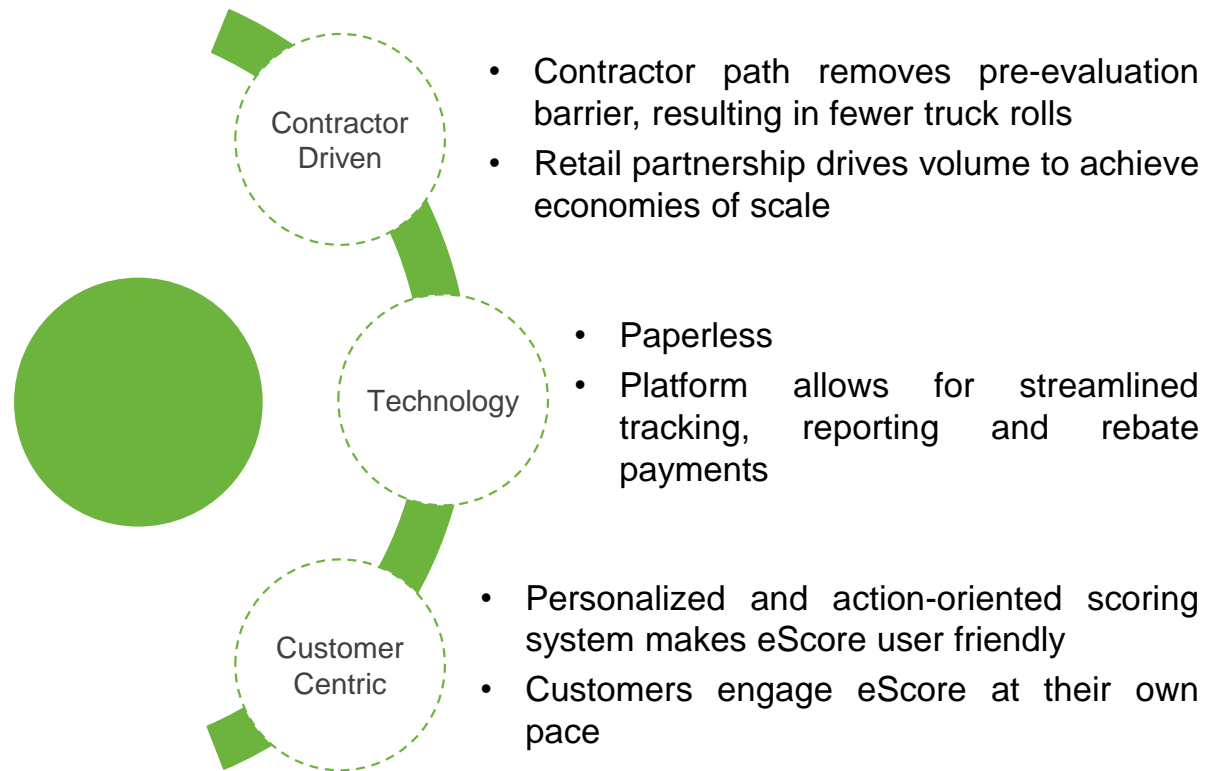
Energy Advisors use tablet / phablet during audit

Self Audit app in iTunes and Google Play store

Includes photos of actual home and easy tips



## Cost-Reduction Design Elements



## 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

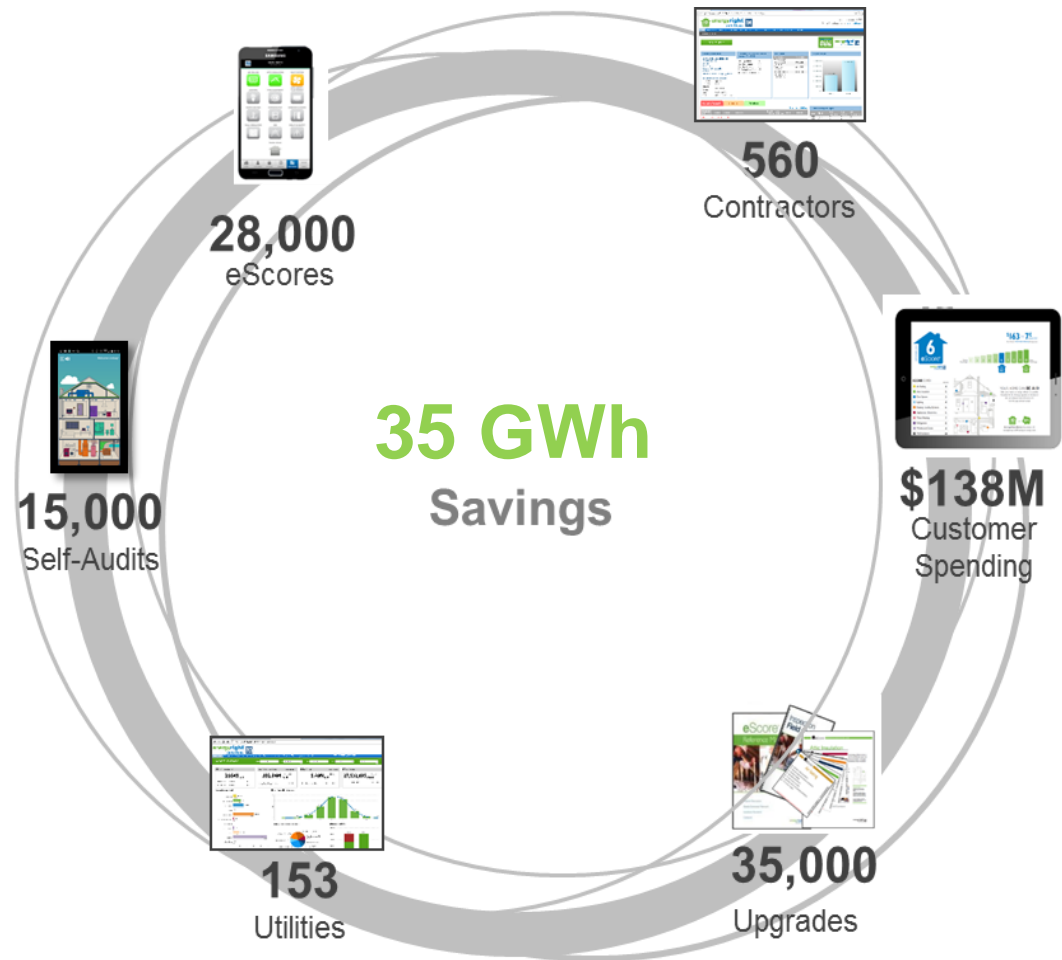
**90%** contractor driven

Voice of Customer (152 utilities) at **92%**

Customer Sat. (advisor) at **4.9 of 5**

Customer Sat. (contractor) at **4.6 of 5**

# Results



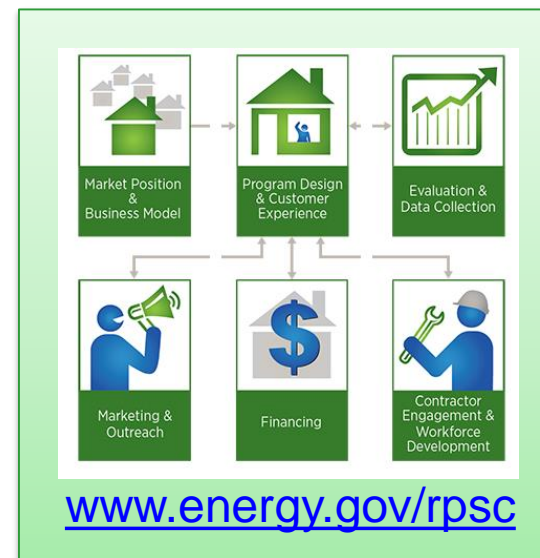
# Presentation Highlights: TVA

- 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](mailto:peerexchange@rossstrategic.com)*

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