



**Better Buildings Residential Network Peer  
Exchange Call Series:  
Baby It's Cold Outside: Best Practices for  
Chilly Climes (101)**

November 5, 2015

*Call Slides and Discussion Summary*

# Call Participants: Residential Network Members

- Alaska Housing Finance Corporation
- Center for Sustainable Energy
- City & County of Denver, Colorado
- CLEAResult
- Efficiency Maine
- Energize New York
- Energy Conservation Works
- Institute for Market Transformation
- Horizon Residential Energy Services NH, LLC
- Institute for Market Transformation
- Stewards of Affordable Housing for the Future
- The Oberlin Project
- TRC Energy Services
- Wisconsin Energy Conservation Corporation

# Call Participants: Non-Network Members

- Artisan Homes
- Aspen Community Office for Resource Efficiency
- BlueGreen Alliance
- Building Envelope Materials
- Cambridge Energy Alliance
- Conservation Connection Consulting
- Energy Programs Consortium
- Gary Gray & Associates
- Holland Michigan Board of Public Works
- Holy Cross Energy
- La Plata Electric Association
- Maryland Department of Transportation
- North Slope Borough
- New York Housing Preservation & Development
- Socioeconomic Data & Applications Center
- Sustainability Institute at Molloy College
- The Brendle Group



# Agenda

- Agenda Review and Ground Rules
- Opening Poll
- Brief Residential Network Overview
- Featured Speakers
  - **Andy Meyer**, Residential Program Manager, [Efficiency Maine](#) (*Network member*)
  - **Scott Waterman**, Energy Specialist II, [Alaska Housing Finance Corporation](#) (*Network member*)
- Discussion
  - Are there other examples of best practices for working in cold climates?
  - What challenges does your program encounter during the cold season?
  - What strategies can help mitigate seasonal challenges?
  - How has your program leveraged (or considered leveraging) cold weather to market energy assessments and upgrades?
  - Other questions or issues related to energy efficiency in cold climates?
- Closing Poll and Upcoming Call Schedule

# Opening Poll

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

- Some experience/familiarity – **38%**
- Limited experience/familiarity – **38%**
- Very experienced/familiar – **25%**
- No experience/familiarity – **0%**
- Not applicable – **0%**

# 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](mailto:bbresidentialnetwork@ee.doe.gov)*

**Program Experience:**  
**Efficiency Maine (*Network Member*)**  
Andy Meyer, Residential Program Manager



# Efficiency Maine Energy Efficiency Programs in Cold Climates

US DOE Better Buildings Residential Network Peer Exchange Program

11/5/2015

# Efficiency Maine Experience

#	Time Period	Homes	Measures	Average Job
1	2010-2011	3,000	Custom	\$9,000
2	2012-2013	8,000	Air seal & assessment	\$800
3	2014-2015	15,000	Prescriptive (10,000 heat pumps)	\$5,000
4	5-Year Total	26,000		

# Cold Climate Challenges

- Seasonality
  - Customer interest level
  - Customer topics of interest
  - Installer capacity
- Fuel Price Volatility



# Lessons Learned (the hard way)

1. Pay for upgrades, not audits
2. Prioritize rebates over financing
3. Offer prescriptive rebates when possible
4. Allow incremental upgrades over time
5. Don't force disparate trades together



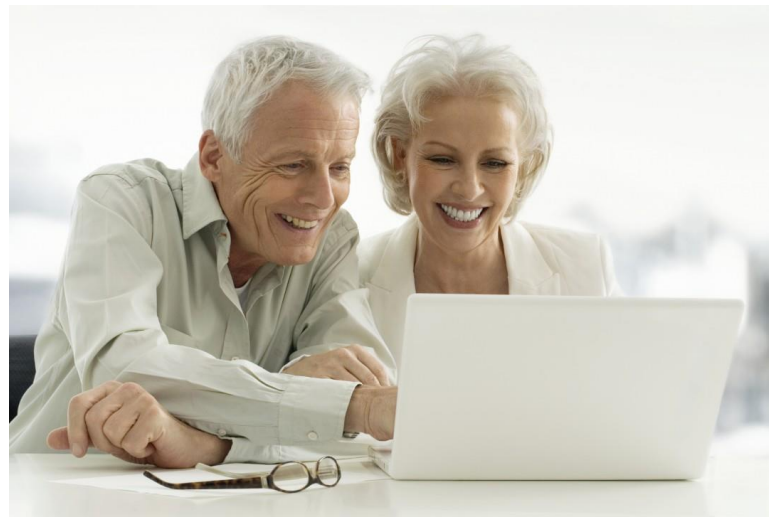
# Best Practices



1. Focus on customer benefits (e.g., comfort, control of costs)
2. Focus Calendar
  - Multiple segments, channels, and touches
  - One reinforced message per season
3. Drive Demand For Non-Peak Season
  - Use seasonal urgency to book schedules right through slow season
4. LBNL Driving Demand ([drivingdemand.lbl.gov](http://drivingdemand.lbl.gov))
  - Sell, tailor msg to target segment, trusted messengers, language matters, support best contractors, one touch is not enough, keep it simple, measure/adjust (continuous improvement)

# Web Tools

1. Vendor locator
2. Quick home assessment
3. Compare heating costs
4. Compare water heating costs



# The End

Andy Meyer  
Residential Program Manager  
Efficiency Maine

**Lessons Learned:**  
**Alaska Housing Finance Corporation**  
***(Network Member)***  
**Scott Waterman, Energy Specialist II**



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# US DOE Better Buildings Residential Network

## It's Cold Outside – Best Practices for Chilly Climes

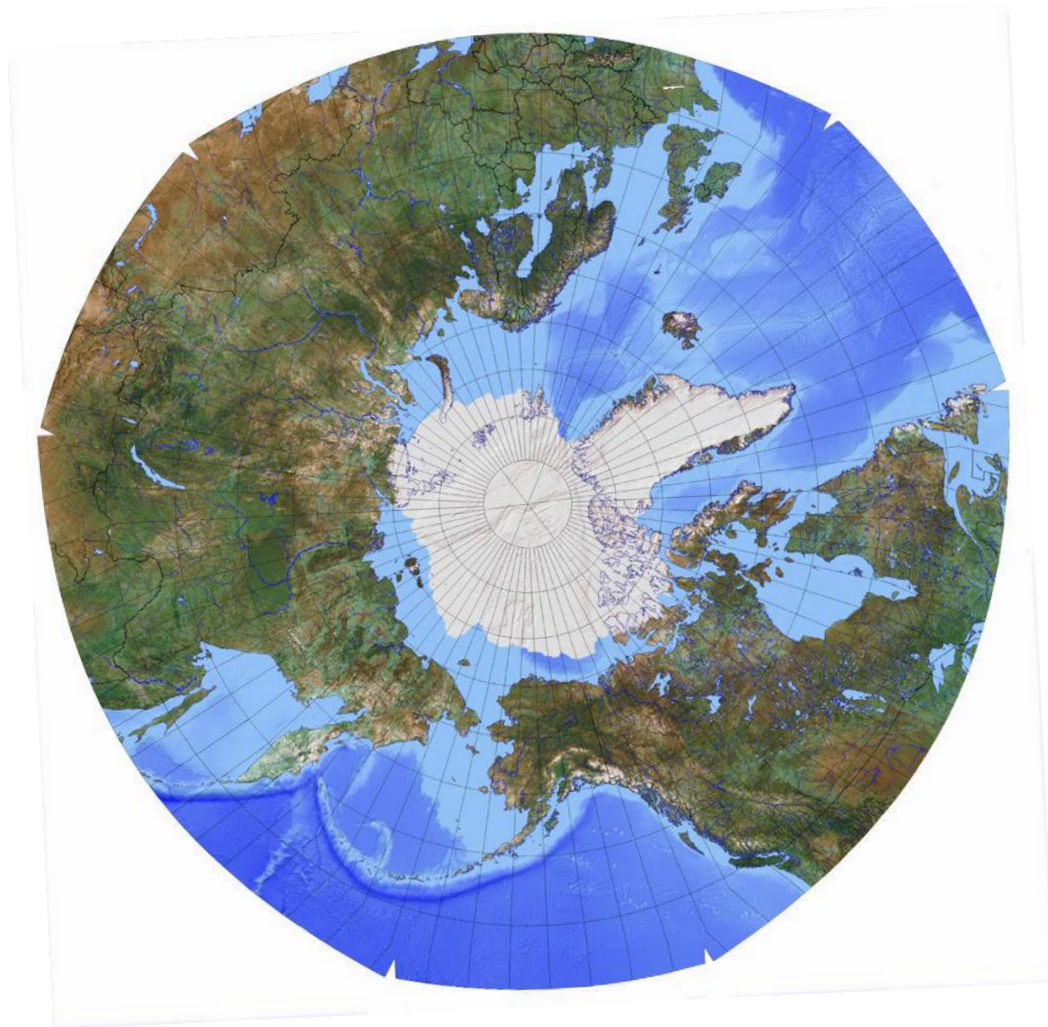
November 5, 2015

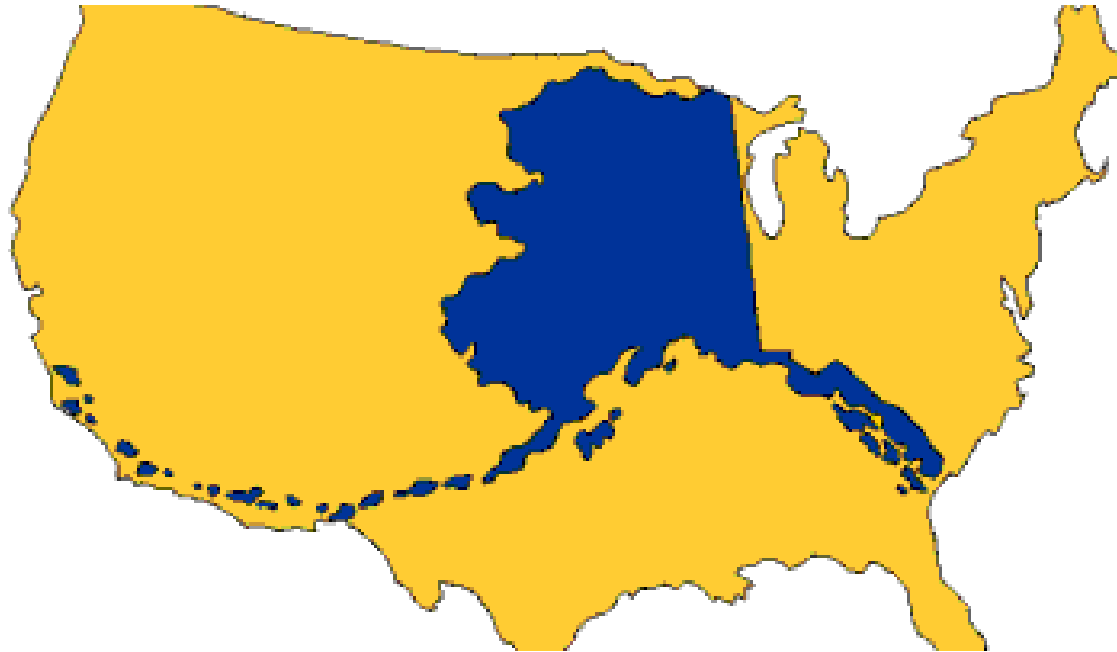
Scott Waterman

Rural Research Development Division

# Challenges

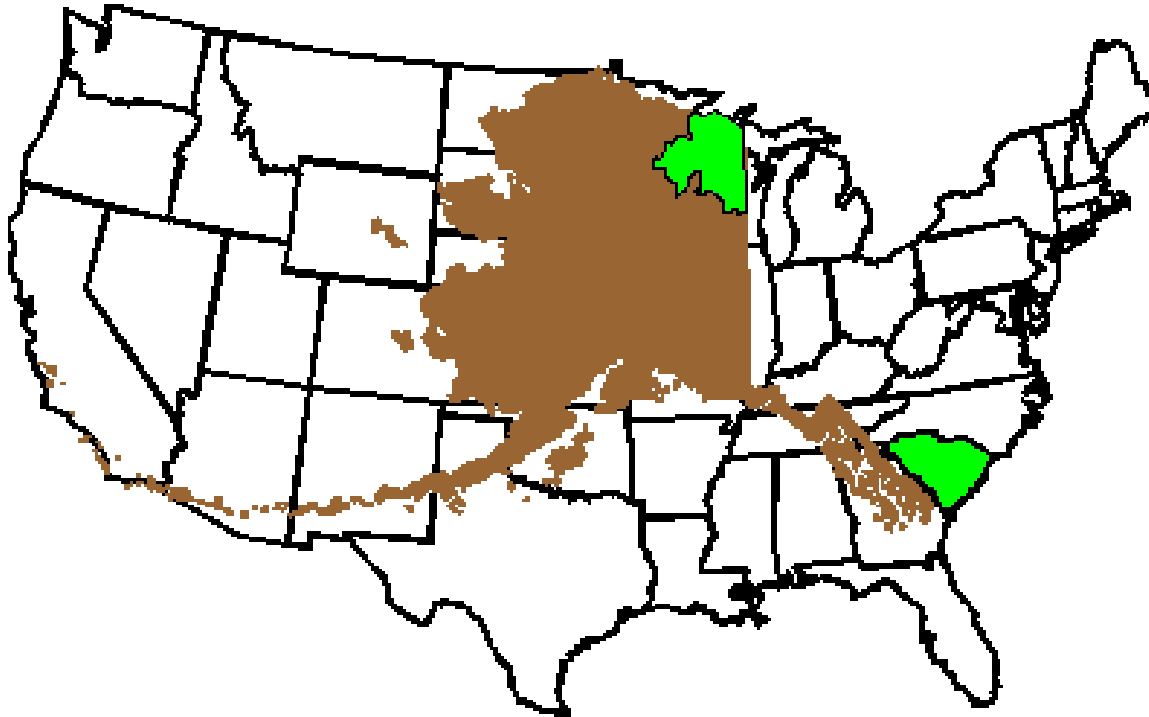
- 7000 – 20,000 HDD
- 54° to 72° North
- 130° - 180° West
- 178° - 180° East
- 570,641 Sq. Miles
- 1.3 people per sq. mile





## **Big Place – Cold and Dark**

Many roadless communities



**Arctic National Wildlife Refuge – South Carolina**



**4 climate zones**



## **Travel can be challenging**

Few Roads – Many miles



**And what roads we have can be a bit rough**



## **Barge transport**

High construction costs (freight can be more than \$1.00/lb)





**Huge Opportunities**



## Harsh Climate

# Homes that need improvement

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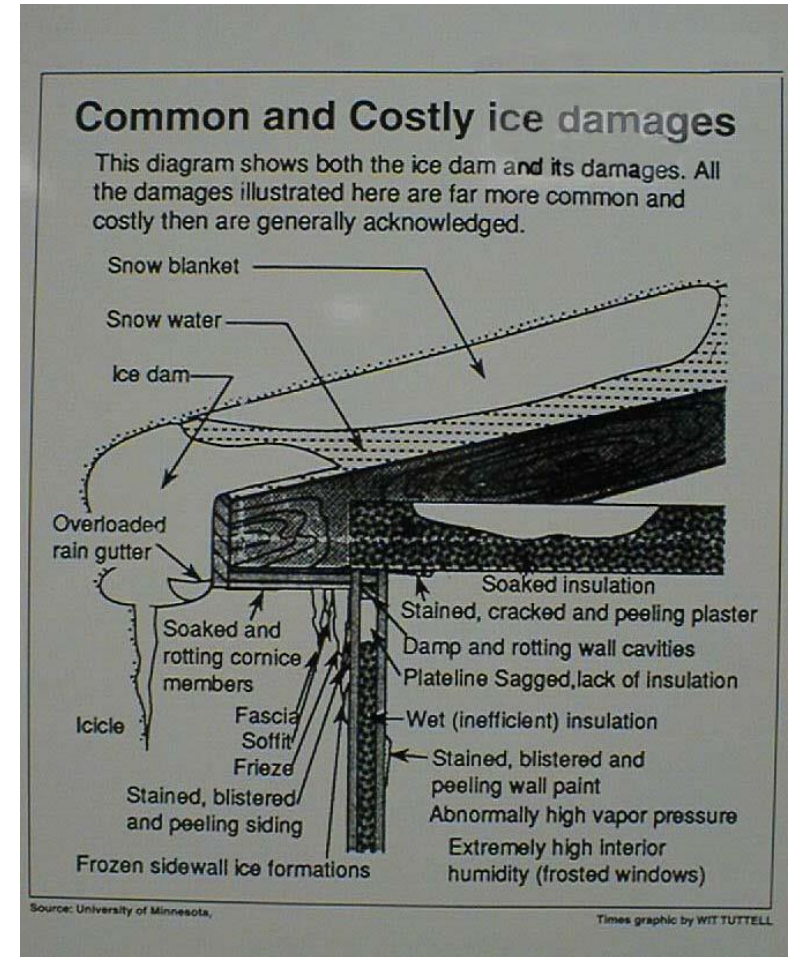
# Backdrafting



# Alaska Has Snow and Ice



# Anatomy of an Ice Dam





# On the inside as well



# Implementation



**Our planners hard at work**



## Resources



**What is it? How do we read this?**

We all need education



**Skilled Crews - Doing it Right**



## **Requirements for Cold Climate Homebuilding and CEU for Builders Residential Endorsement**

# Lessons Learned



**Don't poke a hungry Grizzly**



**Always have some new ideas in your back pocket – you never know when they will be useful**





**Be prepared for some strange twists**

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## Success

- Comprehensive database and analysis capability
- 42,000 homes retrofitted since 2008 (16% of total)
- Over 100,000 distinct address energy ratings since 1996
- 30% energy savings on average
- \$62 million annual savings to state economy
- 20,000 people through EE education
- AK Energy Smart

# Make our Homes

- Safe and Healthy
  - Comfortable
  - Durable
  - Affordable
  - Environmentally responsible
-

# Residential Program Solution Center Tailored Resource Links

Understanding the climate your program is working in is key to making decisions about program design and marketing and outreach strategies.

- The [Residential Retrofit Program Design Guide](#), a key resource of the [Program Design & Customer Experience](#) component, contains information on page 8 about how a program should consider climate when characterizing the market.
- Find step-by-step information and tips for success for how to assess the market and make decisions about Program Design [here](#).
- As the cold sets in, the Solution Center also has [tips for how to manage seasonal fluctuations](#) when working with contractors.



[www.energy.gov/rpsc](http://www.energy.gov/rpsc)

While you are there, see the latest Proven Practices post on [Tiered Financing](#).

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

# Residential Program Solution Center Navigational Example

**Better Buildings Residential Program Solution Center**

EERE » BTO » Better Buildings Neighborhood Program » Solution Center Home »

Solution Center Home

About

- Getting Started
- How to Submit Content

Handbook Index

Quick Links

Proven Practices

Energy Data Facts

Glossary

BROWSE BY:

Program Components

Program Design Phases

Content Types

ADMIN MENU

Content Manager

Add Content

User Data

**Better Buildings**  
U.S. DEPARTMENT OF ENERGY

**Explore the Solution Center**

Keep the program simple for customers and contractors.

Foster "word of mouth" communication from early adopters.

Recognize good contractor performance.

Consider tiered financing to encourage deeper upgrades.

**Learn from Successful Programs**

Tips for Success provide a compilation of lessons learned, related to the planning, implementation, and evaluation of residential energy efficiency programs.

**MY FAVORITES**

- Finance Favorites (7 items)
- Getting Started (2 items)
- New Favorites Folder

**THIS MONTH'S SHORTCUTS**

- What messages should we use to reach potential customers?
- How do I develop the right program design for my customers?
- What standards and contractor requirements would be useful for my program?

**PROVEN PRACTICES**

**Better Buildings**  
U.S. DEPARTMENT OF ENERGY

Offer tiered financing for homeowners

Tell me more

Put this widget on your website

**RECENTLY UPDATED RESOURCES**

Capturing Energy Efficiency in Residential Real Estate Transactions: Steps That Energy Efficiency Programs Can Take (p72 KB)

Description Step-by-Step Tips for Success Examples Toolbox Topical Resources

## Tips for Success

In recent years, hundreds of communities have been working to promote home energy upgrades through programs such as the Better Buildings Neighborhood Program, Home Performance with ENERGY STAR, utility-sponsored programs, and others. The following tips present the top lessons these programs have learned related to this handbook. This list is not exhaustive.

[Expand All](#)

- Adapt messages to your primary target audience's needs
- Partner with organizations or individuals that customers already trust
- Foster "word of mouth" communication from early adopters
- Language matters – use words that resonate with your target audience
- Motivate
- Conduct
- Communicate
- Follow
- Make
- Provide

**Adapt messages to your primary target audience's needs**

Many programs found that market research can help identify, segment, and characterize audiences to understand how to prioritize them. Consider prioritizing audiences based on parameters such as demographics, values, housing type, fuel source, potential for savings, common problems with homes, property ownership structure, or program entry point (e.g., remodeling opportunities). For a starting place, look online for existing market segmentation data (e.g., municipal records, Zillow, a Nielsen segmentation system called PRIZM, U.S. Census Bureau).

**In Their Own Words: Benefits of Market Segmentation**

Source: U.S. Department of Energy, 2012.

# Discussion Questions

- Are there other examples of best practices for working in cold climates?
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# Presentation Highlights: Efficiency Maine

- Winter is peak season in cold climates as ice dams are a big driver of demand; springtime basement flooding bumps demand as well.
  - Plan for this seasonality with a pre-winter marketing blast.
  - Customize marketing for the season to help drive demand for non-peak season.
  - Contractors can schedule work a few months in advance into the non-peak season, booking out as far as possible while demand is still high.
- Focus on warmth and home comfort, the true motivators in cold climates.
- A web tool gives homeowners a very rough estimate of their energy costs compared to the average home.

# Presentation Highlights: Alaska HFC

- Significant cold and wind means lots of homes that could really benefit from efficiency upgrades
- AHFC used ARRA funds to train over 20,000 civic leaders, building owners, and others to improve EE literacy among engineers, architects, electricians, plumbers, etc.
- Licensure requirements mandate that contractors learn about cold climate home building
- A weatherization program has now served almost every Alaskan community in the last eight years, even rural areas.



# Closing Poll

After today's call, what will you do?

- Seek out additional information on one or more of the ideas – **100%**
- Consider implementing one or more of the ideas discussed – **0%**
- Make no changes to your current approach – **0%**
- Other (please explain) – **0%**

# Peer Exchange Call Series

*Peer Exchange Calls are held (nearly) every Thursday, 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:

- *No call November 26 – Thanksgiving*
- **December 3:** Shark Tank: Residential Energy Efficiency Edition – Episode 2 (301)
- **December 10:** Capitalizing on Multi-benefits of Energy Upgrades at Multifamily Housing (301)
- *No calls December 11-31 – Winter Break, see you in 2016!*

Send call topic ideas to [peerexchange@rossstrategic.com](mailto:peerexchange@rossstrategic.com)

# Thank you!

Please send any follow-up questions or future call topic ideas to:  
[peerexchange@rossstrategic.com](mailto:peerexchange@rossstrategic.com)