



# **Better Buildings Residential Network Peer Exchange Call Series: *Diversifying Funding Sources and Building New Revenue Streams (201)***

November 17, 2016

*Call Slides and Discussion Summary*

# Agenda

- Agenda Review and Ground Rules
- Opening Polls
- Brief Residential Network Overview
- Featured Speakers
  - **Kerry O'Neill**, Managing Director, Residential Programs, Connecticut Green Bank (*Network Member*)
  - **Andy Frank**, Founder & President, Sealed
  - **Desiree Sideroff**, Vice President Product Manager, Craft3
- Discussion
  - In what ways has your organization diversified and/or grown new revenue streams?
  - What types of financing approaches have you used to make your resources stretch further and help homeowners finance upgrades?
  - What are key considerations when designing and administering financing programs for home performance programs?
  - Other questions about funding, revenue, or financing strategies?
- Closing Poll and Upcoming Call Schedule

# 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), or go to [energy.gov/eere/bbrn](http://energy.gov/eere/bbrn) and click Join*

# Best Practices: Connecticut Green Bank

# Public-Private Partnership Models for Residential Financing

DOE Better Buildings Residential Network Peer  
Exchange Call:

Diversifying Funding Sources and Building New  
Revenue Streams (201)

November 17, 2016

# Sparking a Movement

Green Banks are quickly spreading across U.S.



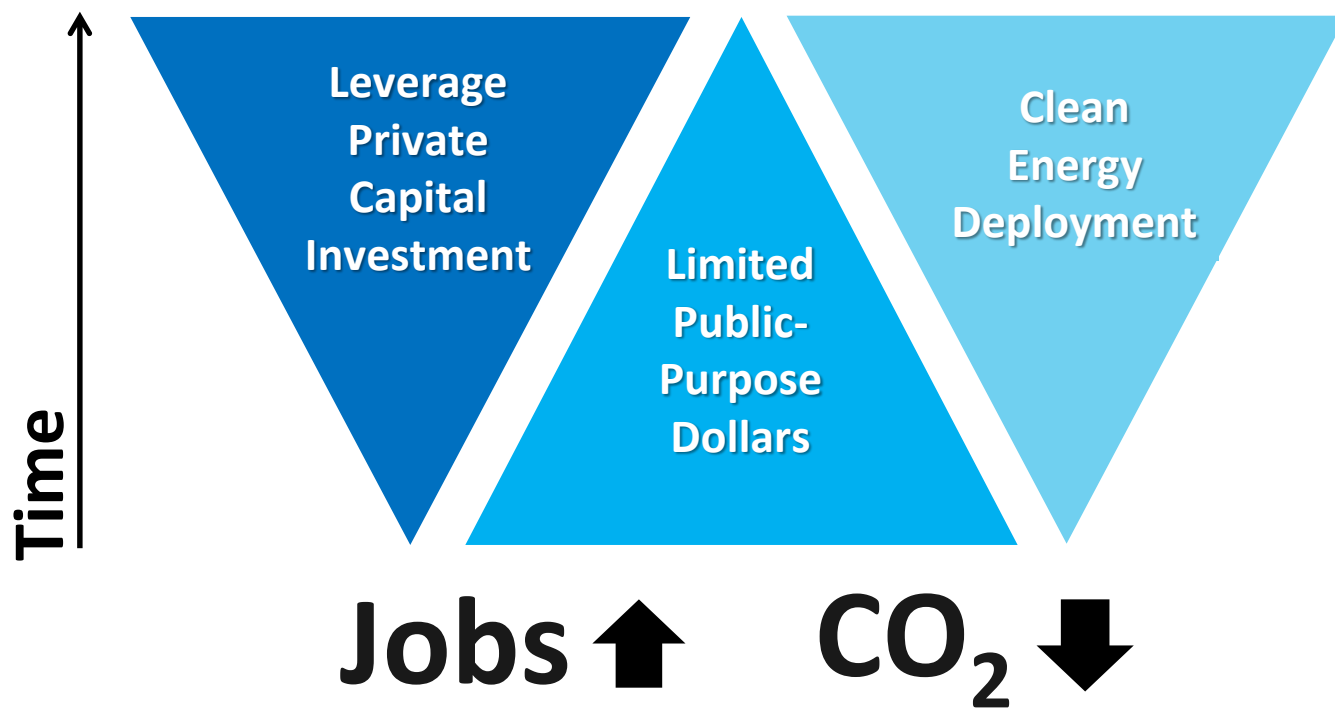
## *Green Banks Operating Or Under Development/Consideration*



# Solution Blueprint

## About the Connecticut Green Bank – Model and Role

- The quasi-public model leverages the power of markets to advance policy goals and create a social good.
- The role of a green bank is simple; attract and deploy private capital investment in cleaner and more reliable sources of energy so that *clean energy* is more accessible and affordable to consumers



# Solution Blueprint

Getting Results... Inception to Date



	FY 2000- FY 2011 (CCEF)	FY 2012- FY 2016 (CGB) <sup>1</sup>	FY 2017 Targets (CGB) <sup>2</sup>
<b>Model</b>	Subsidy	Financing	Financing
<b>Years</b>	11.00	5.00	1.00
<b>Energy (MW)</b>	43.1	193.8	86.4
<b>Investment (\$MM)</b>	\$349.2	\$936.9	\$393.7
<b>Leverage Ratio</b>	1:1	6:1	10:1
<b>% of Funds as Loans</b>	10	56	80

Deploying **more** green energy at a **faster** pace while using ratepayer-taxpayer resources **responsibly**

## REFERENCES

1. Comprehensive Annual Financial Report for FY 2015 for approved, closed, and completed transactions
2. Board approved targets for FY 2017

# Smart-E Loan for Homeowners

## ~\$30 MM Loan Capital Available



**smart-e loan**

**energize**   
CONNECTICUT

[www.energizect.com/smart-e](http://www.energizect.com/smart-e)

- **Rates** – 4.49% to 6.99% & special offers (2.99%), unsecured lending
- **Terms** – 5 to 12 years
- **Amount** – \$500 to \$40,000
- **Underwriting** – 640 FICO or above, 40-45% DTI; CDFI at 580+ FICO and 50% DTI waived for >680 FICO)
- **Measures** – predominantly HVAC, hot water, and solar PV... and supports healthy home too
- **Contractors** – over 300 eligible
- **Lenders** – 4 credit unions, 6 community banks, 1 CDFI
- **Credit Support** – \$1.8 MM 2<sup>nd</sup> loan loss reserve to attract ~\$30 MM of loan capital; \$2.5 MM interest rate buy-down program

# Solar PV Lease + EE

Low-to-Moderate Income Homeowners

PosiGen Co-investment: \$15 - \$20 million fund

## Home

(New Haven – Oil Heat)



\$59,250 HHI  
High Energy Costs

**High  
Energy Burden**



## Solar PV (Lease)



\$55 to \$100/month Lease  
Solar \$ Savings

**Moderate  
Energy Burden**



## Energy Efficiency (ESA)



\$10/month ESA  
Energy Savings  
<<Additional Savings>>  
**Solar + EE \$ savings**



**Reasonable  
Energy Burden**

# Lessons Learned

- **Generating customer demand is biggest challenge** – not financing!
  - We’ve got all kinds of financing options available, still hard to drive uptake. In Multifamily space, technical assistance is critical.
- **Know your market** – what customer segment, building stock, energy upgrades are you trying to address? Tailor product design to that.
- **Leverage channel strategies** – contractors (by type! Insulation companies aren’t same as HVAC as solar, etc.), lenders, municipalities, nonprofits, housing authorities, utilities
  - **Corollary... Don’t go it alone, need origination channels!**
- **Be sure your products work for contractors** – responsiveness (yours, lending partners), disbursement terms, paperwork requirements
- **Be sure your products work for financing partners** – need to understand their business models
- **Homeowner value prop** – 100% financing, cash flow positive terms are great, but... they’re likely to lock in a shorter term. Don’t stress over not having on-bill – great application/approval process, terms and contractor channel can be just as good.

# Thank You

**Kerry O'Neill**

Managing Director, Residential  
Programs

[www.ctgreenbank.com](http://www.ctgreenbank.com)

# Presentation Highlights: Connecticut Green Bank (CGB)

- Switching from a strictly grant-making model to a **financing and leveraging model helped CGB increase its impact:**
  - **Financing through credit support:** CGB offers a second loan loss reserve (\$1.8 million) to allow local lenders (e.g., credit unions, community development financial institutions) the ability to offer unsecured loans at 4.99% to 6.99% (2.99% for more extensive upgrades).
  - **Bundling incentives and leveraging private capital:** In partnership with solar energy company PosiGen, CGB targets low to moderate income homes:
    - CGB provided \$5 million into the financing structure, which allowed PosiGen to attract private capital and provide a 10-month energy savings lease that includes lighting and other energy upgrades.

# Best Practices: Sealed



# PARTNERING WITH NEW MARKET ACTORS

## PRESENTATION TO DOE PEER EXCHANGE





## Overview

- Sealed a NY-based software company that guarantees energy savings
- Have partnered with the New York Green Bank to offer first true “pay with your savings” program (HomeAdvance)
- HomeAdvance lets customers pay what they actually save instead of fixed payment, with Sealed guaranteeing that performance to the bank
- Partnered with New York utilities (National Grid, Con Edison, Orange & Rockland) to reach customers interested in efficiency improvements (comfort primary driver)
- Providing utilities with new revenue streams from engaging customers on efficiency improvements





## Why Customers care

gtm:

*"The key to customer adoption is not the math. It's fixing a comfort problem inside of the house."*

50% of US homes  
report drafty rooms

Google

why is my house so |

why is my house so **cold**

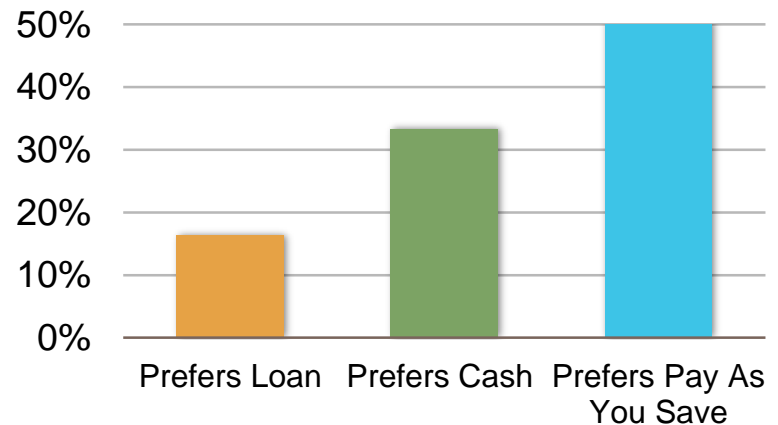
why is my house so **dusty**

why is my house so **humid**

why is my house so **dry**

About 118,000,000 results (0.87 seconds)

Homeowners do not believe "energy savings payback" on cash investment (only believe 25% of savings) and do not want to take out a loan.

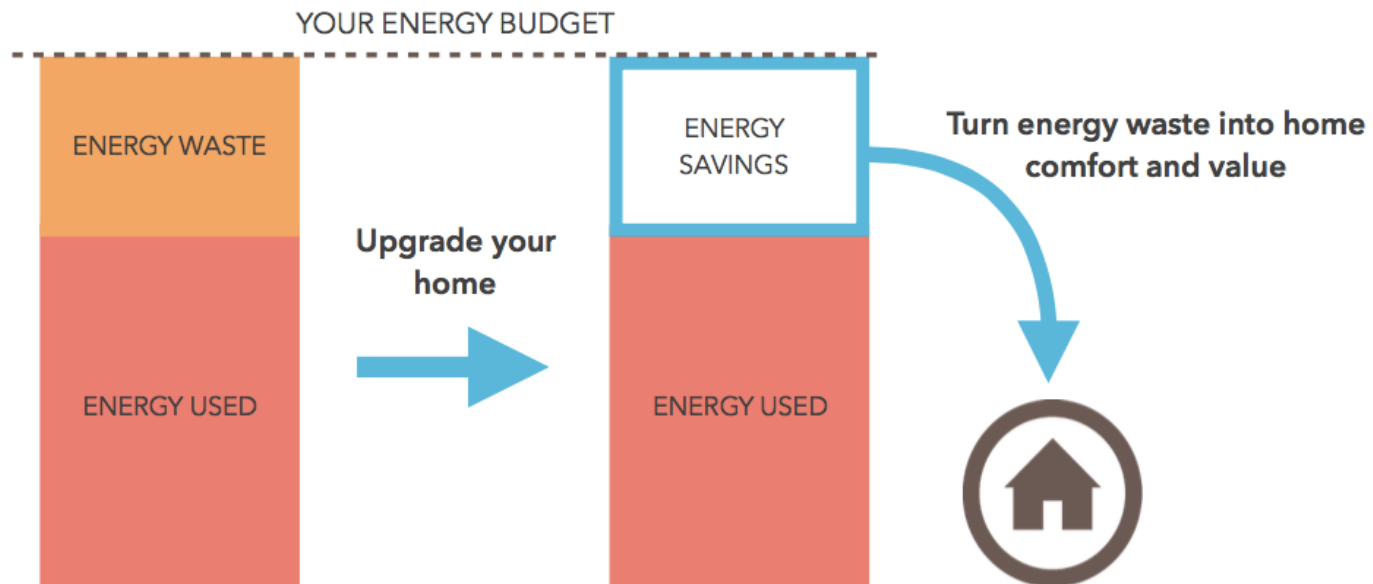




## Customer Value Prop

**A better home at an affordable cost.**  
**Accountability and service for the long haul.**

**Pay less up front and maintain your energy budget while energy savings cover the rest**





## NY Green Bank Partnership

### In partnership with NY Green Bank

Sealed has launched a \$7.5M credit facility to enable customers to adopt residential efficiency projects (e.g. air sealing, insulation, HVAC) paid for up-front by the future energy savings from the projects

*"Sealed is an excellent example of the type of innovative business model that has emerged – and will continue to emerge – as the principles of REV begin to impact the market."*

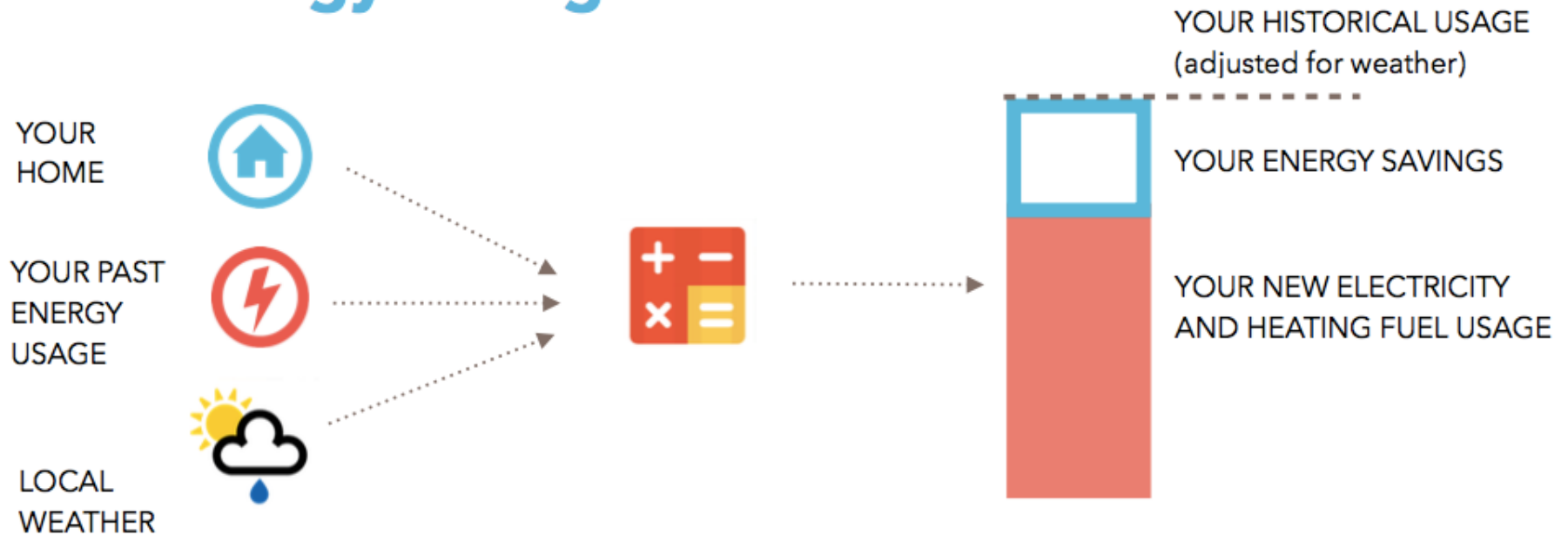
**- NY Green Bank President,  
Alfred Griffin**





## Analytics Enable Guarantee

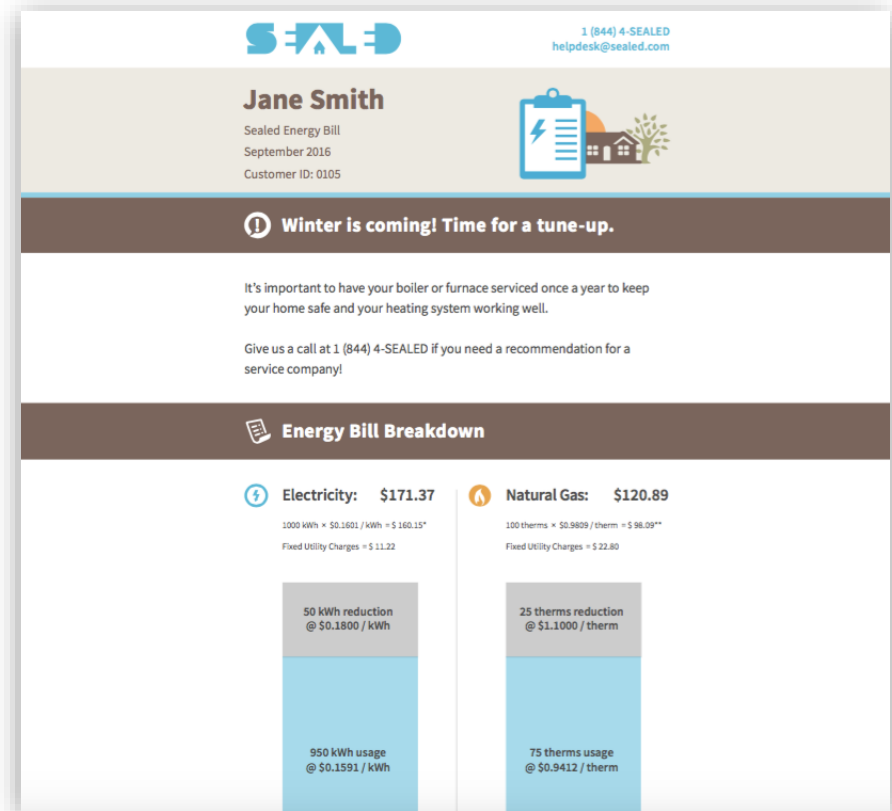
### How energy savings are calculated





# Long-Term Relationship

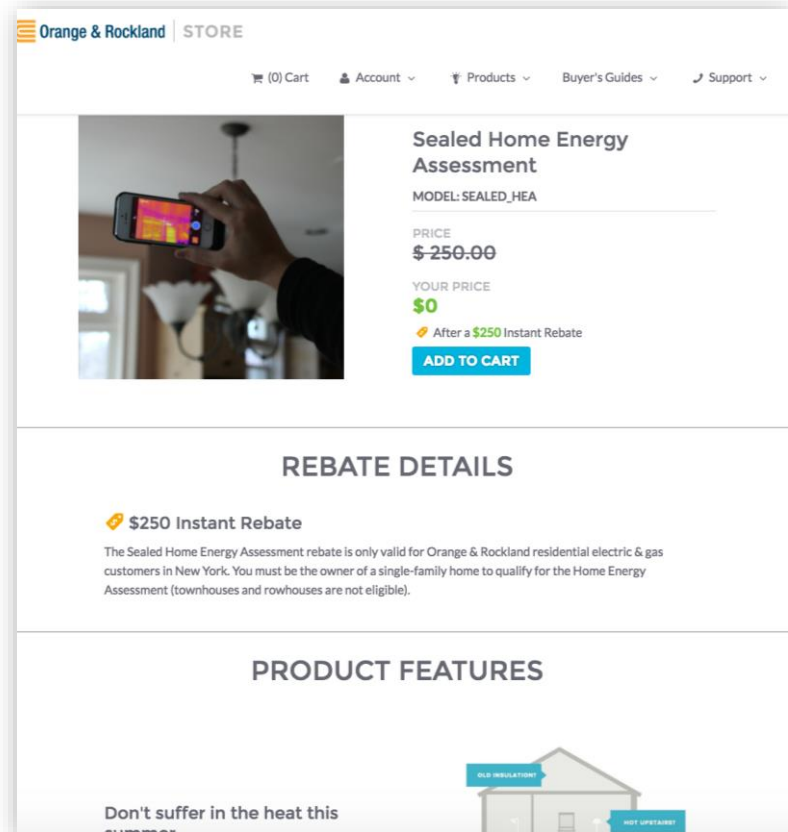
- Customers receive Sealed bill each month, with optional energy bill consolidation
- Sealed bill offers additional recommendations for customers to improve the efficiency of their home
- Sealed can include utility brand and messaging on the Sealed bill
- Sealed continues to invest in the energy savings of future efficiency improvements, lower customers' costs



# Utility Partnerships

Sealed partnering with utilities to drive the market

1. Marketing-based revenue streams for utilities
2. Contractor network development and management
3. Efficiency Procurement partnership to replace rebates with performance-based incentives





# Thank you!

**Contact:** Andy Frank



[www.sealed.com](http://www.sealed.com)

# Presentation Highlights: Sealed

- Homeowners believe about 25% of energy savings that are presented, so **a guarantee to pay with those savings is a powerful proposition.**
  - Together with the New York Green Bank, **Sealed is able to finance the initial cost of the project.**
    - Homeowners maintain a similar energy budget to what they are used to, and **the difference between baseline and energy savings is used to pay for the upgrades.**
- Home with high energy burdens (e.g., heating with oil) provide great opportunities for financing through energy savings, as those savings will result into the largest payback.
- **Partnerships with utilities can open up new revenue streams.** Paying utilities for how much demand they drive to your program to make it an attractive proposition for utilities.

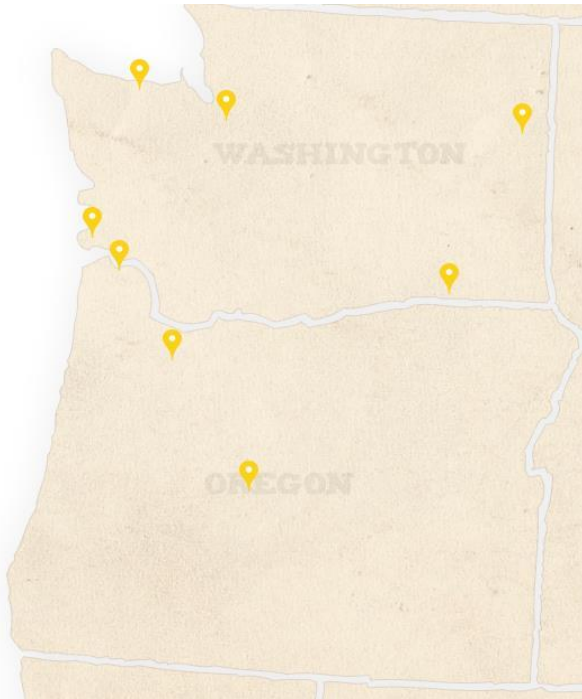
# Best Practices: Craft3

# Financing Energy Efficiency



## Craft3 is a nonprofit that provides loans to entrepreneurs and individuals

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- Since 1994, Craft3 has invested over \$400 million in entrepreneurs, nonprofits and individuals.
- Craft3 loans align with our mission of strengthening economic, ecological and family resilience.
- Loans are available in the urban and rural communities of Oregon and Washington.
- 56 employees are located in 8 regional offices.
- Capital we lend comes from investors, including banks, foundations, governments, and individuals.



## Craft3 works with businesses, nonprofits and individuals in a variety of sectors

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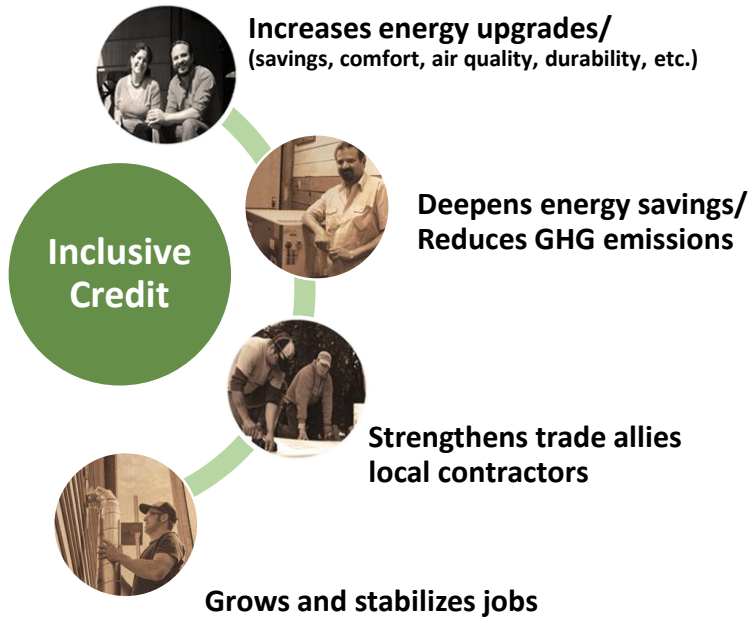


- Clean energy and energy-efficiency
- Manufacturing and value-added processing
- Agriculture and food systems
- Small retail and hospitality
- Essential services
- Land and water conservation/treatment



# Home Energy Loans Overview

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- **Founded in 2009** to expand access to energy efficiency in Oregon and Washington.
- Provides **highly-inclusive financing** to homeowners for energy savings projects.
- Implemented through unique “on-bill” relationship with utilities.
  - 4 utilities in OR/WA, multiple partners/products
  - Utility provides pass-through billing, not financing.
  - Craft3 has no shut-off power; utility charges have priority.
  - One loan payment each billing cycle.



## Historic Home Energy Portfolio

### Oregon and Washington (as of 9/31/16)

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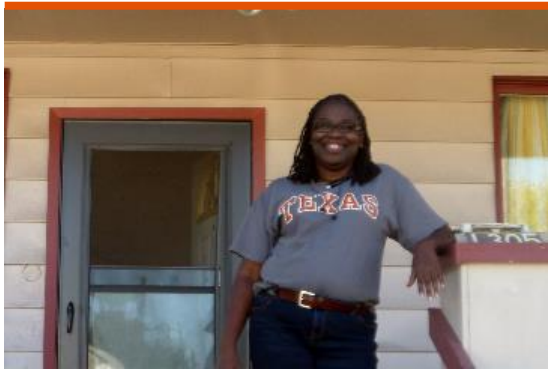


<b>3500</b>	Loans closed
<b>45 million</b>	Dollars lent
<b>9,300</b>	Metric tons of greenhouse gases avoided annually
<b>145,245</b>	MMBTUs saved annually
<b>&gt;20%</b>	Average energy savings/project
<b>&lt;1.5%</b>	Historic losses
<b>20%</b>	Loans to low-income families



# Investing in Home Energy

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## MEETING OUR MISSION

- Low- or moderate-income homeowner
- \$3,550 in rebates and incentives
- 5.6 metric tons of greenhouse gases averted

## Tanya Hillis

Seattle, Washington

- Received a Craft3 Home Energy loan totaling \$13,450 for oil to ductless heat pump conversion, to seal the basement and attic, and insulate the walls and attic of her Central District house built in 1900.
- Borrower leveraged \$3,550 in rebates and incentives for her project.
- Decreased energy use by 30 percent.
- Project would not have been possible without a Craft3 loan



## Thank you

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*Receiving a loan from Craft3 was life altering. As a single mother of two, every penny counts. Spending one-third less on my gas bill was like getting a raise. I didn't have the resources to replace my outdated oil furnace. Craft3 allowed me to do that. I couldn't have done this in any way without them. I am so appreciative.*  
- Susan Cantor

**Desiree Sideroff**  
Products Manager  
[www.craft3.org](http://www.craft3.org)



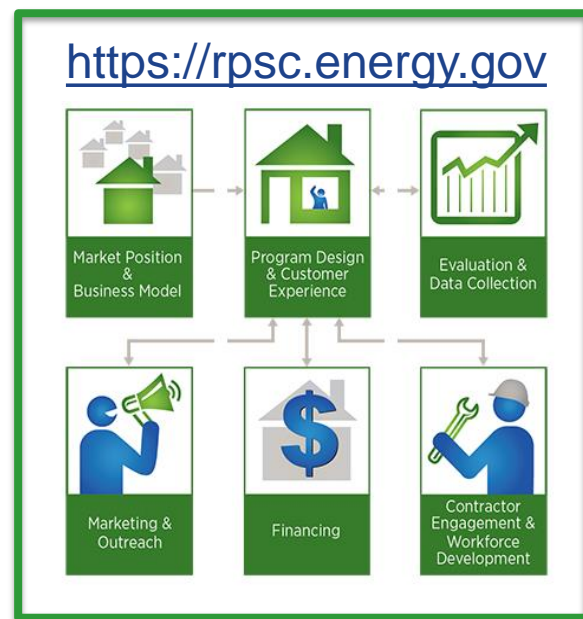
# Presentation Highlights: Craft3

- **On-Bill Financing:** Craft3 provides lower rates for all and a simplified underwriting process.
  - Craft3's on-bill financing has the **same rate for borrowers regardless of credit scores.** Homeowners with low credit scores are often given higher borrowing rates, which can make upgrades inaccessible for communities in need.
  - Historically, about 3% of loans are mitigated off bill, but **delinquency is not the primary reason-** unoccupied properties that transition into rental properties are just as prevalent as delinquency.
- **Set out communications expectations** with utility partners from the start to ensure that utilities are communicating effectively with customers to avoid confusion about the program.

# Related Resources in the Residential Program Solution Center

## Explore resources related to diversifying funding sources and building new revenue streams:

- Identify funding and revenue sources for your organization with insights from the [Market Position & Business Model – Develop a Business Model](#) handbook.
- Explore this SEE Action Network report on [Understanding the Value of Energy Efficiency Financing Programs Funded by Utility Customers](#).
- Read this [DOE publication](#) to help state and local governments understand the role of energy efficiency program administrators, develop successful partnerships with utilities and other program administrators, and take advantage of new opportunities.



- While you're there, see the latest [Proven Practices](#) post on [Incentivizing Home Upgrade Actions](#).
- The Solution Center is continually updated to support residential energy efficiency programs—[member ideas are wanted!](#)

# Presentation Highlights: Engaging Lenders

- To attract private lenders to lend for energy efficiency projects, target institutions that already have a consumer lending program and **make the business case by speaking their language:**
  - Unlike unsecured loans (e.g., which can be used for vacation), an **unsecured loan for upgrades enriches the credit quality of the borrower** by increasing the value of their home.
  - Nationwide, other lenders report **relatively low loss rates for energy efficiency lending.**
- **Use partnerships to reach lenders:** Utilities may have existing relationships with lenders and can provide that crucial introduction.

# Presentation Highlights: Engaging Contractors

- Contractors are a critical aspect of any upgrades program. Be mindful of their needs and provide education to ensure contractors are also working to promote your financing:
  - For business, contractors often prefer the instantaneous (mattress-sale type) credit. **Spend the time educating contractors on the benefits of providing well-packaged loans** that are more attractive to the homeowner and will ultimately enhance their business.
- In designing your financing structure, **make sure your process helps contractors** and their business needs as well.
  - Online applications and electronic document signing **make it a fast and simple process.**
  - If possible, **provide advanced progress payments** to contractors.

# 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:

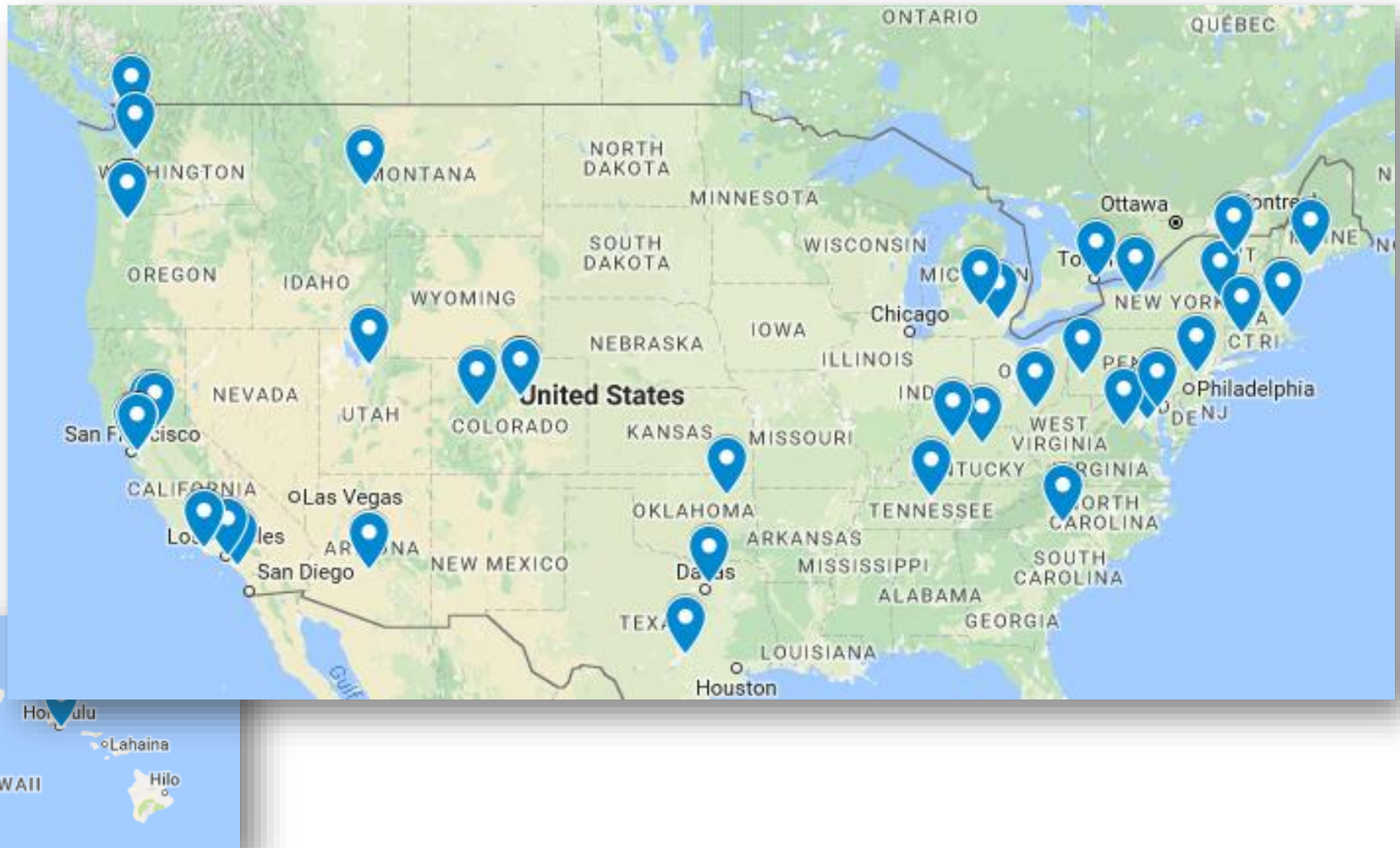
- *November 24: No Call – Thanksgiving*
- *December 1: America's Next Top Energy Model: Tools and Best Practices (101)*
- *December 8: Oh, the Weather Outside is Frightful: Energy Efficient Manufactured Homes (301)*
- *December 15: Hibernation Mode: What Smart Thermostats Can Do for You (301)*

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

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

# Addenda: Attendee Information and Poll Results

# Call Attendee Locations



# Call Attendees: Network Members

- BAM Superior Solutions
- Building Performance Institute
- City of Cambridge
- City of Irvine
- City of Plano
- Civic Works
- CLEAResult
- Connecticut Green Bank
- Davis Energy Group
- Efficiency Vermont
- Efficiency Maine
- Energy Efficiency Specialists
- Enhabit
- Home EnerChi, LLC
- International Center for Appropriate and Sustainable Technology (ICAST)
- Michigan Saves
- Montgomery County Department of Environmental Protection
- National Housing Trust/Enterprise
- Vermont Energy Investment Corporation (VEIC)

# Call Attendees: Non-Members (1 of 2)

- Akin & Associates
- Architectural Nexus
- Arup North America, Ltd.
- BA Consult
- Bank of Montreal
- Carolina Smart Homes
- City of Ann Arbor
- CivicSpark
- Craft3
- Energy Analytics
- Environmental Design / Build
- George Washington University
- Greenbanc
- Hawaii Energy
- Montana Department of Public Health & Human Services
- National Association of Realtors (NAR)
- Rocky Mountain Institute
- Rothschild Doyno Collaborative
- Rethinking Power Management LLC (RPM)
- Sealed
- South-central Partnership for Energy Efficiency as a Resource (SPEER)

# Call Attendees: Non-Members (2 of 2)

- Hawaii State Energy Office
- Sustainable Connections
- Sweet Sustainable Solutions
- Tennessee Valley Authority
- The Local Government Commission
- Tierra Resource Consultants
- UpGrade Athens County (UpGrade Ohio)
- V3 Power
- Ventura County Regional Energy Alliance (VCREA)

# Opening Poll #1

- Which of the following best describes your organization's experience with diversifying funding sources?
  - Limited experience/familiarity – **38%**
  - Some experience/familiarity – **35%**
  - Very experienced/familiar – **12%**
  - No experience/familiarity – **11%**
  - Not applicable – **4%**

# Closing Poll

- After today's call, what will you do?
  - Seek out additional information on one or more of the ideas – **91%**
  - Make no changes to your current approach – **9%**
  - Consider implementing one or more of the ideas discussed – **0%**
  - Other (please explain) – **0%**