



**Better Buildings Residential Network Peer  
Exchange Call Series: *Financing  
Multifamily Energy Efficiency Upgrades***

February 12, 2015

*Call Slides and Discussion Summary*

# Call Participants

- California Center for Sustainable Energy
- City of Kansas City, MO
- CLEARResult
- Craft3
- Economic Opportunity Studies, Inc.
- Energy Efficiency Specialists, LLC.
- Greater Cincinnati Energy Alliance
- Michigan Saves
- NYC Energy Efficiency Corporation (NYCEEC)
- NYC Department of Housing Preservation and Development
- NYC Mayor's Office of Sustainability
- Piedmont Housing Alliance
- Stewards of Affordable Housing for the Future
- Wisconsin Energy Conservation Corporation (WECC)

# Opening Poll

- What is your familiarity with multifamily financing strategies?
  - **Somewhat familiar – aware of strategies but do not directly implement—46%**
  - Very familiar – help to implement one or more financing options—**31%**
  - New to the multifamily financing world—**23%**
  - Other (please explain)—**0%**

# Better Buildings Residential Network

- **Better Buildings Residential Network**: Connects energy efficiency programs and partners to share best practices to increase the number of American homes that are energy efficient.
  - Membership: Open to organizations committed to accelerating the pace of existing residential upgrades. Commit to providing DOE with annual number of residential upgrades, and information about benefits associated with them.
  - Benefits:
    - Peer Exchange Calls
    - Tools, templates, & resources
    - Newsletter updates on trends
    - Recognition: Media, materials
    - Optional benchmarking
    - Residential Solution Center

For more information & to join, email [bbresidentialnetwork@ee.doe.gov](mailto:bbresidentialnetwork@ee.doe.gov).

- **Better Buildings Residential Network Group on Home Energy Pros**

Join to access:

- Peer exchange call summaries and calendar
- Discussion threads with energy efficiency programs and partners
- Resources and documents for energy efficiency programs and partners

<http://homeenergypros.lbl.gov/group/better-buildings-residential-network>

# Better Buildings Residential Network Group on Home Energy Pros Website




## Better Buildings Residential Network

Created by Better Buildings Support

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### Information

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

 Website: <http://betterbuildings.energy.gov/bbm>






Latest Activity: 8 hours ago

Join the conversation in the discussion forum below. You can use the "Follow" link at the bottom of the forum to receive an email whenever a new discussion is posted.

Open the table of contents below and follow the links to access topical materials and resources.

#### Helpful Links

- Table of Contents
- Better Buildings Residential Network
- Better Buildings Neighborhood Program Website
- Home Performance with ENERGY STAR
- Home Energy Score

 [Table of Contents](#)  [+New Discussion](#)  [Peer Exchange Call Archive](#)  [Better Buildings Network View](#)  [Tools](#)  [Related Events](#)

### Discussion Forum



#### Attend Today's Peer Exchange Calls on Program Sustainability and on Workforce

Don't miss today's calls. "Collaborating with Utilities on Residential Energy Efficiency" begins at 12:30 p.m. Eastern and "Engaging Efficiency First Chapters and Other Trade Associations in Energy Efficiency Programs" begins at 3:00 p.m. Eastern.

Continue

Tags: Peer Exchange Calls

Started by Better Buildings Support 8 hours ago.



#### Register for Upcoming DOE Webinar About On-Bill Financing

Sign up to attend the DOE State and Local Energy Efficiency Action Network (SEE Action) webinar, "Case Studies: Financing Energy Improvements on Utility Bills," taking place June 11, 2014, from 2:00 to 3:30 p.m. Eastern. To learn more on this topic, read

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### Home Energy Pros

Home Energy Pros was founded by the developers of Home Energy Saver Pro (sponsored by the U.S. Department of Energy,) and brought to you in partnership with Home Energy magazine.

### Latest Activity

What brings you here?

[Share](#) 140

Tucker Henne commented on David Byrne's blog post Does Aereoseal work? An auditors review

"I would like to begin with a disclaimer that I am an Aereoseal contractor. One of the reasons I..."

16 minutes ago

T.J Alexander posted a blog post

**So many homes have fiberglass insulation that is poorly installed in New Hampshire and elsewhere**

Doing testing of existing homes it is typical to see mottled patterns of surface temperatures with...

See More

1 hour ago

CleanEdison updated an event



**Entry Level Solar Photovoltaic at Cotuit, MA**

September 30, 2012 to

# Peer Exchange Call Series

- Calls are held the 2nd and 4th Thursday of every month at 12:30 and 3:00 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:
  - February 26, 12:30 ET : Generating Energy Efficiency Project Leads and Allocating Leads to Contractors
  - February 26, 3:00 ET : Normalizing Weather Data to Calculate Energy Savings
  - March 12, 12:30 ET : Networking Call for Residential Network Members
  - March 12, 3:00 ET : Using Mobile Applications to Generate Customer Demand
- Send call topic ideas to [peerexchange@rossstrategic.com](mailto:peerexchange@rossstrategic.com).

# Peer Exchange Call Summaries

## Discussion: Challenges and Solutions

- Overcoming Challenges - Solutions:
  - Access trusted, local messengers
  - Engage your satisfied customers as champions to turn them into "lifetime customers"
  - Invite people to make a pledge with a few simple EE activities they can take
  - Connect with the right local partners (Connecticut conducted "community asset mapping")
  - Directly involve the homeowner through DIY work or as energy efficiency demonstration homes to help them feel engaged (San Diego demonstration homes)
  - Minimize paperwork to make it easier to participate

20



## Poll Results

Participant Poll: Which of the following best describes your program's experience with energy efficiency behavior change efforts?

- Currently implementing: 31%
- Planning to implement: 31%
- Thinking about it: 19%
- Haven't thought about it: 0%
- Not applicable: 19%

The screenshot shows the Home Energy Pros website interface. At the top, there's a navigation menu with links for Home, Invite, My Page, Members, Forum, Blogs, Groups, Photos, Videos, and Events. Below the navigation, there's a breadcrumb trail: "Back to Better Buildings Residential Network" and "All Better Buildings Residential Network Pages". The main heading is "Peer Exchange Archive: Program Sustainability". Underneath, there are several entries, each with a title, date, and a link to a PDF summary. The entries are: "Incorporating Behavior Change Efforts into Energy Efficiency Programs" (July 10, 2014), "Collaborating with Utilities on Residential Energy Efficiency" (June 12, 2014), "BBRN Voluntary Initiative: Partnering to Enhance Program Capacity" (May 8, 2014), "Complementary Energy and Health Strategies" (April 10, 2014), and "Mastermind: Jim Mikel, Spirit Foundation" (March 13, 2014).

*How do you eat an elephant? One bite at a time. A slight shift in perspective goes a long way.*

*Understanding how EE can solve a financial, public relation, or customer service problem for the utility is the right place to start.*



# Residential Program Solution Center

Web portal of residential EE upgrade program resources, & lessons learned to plan better, avoid reinventing the wheel.

- BB Neighborhood Program, Home Performance with ENERGY STAR Sponsors+
- Provides:
  - Step-by-step guidance
  - Examples
  - Tools
  - Templates
  - Lessons learned
  - Best practices
  - Tips
- Continually add content to support residential EE upgrade programs—member ideas wanted!



<https://bbnp.pnnl.gov/>



**Program Experience: Michigan Saves**  
*(Network Member)*

# Financing Energy Efficiency in the Multifamily Market

Better Buildings Residential Network

Peer Exchange Call

February 12, 2015

Mary Templeton

Executive Director, Michigan Saves



# Multifamily Market Challenges

- Split incentives
  - Tenants pay the bills but don't own the equipment
  - No payback for property owners
- Understanding which incentives are available
  - Utility incentives vary based on definition and structure of program
    - Residential + Commercial = Multifamily
- Programs, tools, and financing options vary for market rate versus affordable housing
- Management and ownership structures are complicated—creates challenges in approving financing

# Opportunities and Benefits

- Electricity in common areas always on
- Better tenant retention
- If tenants are spending less on utility bills, assumption is they can more easily pay rent
- Less risk of utility shutoff—protects properties from frozen pipes and other repair problems
- Lower maintenance costs
- Helps to resolve rodent issues
- Cost savings opportunity for properties that include utilities in rent

## American Council for an Energy-Efficient Economy:

Comprehensive retrofits can improve the efficiency of multifamily buildings by 30 percent for natural gas and 15 percent for electricity.



# Michigan Saves: A Financing Solution

- Established financing program in Q4 2013
- Revised underwriting standards to accommodate unique nature of market
  - Extended lease terms to 84 months
  - Expanded credit criteria to include analysis of rental income vs. expenses
  - Eliminated issues related to financing windows and expanded ability to finance soft costs
- Received approval from MSHDA to allow subordinate financing
- Currently working with HUD to allow subordinate financing



# Marketing and Outreach

- Contractor network communications
- Reaching owners/operators through association meetings
- Attended and presented at several regional and national conferences

# Results

- Financed seven projects
- Total amount financed:
  - \$609,000 (range \$15,000–\$269,000)
  - Interest rates: 7–9 percent
- Sample customers: nonprofit, senior home center, condominium
- Common measures: HVAC, windows, LED lighting, Energy Star roofs



# Observations

- Loan loss reserve essential to lender's ability to offer lower rates, longer terms, and more flexible lending criteria
- Affordable housing and market rate housing have different financing options
- Property owners are relatively unaware of the benefits of energy efficiency
- Convincing property owners to make improvements when no financial benefit exists (split incentives) is a very difficult proposition
- Segmenting properties into those where tenants pay utility bills and those that don't is difficult

# 2015 Focus

- Market rate properties
- Master metered
- Property Management Association presentations and outreach
- Leverage partner contacts and activities

# Michigan Saves Lessons Learned: Multifamily vs. Commercial Sector Financing

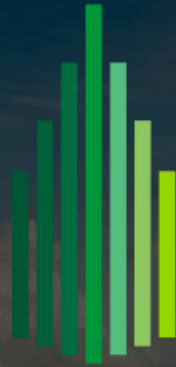
- Multifamily project loans required around a 25% loan loss reserve—2.5x the loan loss reserve for commercial projects.
  - Found the higher loan loss reserve was necessary to finance soft costs for multifamily projects (i.e., window replacements, insulation, air sealing) and to provide longer lease terms to borrowers.
  - Michigan Saves does not use traditional underwriting for multifamily loans. The program assesses whether the existing rental income can cover the loan expenses.
- While some counties in Michigan allow PACE financing, the multifamily sector has few examples of its use. PACE financing allows for further extending of lease terms, which is an advantage for multifamily sector financing.
  - Launched in Jan. 2015, the California Multifamily PACE Pilot will use criteria developed by HUD to make HUD-assisted and insured housing in California eligible for PACE financing. The pilot could have implications for use of PACE financing in the multifamily sector nationally.
- The program is prescriptive; it does not require an energy analysis or specific level of energy savings to qualify. While the program is supportive of benchmarking, Michigan Saves also does not require it of properties.

# Michigan Saves Lessons Learned: Generating Demand

- The program has not been able to finance a project where there is no payback to the property owner.
  - Every project that was financed supported energy efficiency savings in property common areas rather than in tenant living spaces. If energy efficiency improvements occurred in individual tenant spaces, the property owner held responsibility for paying each unit's utility bill.
  - Example projects:
    - Multifamily home for homeless young mothers (window replacement, heating and vent upgrades)
    - 275 unit condo project (lighting upgrade)
    - Senior living apartment complex (air handling)
  - Utilities don't always have information on properties where tenants are not paying the utility bills.
- Building the program's contractor network proved an effective marketing strategy to attract borrowers.

# Example Strategies: New York City Energy Efficiency Corporation (NYCEEC)





NYCEEC

BUILDING FINANCIAL SOLUTIONS

LEADING INNOVATION IN  
CLEAN ENERGY FINANCE

February 2015

# ABOUT NYCEEC



- Established in 2011, NYCEEC is a non-profit specialty finance company that develops financing solutions for projects that save energy or reduce greenhouse gases
- NYCEEC provides loans and technical expertise to make NYC buildings cleaner, greener and more affordable
- NYCEEC was initially funded and supported by the US Department of Energy and private philanthropic foundations



# OUR IMPACT



**\$52 million**  
PROJECTS  
FINANCED

**26** custom  
FINANCIAL SOLUTIONS  
DELIVERED

**6** GREEN MORTGAGE  
LENDERS



**3.9 million**  
SQUARE FEET  
COVERED

**FORTY-ONE**  
BUILDINGS  
FINANCED

IN ALL FIVE BOROUGHES  
among all building types



**6,396**  
POUNDS  
OF PM 2.5

reduction

**513,407**  
TONS OF



**ELIMINATED**  
EVERY YEAR

**17.1 million**  
MMBtus OF ENERGY SAVED

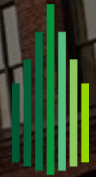


**2835**  
AFFORDABLE  
HOUSING UNITS  
UPDATED

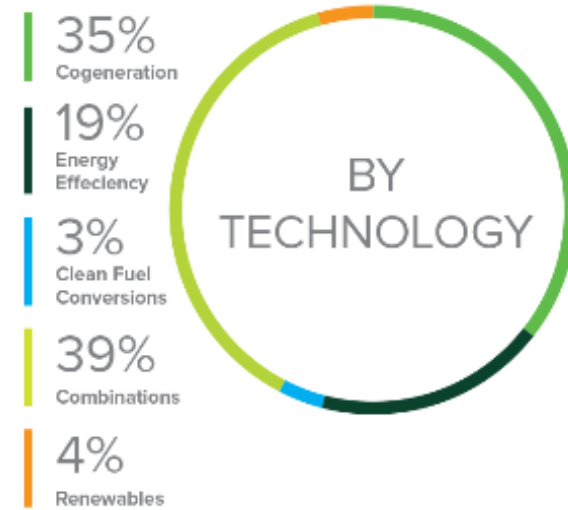
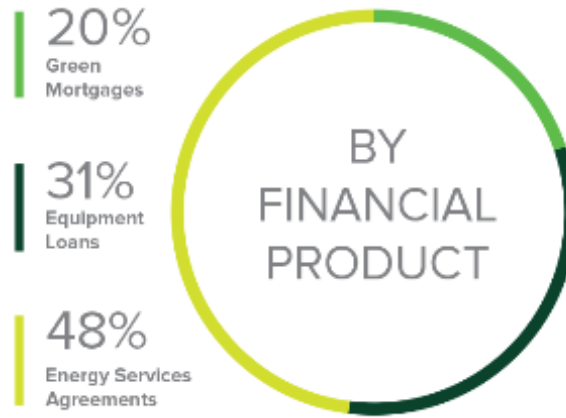
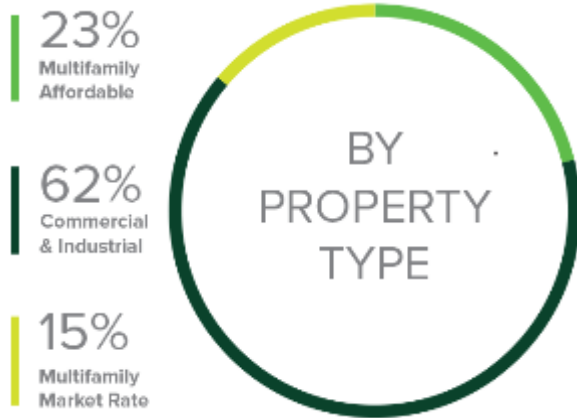
**565**  
JOBS  
created



# DIVERSE PORTFOLIO



\$52 MILLION

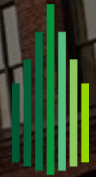






DEAL SPOTLIGHTS

# FINANCING MULTIFAMILY



NYCEEC has financed multifamily projects using different financial products. Highlights include:

- Green mortgages
  - Colden Avenue
  - Franklin Plaza
  
- Direct loans
  - Spencer Place
  - West 90th Street
  
- ESAs
  - Roosevelt Landings

# NYCEEC-PARTNER GREEN MORTGAGE PROGRAMS



## THE MARKET **CHALLENGE**

Multifamily buildings have limited access to mortgage financing for energy and water efficiency measures.

## THE NYCEEC SOLUTION

NYCEEC credit enhancement has enabled partner-financial institutions to offer green mortgages with additional loan proceeds for energy and water efficiency improvements. Lenders can systemically incorporate EE operating savings into the mortgage lending process

### FANNIE MAE M-PIRE

- Multifamily Property Improvements to Reduce Energy (M-PIRE)
- DUS lenders offer green first mortgages & supplementals by including up to 50% projected energy cost savings
- 85% LTV vs. standard 80%
- Market-rate & affordable co-ops, rentals

### NYC HDC PERL

- Program for Energy Retrofit Loans (PERL)
- Green first mortgages & supplementals
- Provides additional loan proceeds for building upgrades
- Affordable co-ops and rentals





# COLDEN AVENUE



## EE + FUEL CONVERSION PROJECT

### THE CLIENT **CHALLENGE**

Colden Avenue sought additional mortgage proceeds to fund energy efficiency improvements to cut operating costs.

### OVERVIEW & THE NYCEEC SOLUTION

Built in 1928, Colden Avenue is a five-story, 40-unit building in the Bronx.

The property owner sought additional mortgage funds to fund energy efficiency measures and an oil-to-gas conversion in order to cut operating costs.

Working with their lender Greystone, the property participated in the NYCEEC-Fannie Mae Multifamily Property Improvements to Reduce Energy (M-PIRE) loan program.

Projected energy savings were underwritten, allowing the property to receive additional mortgage funds than otherwise would be available under a traditional loan.

### THE RESULTS

- The property is projected to save \$36,600 annually
- Cleaner and healthier building
- More efficient operations
- Improvements: Oil to natural gas conversion, DHW pipe insulation, steam and condensate insulation



# FRANKLIN PLAZA



## THE CLIENT CHALLENGE

Franklin Plaza was enthusiastic about the significant opportunity to save money through energy efficiency upgrades, but lacked the technical expertise and financial resources to make it happen.

Franklin Plaza was in the process of refinancing its mortgage with the NYC HDC.

## OVERVIEW & THE NYCEEC SOLUTION

Built in 1960, Franklin Plaza is an affordable multifamily co-op in East Harlem with 14 20-story buildings and 1,632 units.

Franklin Plaza sought a green mortgage from HDC's and NYCEEC's Program for Energy Retrofit Loans (PERL). Through PERL, Franklin Plaza received an additional \$2 million specifically for energy upgrades, as part of a larger \$36.7 million renovation and refinancing.

NYCEEC provided the co-op with technical assistance, helping them prioritize the energy efficiency upgrades that would modernize the facility and help keep apartments affordable.

## THE RESULTS

- Co-op included energy upgrades as part of larger capital project
- Preserved affordability and improved building comfort
- Substantially modernized facility and upgraded building systems
- Unlocked additional \$1.8 million loan from NYC HPD
- Improvements: #6 oil to natural gas conversion, separation of heat and hot water systems, elimination of wasteful steam pipe, steam distribution improvement





# SPENCER PLACE



## THE CLIENT CHALLENGE

Spencer Place sought financing to implement cost-saving recommendations from its NYSERDA energy survey.

However, commercial lending opportunities were unavailable for this project.

## OVERVIEW & THE NYCEEC SOLUTION

Spencer Place is a 5-unit rental brownstone in Brooklyn.

The owner sought to improve building performance, increase tenant comfort and save money by implementing measures recommended in its NYSERDA energy survey, including a #2 oil to natural gas conversion, lighting, heating controls and insulation.

NYCEEC's technical and financial expertise helped the building owner prioritize the upgrades. NYCEEC partnered with NYSERDA's Green Jobs Green New York Multifamily Financing program to provide an \$55k loan, covering 100% of the project costs.

## THE RESULTS

- Increased tenant comfort with minimal disruption
- Cleaner and better-performing building
- Energy cost savings used to repay loan
- Construction began with no upfront costs
- Improvements: Oil to natural gas conversion, lighting, heating controls, insulation and high efficiency boilers



# WEST 90TH STREET



## THE CLIENT CHALLENGE

The West 90th co-op was enthusiastic about the significant cost savings from the project. However, the co-op could not refinance their mortgage with their lender without incurring large prepayment penalties. The co-op also had a line of credit, but did not want to use this for the project.

## OVERVIEW & THE NYCEEC SOLUTION

West 90th street is a 50k square feet, 54-unit co-op on the Upper West Side.

The co-op sought to comply with Local Law 43 Clean Heat and also save significant operating costs. The co-op wanted to convert from #6 oil to natural gas and install related efficiency improvements, including new burners and separation of heat and hot water systems.

NYCEEC provided a \$400,000 loan for the #6 to natural gas conversion and related efficiency measures. NYCEEC was able to provide an unsecured loan that worked with the co-op's mortgage covenants.

## THE RESULTS

- Cleaner and better-performing building
- Comply with Local Law 43: Clean Heat
- Energy cost savings used to repay loan
- Improvements: #6 oil to natural gas conversion, separation of heat and hot water systems, new burners



# ROOSEVELT LANDINGS



## THE CLIENT CHALLENGE

Roosevelt Landings wanted to upgrade outdated systems and improve the complex's resiliency.

The project's technical complexity and long payback meant that traditional loans were not available.

## OVERVIEW & THE NYCEEC SOLUTION

Roosevelt Landings is a mixed-income multifamily complex, consisting of 9 buildings and over 1,000 multifamily dwellings.

NYCEEC's expertise was key to structuring a financing strategy that made sense for Roosevelt Landings and unlocked significant energy efficiency investment potential.

NYCEEC provided a \$5 million loan under a combined energy services agreement and power purchase agreement structure to fund energy efficiency measures and cogeneration.

## THE RESULTS

- Construction began with no upfront costs
- Energy cost savings used to repay loan
- Pioneering use of ESA to finance EE in multifamily sector
- Largest multifamily air sealing project project to date
- Improvements: Cogeneration, whole-building air sealing, floor slab insulation, networked programmable thermostats and high-efficiency boilers

# CONTACT US



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



# NYCEEC Lessons Learned

- Partnering with mortgage lenders has allowed the program to incorporate water conservation and energy efficiency improvements into the existing financing processes of multifamily properties.
- Multifamily properties are often under a tight budget. NYCEEC adjusts loan payments to a property's cash flow structure and provides unsecured loans when needed to maintain flexibility for borrowers.
  - NYCEEC will pay for equipment and contractors upfront and adjust the loan rate as the property qualifies for utility incentives.
  - The loan interest rate offered by NYCEEC depends on multiple factors.
- The loan process often requires handholding. Frequent submission of incomplete proposals makes creates difficulty in deciding where to allocate resources. NYCEEC estimates the program closes one out of every ten projects in its pipeline.
- Diversifying its loan portfolio to include co-generation, fuel conversions, and renewables as well as energy efficiency, as well as to apply to multiple sectors, has allowed NYCEEC to tackle enough projects to sustain the program's momentum.

# Discussion Questions

- What approaches for financing multifamily upgrades has your organization considered or tried? Are there any lessons learned from those approaches?
- Is financing of multifamily projects part of your overall residential program financing approach or is it a separate approach?
- What are some challenges you face with obtaining financing for multifamily upgrades?
- Other questions/issues related to the topic?

# Discussion: Resolving Split Incentives in the Multifamily Sector

- **On-bill financing** allows utility customers to invest in energy efficiency improvements with repayment made through additional charges to their utility bill. If the energy savings of the improvements are equal to or greater than the monthly cost to finance the project, on-bill financing creates a "bill-neutral" financing option. It is most effective if the program can predictably demonstrate the energy and cost savings from the improvements (prescriptive programs may lack the data to predict results).
- In some circumstances, **low-income housing tax laws** may provide tax incentives to multifamily, low-income housing properties that can demonstrate how investments in energy efficiency improvements significantly reduced utility costs for tenants.
- For additional strategies, the September 25, 2014 peer exchange call **“Strategies to Overcome Split Incentive Tenant / Landlord Issues”** discussed this topic. Access the call slides and discussion summary on the Residential Network Group site on [Home Energy Pros](#).



# Closing Poll

- After today's call, will you:
  - **Seek out additional information on one or more of the financing approaches?—86%**
  - Consider implementing one or more of the financing approaches discussed?—14%
  - Make no changes to your current approach to financing multifamily EE upgrades?—0%

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