EcoWise talks Retrofits with the Rocky Mountain Institute

For this issue, EcoWise talked to Alexis Karolides of the Rocky Mountain Institute; RMI is a nonprofit organization with a focus on clean energy. Below, Ms. Karolides answers questions about the organization and its informational website for public housing agencies, Retrofit Depot.

Could you tell us about the Rocky Mountain Institute (RMI) and its goals?

RMI is nonprofit “think and do tank” with a mission to drive the efficient and restorative use of resources. Our vision is a world thriving, verdant, and secure, for all, forever. Toward that end, we are focused on transitioning the U.S. from coal, oil and nuclear energy to efficiency and clean, renewable energy by 2050.

How do energy retrofits fit in with RMI’s goals?

Buildings are the ultimate end-users of 68 percent of coal and 55 percent of natural gas in the United States. A huge unexploited opportunity exists to mitigate fossil fuel consumption in this sector, and because much of the building stock that will be in use in 2050 is already built, we must make it significantly more energy efficient if we are to meet our goal of transitioning to efficiency and renewable energy by 2050.

How would you describe the resource, Retrofit Depot?

The RetroFit Depot is a Rocky Mountain Institute website that provides news, a community forum, and tools for deep energy retrofits. The site shows you how to build the case for a deep energy retrofit and walks you through how to enact such a retrofit from idea to completion. It includes answers to frequently asked questions and a robust compilation of resources, guidelines, and public tools, such as those for energy modeling, life cycle cost analysis, financial analysis and benchmarking.
Could you explain what a deep energy retrofit is?

A deep energy retrofit is a whole-building analysis and construction process that achieves much larger energy cost savings—sometimes more than 50% reduction—than those of simpler energy retrofits and fundamentally enhances the building performance and value. Those implementing a deep energy retrofit consider all major capital needed in the building over the next several years and then they modify the business-as-usual scenario to create higher efficiencies and other benefits. The actual upgrades recommended by the whole-building analysis can occur all at once or can be phased over several years, depending on budget or financing mechanisms.

What are the particular benefits of a deep energy retrofit?

A deep energy retrofit can meet all business-as-usual objectives (such as replacing failing equipment, repairing leaks, etc.) while providing many other benefits—greater long-term energy- and cost savings, hedging against rising electricity and fuel prices, community leadership, and compliance with future codes. Finally, and perhaps most important, deep retrofits provide value beyond cost savings, such as improving occupant comfort and health.

How can public housing agencies utilize the Retrofit Depot resource?

PHAs can gain an understanding of the benefits of deep energy retrofits, when the timing is right to perform a whole-building analysis (for example, corresponding to a major building system replacement, portfolio planning or an upgrade to meet code), and the types of financing that may be available, including emerging mechanisms.

How would you recommend PHAs make the case for deep energy retrofits despite the higher upfront costs?

PHAs own and maintain their housing stock for a long timeframe so reducing the total cost of ownership and increasing net present value makes sense and this can be achieved with a deep retrofit particularly if the retrofit is timed to correspond to planned business-as-usual renovations. Of course the hurdle is to find the upfront financing to achieve the benefits of the deeper retrofit, but Energy Service Companies and other financing tools can be used, with the caveat that it is important to avoid cream-skimming (doing just the retrofit measures with the shortest simple payback).

What is the most important thing housing agencies should know about Retrofit Depot?

While there are many resources for “light” or “shallow” retrofits, RMI’s RetroFit Depot is your premier resource to learn more about the benefits and ways to implement deep energy retrofits. The site is chock full of useful resources, tools and answers to questions, so I invite you to check it out!
The holiday season is often a time for gifts, including electronic gadgets. But while it’s easy to know what to do with and old toy or furniture, there’s often less information on what to do with old cellphones, music players or televisions. In fact, there are opportunities to donate or recycle old electronic appliances across the country.

Donating allows old gadgets to be reused and can help nonprofit organizations meet the needs of their client base. For example, the National Network to End Domestic Violence gives a lifeline to women in domestic violence situations by supplying them with donated phones. Similarly, Cell Phones for Soldiers provides free cell phones and airtime to active duty troops. Phones 4 Charity allows individuals to mail in their cell phones from across the country and gives them to a number of charities.

Recycling can help reduce the environmental impact of replacing electronic devices. According to the Environmental Protection Agency (EPA), every 1 million laptops recycled saves enough energy to power 3,500 US homes for a year. Also the agency reports that for every million cell phones recycled, 35 thousand pounds of copper, 772 pounds of silver, 75 pounds of gold, and 33 pounds of palladium can be recovered.

Below is a list of a few groups working in nationwide electronics recycling or donating.

- The Freecycle Network
- Dell Reconnect
- Earth 911

This list is not comprehensive and residents are encouraged to find local programs for donating or recycling electronics. The EPA offers search tool to help the public find programs in their area. Check it out, here.

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E-mail: The Resident@HUD.gov (Put “EcoWise” in subject line)

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