Leveraging Utility Programs AND Financing for Efficiency Upgrades

The Power of "Both/And" Thinking

Affordable housing providers face the perennial challenge of delivering high-quality housing with limited resources. Slim cash flows, few funding sources, and constraints on additional borrowing limit their ability to upgrade to high-performing, efficient technologies. These upgrades would lower operating costs, reduce carbon emissions, and improve residents’ health, safety, and comfort. Often, upgrades seem unduly complicated and force a choice between either tackling low-hanging fruit through state and utility efficiency programs or engaging in complicated financing arrangements with high transaction costs. But there is another way. By partnering with Affordable Community Energy (ACE), Mercy Housing embraced a new retrofit model that both leverages some of the nation’s best energy efficiency programs and provides a financing solution tailored to the needs of multifamily affordable housing.

Together, Mercy Housing and ACE, along with Bright Power, Inc. as a technical advisor and master contractor, are set to achieve significant savings across a large portfolio of properties.

Evaluating the Mercy Portfolio

Mercy Housing is a non-profit affordable housing provider that manages more than 23,000 affordable rental apartments at 325 properties across the country. For their partnership with ACE, Mercy Housing chose to focus on its California properties, which represent nearly 40% of its portfolio. This choice was strategic because California has strong commitments to mitigating climate change and supporting low-income communities. The state’s commitments are evident in (1) the range of incentive programs available to affordable housing and (2) the capacity of the green building workforce to implement programs and deliver improvements in low-income communities. After screening out properties that were already efficient, had larger capital needs, or were scheduled to be rehabilitated, Mercy Housing selected more than 5,700 units at 85 properties. The work is phased, beginning in 2017, with scheduled completion in late 2019.

The ACE Approach

Led by its President, Jeff Greenberger, ACE was able to incubate and prove its energy services business model while part of Hispanic Housing Development Corporation in Chicago, Illinois. Through this important period, ACE refined its understanding of a portfolio’s retrofit needs in relation to appropriate technologies, maintenance requirements, and financing constraints. ACE gained two major insights, which now differentiates its model from many financing options.

Using the Whole Tree and Whole Forest approaches, ACE is able to go deeper and broader with its retrofit projects.

Visit www.sahfnet.org/utility-programs for more information | Contact: contact@sahfnet.org
Advantages of the Pay-from-Savings Model

ACE offers a pay-from-savings contract, which eliminates many of the barriers to taking on loans at the property level. The contract does not require a lien on the property, although ACE retains ownership of the equipment it installs through the ten-year term of the agreement. Under the arrangement, the properties retain 20% of the savings, and ACE is repaid using 80% of the savings.

An advantage of the ACE model is that the pay-from-savings contract is based on actual utility bill data rather than engineering calculations or deemed savings as are often used in performance contracts. To achieve that, Bright Power is closely tracking, measuring, and verifying the consumption and cost data before and after the retrofits – a crucial piece in this model. Importantly, Mercy Housing’s National Environmental Sustainability Director, Caitlin Rood, also noted that their relationship with ACE included a high level of transparency with respect to their methods and the intricacies of their model. This built trust among the parties to move forward with a project of ambitious scale.

Technical Expertise and Data Analytics from Bright Power

Measuring, achieving, and maintaining a level of savings that can repay the cost of implementing the retrofits within ten years also requires technical and data analytics expertise. As Mercy Housing’s utility benchmarking provider and an implementer for many of California’s incentive programs, Bright Power was well-positioned to step into this role. As part of their contract with ACE, they conducted a desktop analysis that drew on data from their benchmarking software, EnergyScoreCards™, as well as typical retrofit costs, savings, and available efficiency incentives. From this analysis, they were able to identify likely retrofit measures which they rolled up into a portfolio scale financial pro forma able to evaluate the cost-effectiveness across the portfolio of properties.

Leveraging Incentive Programs

In California’s rich but intricate world of efficiency incentive programs, having a partner like Bright Power to evaluate the best incentive options and manage the incentive procurement for different properties was key. Bright Power first identified whether or not a property should be slated for a whole-building retrofit program or a prescriptive rebate approach. Choosing the right efficiency program for each property also was critical to phasing the retrofit work. The Mercy-ACE project is expected to take advantage of multiple efficiency programs available in California: the Low-Income Weatherization Program, the Bay Area and Southern California Regional Energy Networks, as well as Marin Clean Energy and Pacific Gas and Electric programs along with other prescriptive rebate and pilot programs. These efficiency rebates and incentives are slated to cover $3.3 million of the total estimated project cost of $6.3 million.

Visit www.sahfnet.org/utility-programs for more information | Contact: contact@sahfnet.org
Retrofit Scopes and Savings

The expected retrofits comprise a full range of energy and water systems found in multifamily housing and include lighting, toilets and water fixtures, appliances, controls and pumps, pipe and tank insulation, and domestic hot water heaters. Across the portfolio, the retrofits are expected to generate nearly a million dollars of utility cost savings annually. The twelve properties retrofitted in 2017 show a 22% reduction in energy consumption and a 5% reduction in water consumption, with water savings expected to increase as the team identifies and corrects certain factors. Considering the ten year repayment term, the ability to maintain these levels of savings is critical. The ACE model addresses this factor by taking responsibility for equipment replacement and by Bright Power’s covering operations and maintenance of the ACE equipment. This ongoing responsibility also creates an opportunity to identify additional savings measures during the term of the contract.

“Combining the Low-Income Weatherization Program incentives with the ACE pay-from-savings offering, we were able to achieve deep levels of retrofit at these properties in a way we could not have otherwise done. We hope to replicate this approach with more California incentive programs at other properties in our portfolio.”

Caitlin Rood, Environmental Sustainability Director, Mercy Housing

Financing Lessons
Finding financing that utilizes projected savings and equipment liens as security rather than property liens was a significant challenge for the ACE model. Fortunately, a mission-driven lender, Reinvestment Fund, created a product that utilizes the pay from savings contract. While Community Development Financial Institutions such as Reinvestment Fund have paved the way for innovative financing solutions like to the ACE model to serve the affordable housing sector, greater support for pay-from-savings models by more traditional lenders will be key to the approach’s achieving its full potential.

Implementation Lessons
Early lessons from the Mercy-ACE project highlight the importance of quality utility data to appropriately scope and scale the retrofit work as well as good communication among all parties – including lenders and investors as well as asset management and property staff. The model provides a robust capital infusion to the properties with no risk of paying more than you save, and leveraging efficiency programs to cover more than half of the project cost gave the team a strong “leg up” to reach more properties with deeper measures and achieve the Whole Tree and Whole Forest approaches envisioned by ACE.