

## USE OF ENERGY PERFORMANCE CONTRACT ALLOWS CONTINUOUS PROVISION OF QUALITY AFFORDABLE HOUSING

### SOLUTION OVERVIEW

The Rockford Housing Authority (RHA) is located in Rockford, Illinois. RHA's mission is to partner with the community and responsible residents to transform houses into homes while guiding families to self-sufficiency. The public housing authority owns and manages over 1,900 public housing units, of which more than 75% were built before 1970. By 2012, U.S. Department of Housing and Urban Development (HUD) funding could not cover the aging housing stock's rising maintenance costs and RHA became a last resort housing option for many tenants. However, by implementing a successful energy performance contract (EPC), RHA regained its reputation for providing quality affordable housing that positively influences Rockford's economy, social fabric and livability.

### ORGANIZATION TYPE

Public Housing Authority

### BARRIER

Maintaining building portfolio with regulatory constraints and continuously reduced annual funding

### SOLUTION

Engaging in an Energy Performance Contract (EPC) to fund energy efficiency improvements at 8 properties

### OUTCOME

Reducing energy costs by over \$100,000 a year while improving the quality of housing for low-income housing tenants

### POLICIES

Funding for RHA's operations and capital improvements comes through the federal government by way of annual appropriations. Continued decreases in funding coupled with an aging housing stock made it difficult for the agency to maintain its public housing units. HUD does not allow

housing authorities to take out loans or incur debt on public housing units, which further complicated the situation. These challenges motivated RHA to find creative financing mechanisms to fund improvements to its housing stock and increase the quality of life of its residents, eventually choosing the EPC model as the best way to fund necessary improvements and meet its goals.

EPCs are innovative financing techniques that use cost savings from reduced energy consumption to repay the expense of installing energy conservation measures, allowing public agencies to achieve substantial energy savings without upfront capital expenditures. Under these contracts, an Energy Services Company (ESCO) contracts for energy improvements, guaranteeing energy savings and assuming the burden of performance. Before choosing the best financing mechanism for enhancing the energy efficiency of their housing stock, RHA identified goals and expectations for its energy efficiency strategy. In 2012, RHA embarked on a five-year strategic plan to:

- Maintain and strengthen its financial viability
- Transition residents into modern affordable housing
- Upgrade and modernize its scattered sites rental program for single-family and duplex homes
- Upgrade and modernize its high- and low-rise buildings

Although HUD allows public housing agencies to self-manage their energy performance contracting, it requires substantial internal capacity to oversee and manage project construction and measure and verify utility data. The Rockford Housing Authority decided to enter into a contract with an experienced ESCO largely because of the project size and the long-term responsibilities associated with its implementation.

## **PROCESS**

RHA drafted its request for proposal (RFP) using a template provided by HUD. RHA signed a \$7.5 million Energy Performance Contract with an ESCO, which then performed a comprehensive energy audit to determine the most effective energy efficiency measures for RHA's properties. The ESCO also assisted with estimating the project implementation costs. Negotiating the EPC's details is a complex and important step that involves identifying every aspect of the plan, including projects, funding, financing, and grant needs. After these details were finalized, RHA submitted the plan to HUD for a thorough approval process. RHA also spent additional time training local lenders on the purpose of the HUD program so that they would feel comfortable submitting proposals for lending terms.

RHA received approval in 2014 for an implementation project under a 15-year term to reduce utility consumption, address capital improvements, increase unit comfort, and improve overall resident quality of life. The project was completed in eight of RHA's buildings in December of 2015.

The ESCO began by holding resident meetings at each property before construction to inform residents of what the project entailed, what they could expect throughout the process, and how they could get the most out of the energy improvements. The ESCO required all subcontractors to attend "Resident Sensitivity Training," which covered topics such as access to apartments, job site safety,

communication protocol, and special needs residents. Training subcontractors ensured that residents would be as comfortable as possible throughout the retrofit process. The ESCO also provided Section 3 resident training in computer skills and employment readiness.

The ESCO provided post-implementation training for employees, staff, and maintenance based on the type of improvements and systems that were installed in the project. In addition to trainings on the mechanics of the efficiency upgrades, the ESCO provided web-based monitoring training for RHA employees, as RHA had requested the ability to monitor its system by remote access in its project.

## **OUTREACH**

Before embarking on this project, RHA spent several years working with both its Board of Commissioners and legal counsel to build internal consensus for the importance of implementing an EPC. Commissioners are volunteers who are often unfamiliar with the EPC financial tool. Like many public housing agencies, RHA invested time in training them to fully understand the process. After reaching internal consensus, RHA relied on the expertise of the ESCO to educate local lenders on the benefits and guaranteed ability for the housing authority to enter into the required long-term debt.

To ensure ongoing savings for both RHA and its tenants, the agency continues to use tenant outreach to encourage more sustainable lifestyles. Related efforts include creating a new tenant orientation video about efficiency, incorporating efficiency into the tenant guidebook, and adding energy savings tips into its resident newsletters. The agency also plans to place stickers on interior features such as lights and appliances with energy saving tips.

The flowchart below shows the types of outreach that RHA conducted:



## TOOLS AND RESOURCES

Rockford Housing Authority utilized the following tools to apply and implement its EPC:

- HUD EPC review process checklists, guidance, and sample documents for quantifying the savings resulting from energy efficient equipment, water conservation, renewable energy, and cogeneration projects
- Development of an EPC (HUD diagram of the EPC process)
- 24 CFR 990.185 Federal Regulations for a public housing authority to pursue an EPC

The Project Schedule Timeline shows RHA's process for planning and implementing its EPC.



## OUTCOMES

By utilizing an EPC, Rockford Housing Authority was able to implement an energy and water use reduction program that met its Board’s goals. The efficiency upgrades fit into RHA’s goal of transforming its housing stock from housing of last choice into desirable communities. By improving tenants’ quality of life and providing stable housing, RHA’s investments had a beneficial impact on the surrounding neighborhood. RHA increased the long-term financial sustainability of its housing portfolio by increasing efficiency and reducing utility costs.

## MEASURING SUCCESS

The EPC allowed RHA to install energy upgrades in eight of its buildings. Although the process from approval to project completion was lengthy, RHA realized immediate savings from its energy efficiency improvements.

From 2014 to 2015, installed energy efficiency measures produced cost savings of over \$100,000, which will be used to pay back the debt service incurred on the project. Future savings will be used to supplement operations and programming budgets at each site. The chart below reflects the total 2014 and 2015 utility expense and the total cost savings for the eight developments that received efficiency upgrades. Buildings on average are saving 13% on cost. Future analysis could include the corresponding energy savings.

2014 Total Utility Costs	2015 Total Utility Costs	Total Costs Savings
\$770,000	\$670,000	\$100,000





