



PROJECT OVERVIEW

Mercy Housing Lakefront (Mercy) worked with the Clinton Climate Initiative (CCI) and the City of Chicago to develop and implement an energy efficiency retrofit of 314 housing units. As designed, the project will reduce annual emissions by almost 200 tons of CO₂ – the equivalent of planting 50 acres of trees or taking 35 cars off the road each year.

INITIAL ENGAGEMENT

CCI's Energy Efficiency Building Retrofit Program (EEBRP) works with the City of Chicago, a C40 city, to develop large-scale projects and provide support on Energy Performance Contracting best practice terms and conditions. Together CCI and Chicago are working to design the Multifamily Energy Retrofit Program (MERP) and CCI approached Mercy to be a pilot in the program. Mercy is a non-profit housing provider to low income families with 35,000 housing units across the United States.

PROJECT AT A GLANCE

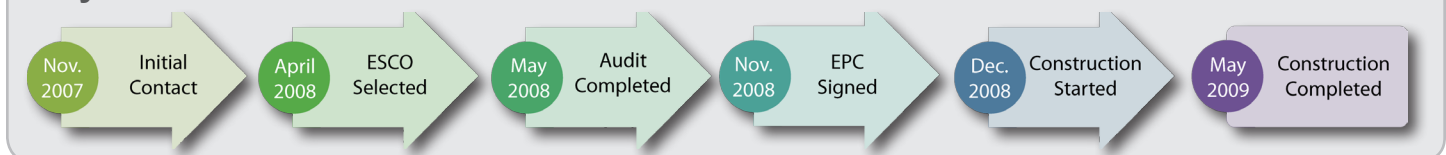
ESCO:	Ameresco
Project Size:	3 buildings/314 units
Project Cost:	\$537,000
Annual Energy Savings:	
• Electricity:	30% reduction (352,922 kWh)
• Natural Gas:	12% reduction (3,834 MBtu)
• Water:	11% reduction (3.4 mill gallons)
Annual Energy & Maintenance	
Cost Savings:	17.5% (\$31,137)
Annual Emission Reductions:	199 tons CO ₂
Simple Payback:	17 years
Construction Duration:	6 months

CCI introduced the concepts of energy efficiency building retrofits, energy performance contracting (EPC), and energy service companies (ESCOs) to Mercy. The EPC model is frequently used to retrofit public housing authority properties, but has not been used widely on privately-owned multifamily residential buildings. CCI also helped Mercy become familiar with life-cycle cost analysis of energy savings projects.

BACKGROUND ON THE PROGRAM

The Chicago Multifamily Energy Retrofit Program (MERP) is a public-private partnership working to provide owners of affordable multiunit rental properties with financing and technical assistance for energy efficiency retrofits. The goal of MERP is twofold: 1) to demonstrate a new approach for increasing energy efficiency, saving water and lowering greenhouse gas emissions in multiunit residential properties serving low-income people; and 2) to apply this approach at a large scale in Chicago, encouraging adoption across other cities.

PROJECT TIMELINE



ESCO SELECTION

Ameresco submitted a preliminary proposal which demonstrated the potential energy and cost savings of a building retrofit of the Mercy buildings. Ameresco is one of several ESCOs participating in the Chicago MERP program and executing EPCs under the CCI best practices terms and conditions. On this basis, Mercy and its financial partners decided to move forward with Ameresco to execute the project.

FINANCING SOLUTION

Outcome: Mercy funded the project through its own capital, a grant from the City of Chicago and a low-rate loan from the MacArthur Foundation. Although eligible for MERP funding, Mercy was ready and able to proceed before MERP funds became available, thanks to financing from the MacArthur Foundation at a favorable rate of interest.

CCI ROLE

Through its partnership with the City of Chicago, CCI served as a catalyst for this project. CCI supported Mercy throughout the project development process, including:

- Education on energy efficiency building retrofitting and life-cycle costing to assess project success
- Introducing the concepts of energy performance contracting (EPC) and paying for a retrofit out of operating expenses
- Helping design a mechanism for implementing large-scale energy efficiency retrofits without large capital expenditures
- Identifying ESCOs that could support CCI's EPC best practices
- Providing access to benefits of the MERP program, including subsidized audit "walk-away" fees
- Providing contacts and guidance on securing advantageous financing for the project
- Providing access to CCI's partners to include discounted pricing on energy efficient technologies

ENERGY CONSERVATION MEASURES AND CONTRIBUTION TO TOTAL SAVINGS

ELECTRICAL CONSERVATION MEASURES 55%

Lighting retrofit
Switching from T12 lighting to more efficient T8 and installing CFLs
Refrigerator replacements

WATER CONSERVATION MEASURES 45%

Low flow toilets (135 new toilets with 1.6 gallons per flush)
Low flow aerators (297 faucet aerators with flow between 1 and 1.5 gallons per minute)
Low flow showerheads (132 low flow shower heads with flow between 1.5 and 1.75 gallons per minute)

CLIENT FEEDBACK

“Mercy Housing and Mercy Services Corp were honored to be chosen by Clinton Climate Initiative and the City of Chicago to take part in their early efforts to educate not-for-profit affordable housing developers and managers on the value of retrofitting their buildings to make the apartments more energy efficient. We are very pleased with the results and would not have undertaken the retrofits without the assistance of the program. We look forward to working again with CCI and the City as we see the value of the retrofitting and the improvement in the quality of our resident’s lives.”

-Mercy Housing Lakefront

KEY CONTACTS

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