FUQUA BOYS & GIRLS CLUB

405 Lovejoy St NW, Atlanta, GA 30313

ENERGY & WATER EFFICIENCY PROGRAM OVERVIEW

September 2015

Site Details

- Average daily attendance of 99
- 17,341 square feet
- Constructed in 2001

Energy & Water Benchmarks

- $40,472 in baseline utilities cost
- 7 million Btu of energy per member per year
- 496 gallons of water per member per year

Improvements

- Invested $78,681 (including club contribution), or $4.55 per sq. ft.
- Predicted return on investment (ROI) of 15%
- Actual savings – after only 8 months – of over $16,000, 45% energy savings, and 3% water savings

Project Overview

The Salvation Army's Fuqua Boys & Girls Club in Atlanta was originally equipped with programmable thermostats that were not user friendly. This common problem often contributes to unintended HVAC system operation during unoccupied periods. These thermostats were upgraded to Web-based energy management controls.

Other improvements include installing LED lighting and occupancy-based lighting controls throughout, a new drinking fountain with a filtered water bottle refill station, vending machine controls, adding a timer to the domestic hot water circulating pump, and replacing standard plumbing fixtures with low-flow fixtures.

Projects Implemented	Predicted Annual Savings					Project Cost	Projected Return on Investment
	Water (CCF)	Cost	Million Btu (Site)	Million Btu (Source)	CO2 Emissions (tonnes)		
Install high-performance LED lighting throughout, with occupancy controls.	-	$6,536	172	539	24.4	$54,004	12%
Install web-based programmable thermostats with temperature control & humidity monitoring	-	$3,610	113	302	13.7	$6,950	52%
Install timer for domestic hot water circulating loop	-	$89	7	8	0.4	$250	35%
Install high-efficiency drinking fountain with bottle fill station	-	-	-	-	-	$2,061	
Install vending machine controls on drink machines	-	$150	4	12	0.6	$390	39%
Replace gas range with standing pilots with pilotless		$4,365	128	363	16.5	$6,076	72%
Replace plumbing fixtures with low-flow fixtures, including 0.5 GPM aerators, 1.28 GPF water closets, and pint-flush urinals	21	$344	-	-	-	$8,950	4%
Projected Total Savings, Cost, & ROI	**24%**	**30%**	**28%**	**30%**	**30%**	**$78,681**	**15%**

ENERGY & WATER EFFICIENCY PROGRAM

BOYS & GIRLS CLUBS OF AMERICA · Southface

About the Boys & Girls Clubs of America Energy & Water Efficiency Grant Program (BGCA EWEP): The Southeast Region of BGCA was selected to participate in an important pilot program to demonstrate the economic and environmental benefits of high-impact energy and water efficiency improvements in club facilities. Funded by The JPB Foundation, the program's ultimate goals were to reduce club utility expenses by 20 percent annually and to improve conditions in existing facilities, so they may be better used in support of BGCA's mission.

Project Highlights

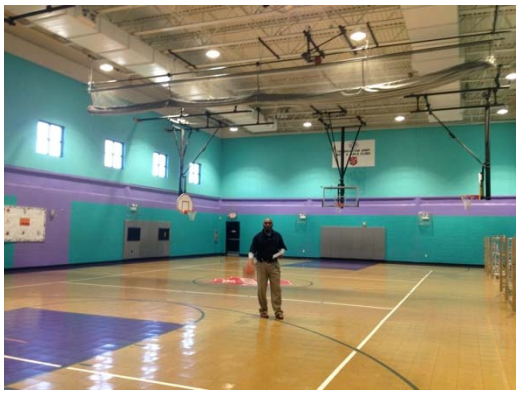

Figure 1: Gymnasium with New LEDs

Existing 400W metal halide gymnasium lighting was replaced with high-performance 240W LED with occupancy/vacancy controls.

Figure 2: Vending Machines

Vending machine controls ensure vending machine lighting stays off when the club is unoccupied.

Figure 3: Rooftop HVAC Systems

All facility HVAC systems are now under energy management control.

Figure 4: Gas Range with Standing Pilots

The original gas range had several standing pilots, which waste energy 24/7 and can impact air quality. The range was replaced with a unit having electronic ignition.

Figure 5: New Drinking Fountain with Bottle Fill Station

Everybody loves the filtered water from the new drinking fountain with bottle fill station!