

RICK & SUSAN GOINGS BOYS & GIRLS CLUB

51 Lewis Rd., Hemingway, SC 29554

ENERGY & WATER EFFICIENCY PROGRAM OVERVIEW

September 2015



Project Overview

The Rick & Susan Goings Boys & Girls Club has maintained the distinction of using the least amount of energy per square foot of facility of all of the pilot clubs. Yet they have managed to reduce their energy use by 5% under the Energy & Water Efficiency Program with great support from their corporate partner, Tupperware. Tupperware contributed in-house labor valued at more than \$28,000 for project management and installation of five of the seven projects implemented, and they completed their projects in record time. Additionally, Tupperware created a model recycling program, including professional program documentation that will be used as a model for other clubs.

Projects completed include LED lighting and vacancy controls, R-19 insulation, window film, vending machine controls, low-flow plumbing fixtures, weatherization of the gymnasium, and installation of two ENERGY STAR HVAC systems to replace two failed units serving the gym.

Site Details

- Average daily attendance of 114
- 25,930 square feet
- Constructed in 1970

Energy & Water Benchmarks

- \$18,290 in baseline utilities cost
- 3 million Btu of energy per member per year
- 1,077 gallons of water per member per year

Improvements

- Invested \$102,459 (including Tupperware in-house labor valued at \$28,382), or \$3.95 per sq. ft.
- Predicted return on investment (ROI) of 4%
- Actual savings – after 8 months – 5% energy savings
- Primary benefits to date are based on improved lighting quality & comfort in the gymnasium

Projects Implemented	Predicted Annual Savings					Project Cost	Projected Return on Investment
	Water (kgallon)	Costs	Million Btu (Site)	Million Btu (Source)	CO ₂ Emissions (tonnes)		
1. LED lighting & controls throughout							
2. Replacement of selected HVAC systems							
3. Weatherization of gymnasium							
4. Vending machine controls							
5. Window film							
6. R-19 insulation							
7. Low-flow plumbing fixtures							
Projected Total Savings, Cost, & ROI	31%	23%	22%	22%	22%	\$102,459	4%



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: Pint-Flush Urinals

New Pint-flush urinals use 87% less water than previous.



Figure 2: New 0.5-GPM Aerators

Restroom faucet aerators rated at 0.5 gallons per minute use 77% less water than previous.



Figure 3: New ENERGY STAR Gym HVAC

New HVAC systems use CO₂ controls to modulate fresh air delivered to the gymnasium.



Figure 4: Recycling Program

Tupperware, the club's corporate partner, created a model recycling program for the Rick & Susan Goings Club that will be used as a template for other clubs.



Figure 5: Recyclables Collected



Figure 6: Future Projects

Projects under consideration for future include adding a reflective coating to the gymnasium roof.