

*Unit savings ranged from 7.4% to 17.8% after HVAC Armor treatment*

## Situation

Schneider Electric partnered with HVAC Armor to develop and deliver a solution that would increase the efficiency of aged rooftop units that were not yet ready for replacement.

## Scope of Project and Product Application

Rejuvenating the coils on 600 rooftop units at 20 Jackson County School sites:

- General clean-up of overall unit and pressure wash coils
- Capture operating data to validate pre and post performance
- Disassemble equipment to perform deep clean
- Straighten aluminum fins to increase airflow
- Endoscope each coil (pre and post)
- Apply HVAC Armor to condenser and evaporator coils

## Results

Final M&V Savings Calculation*		
(For the 60 Units Tested)	Projected	Actual
Annual Energy Savings	32,299 Kwh	62,091 Kwh
Annual \$ Savings	\$3,523.82	\$6,774.11
Additional savings from reduced maintenance and equipment life extension are expected but <b>NOT</b> included in the financials.		

## Measurement & Verification

M&V tests were conducted at eight facilities and included over 60 rooftop units. Savings were calculated and validate based on the true COP delta for pre- and post-treatment operations. Cooling load was measured in tons and reported as a percentage of unit rated capacity.

Enthalpy testing produced raw COP results. Savings calculations were normalized by correcting for the temperature differential of Outside Air, and the Temperature and Relative Humidity of Return Air at the Evaporator Coil for both pre- and post-environments.

## Summary



**Industry:** K-12 Education

**Location:** Jackson County, AL

**Project:** HVAC rejuvenation

**Installation types:**

Indoor, Outdoor,  
Ground, Ceiling, etc.

**Project cost:** \$270,850

**Annual savings:** \$67,741

**Before**



**After**



HVAC Armor offers state-of-the-art corrosion protection coatings and solutions that save energy, enhance performance, and rejuvenate HVAC equipment. HVAC Armor is part of ECM Holding Group, a collection of conservation technology firms serving North America's leading ESCOs and corporate clients. For more information, please visit [www.hvacarmor.com](http://www.hvacarmor.com), or call 920.267.6120.