

Case Study Report



Project Identification

Customer: Walmart
Location: Plainfield, Indiana

Design Specifications

Facility Warehouse 1,228,500' x 40' High
Winter Operation 65° – 0° Summer Operation 93° - 78°



Project Challenge:

To provide a system that could satisfy both heating needs in the winter and cooling needs in the summer. The customer wanted an energy efficient and cost effective alternative option to traditional Direct Fired Recirculation Makeup Air Units

Equipment Solution:

Air Energy Systems designed a system to use (18) ER-242-800 Rack Systems in conjunction with (40) 25 ton Roof Top Units. The Racks eliminate stratification by distributing the heating and cooling evenly throughout the facility using 594,000 cfm with only 31.5 hp.

Results of Rack System:

Walmart experienced Annual Savings totaling **\$234,000**:

- Electrical – 1,726,000 kW at \$.10/kW
- Natural Gas – 76,797 therms at \$.80/therm

Walmart saved \$.19/sf in operating costs

Walmart received engineer verified Electric and Gas Rebates:

- Vectren – Natural Gas– **\$50,000**
- Duke Energy – Electrical - **\$60,000**

