

## Case Study – ESM™

### Lancaster Foods

Business Type	Cold Storage
Location	Lancaster Foods is a free standing cold storage facility located in Jessup, Maryland.
A/C or Refrigeration	Refrigeration
Brand	Trenton
Type	Packaged refrigeration compressors
# of Units	3



### Result Highlights

**Return on Investment**  
23 Months

**Annual kWh Reduction**  
88,247 kWh

**kWh Savings**  
14.1%

**Greenhouse Gas Reduction**  
119,034 lbs

Evaluation Period	The two week evaluation was carried out thru July-Aug 2004 <ul style="list-style-type: none"> <li>• Energy Saving Module™ Off period, July 26, to August 1, 2004.</li> <li>• Energy Saving Module™ On period, July 19, to July 25, 2004.</li> </ul>
Project Description	Lancaster Foods is one of the largest wholesale produce and floral companies in the mid-Atlantic region of the US. The refrigeration plant tested at this location comprised of three Trenton packaged refrigeration compressors serving one of many cold storage chambers and maintaining an average temperature of 33 degrees F.  The electricity consumption of the refrigeration compressors were measured by data loggers.  Temperature loggers were also installed to measure and record the temperature of the cold storage chambers and ambient conditions.

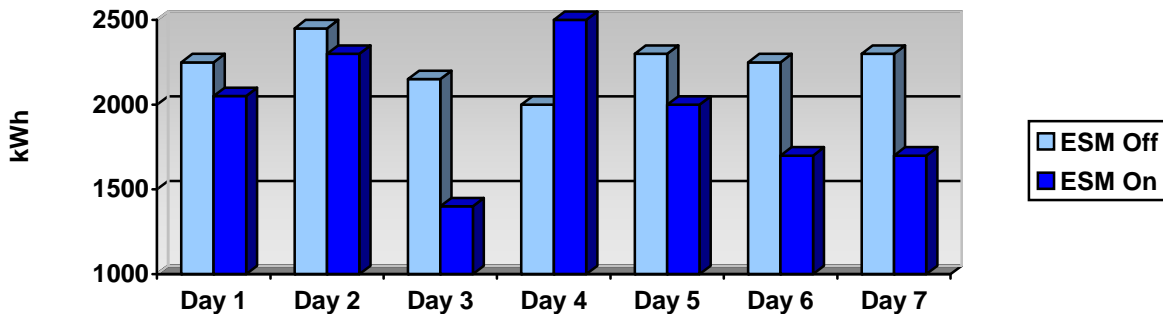
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### Results Summary

Results from the evaluation clearly demonstrate that the Energy Saving Module System™ significantly reduces kWh consumption providing both financial and environmental benefits without compromising temperature requirements of the cold storage facility.



### kWh Comparison



### Electricity Reduction

ESM OFF: Avg. Daily kWh	2277
ESM ON: Avg. Daily kWh	1955
Average Daily kWh Reduction	322
kWh % Reduction	14.14%
Annual kWh Reduction	88,247
Pay Back Period	23 Months

### Environmental Benefits

Greenhouse Gas Reduction	119,034 lbs
Tree Equivalent	65 Acres
Enough Electricity to Supply	8 homes