

Case Study – ESM System 4000

South Hills Country Club



Business Type	Recreation Club
Location	2655 South Citrus Avenue West Covina, CA
A/C or Refrigeration	A/C
Brand	Carrier
Type	1 Carrier 12.5 ton 2 compressor package unit and 2 Carrier 8.5 ton packaged units
# of Units	3

Result Highlights

Return on Investment
27 Months

Annual kWh Reduction
41,790 Kwh

Greenhouse Gas Reduction
91,245 lbs

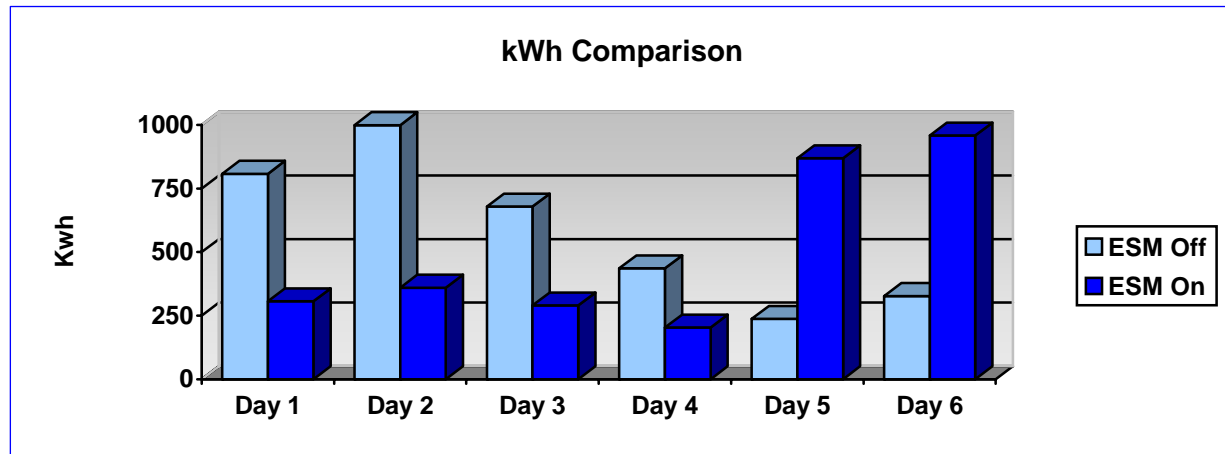
kWh Savings
20%

Evaluation Period	The performance evaluation was conducted over a two week period beginning March 28, 2003 and ending on April 11, 2003.
Project Description	<p>The Energy Saving Module System 4000 was installed on the air conditioning systems servicing the kitchen and main dining rooms of the South Hills Country Club.</p> <p>Energy data loggers were installed on the Carrier air conditioner servicing the kitchen and the two Carrier air conditioners servicing the main dining rooms to measure the kW, kWh, and Amps consumption of each compressor. Temperature loggers were installed to measure the ambient air and the return air temperatures.</p>

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Results Summary

The evaluation demonstrated an overall reduction in electricity consumption for the air conditioning of around 20%, clearly attributable to the installation of the Energy Saving Modules. This reduction in kWh equates to an annual saving of approximately \$7,000, while maintaining the required temperature conditions of the building.



Electricity Reduction	
ESM OFF: Avg. Daily kWh	581
ESM ON: Avg. Daily kWh	498
Average Daily kWh Reduction	83
kWh % Reduction	20% *
Annual kWh Reduction	41,790 *
Return on Investment	27 months

Environmental Benefits	
Greenhouse Gas Reduction	91,245 lbs
Tree Equivalent	8 Acres
Enough Electricity to Supply	14 Homes

* Ambient temperatures at the time of the evaluation greatly varied between the two weeks, "degree day" calculations were used to adjust the findings to better reflect "normal" conditions.