

Case Study – ESM™

Target St. Mary's

Business Type	Department store
Location	Village Shopping Centre, Australia, St. Mary's, NSW
A/C or Refrigeration	Air conditioning
Brand	Trane
Type	Semi-hermetic scroll
# of Units	4
Controller	Trane Controllers



Result Highlights

Return on Investment
22 Months

Annual kWh Reduction
178,522 kWh

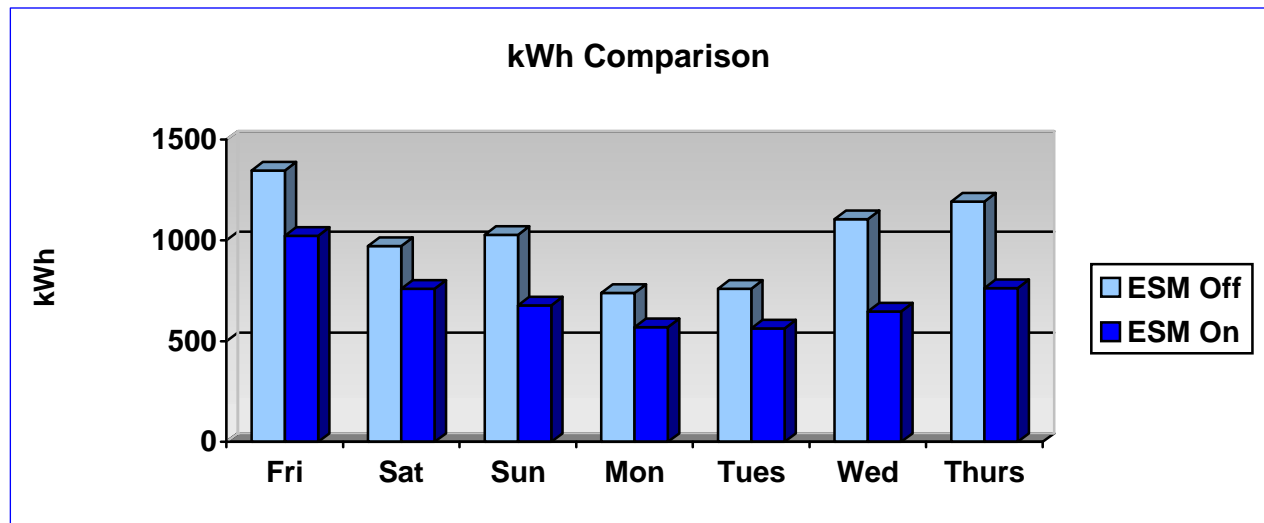
kWh Savings
30%

Greenhouse Gas Reduction
240,804 lbs

Evaluation Period	May 19 2006 – June 2 2006.
Project Description	<p>The performance evaluation was conducted over a two week period, with energy and temperature data loggers installed to monitor and record consumption and temperature data.</p> <p>During the evaluation period, the Energy Saving Modules™ were switched between Saving mode (ESM™ ON) and By Pass mode (ESM™ OFF), at weekly intervals to obtain a comparison of the power consumption and determine the cost reduction. ESM™ OFF periods ran from 18 May to 26 May. A total evaluation period of seven days was recorded. ESM™ ON periods ran from 26 May to 02 June. A total evaluation period of seven days was recorded.</p> <p>Energy data loggers were installed on the air conditioning system to measure and record the kW, and kWh, consumption of the air conditioning system throughout the evaluation period. The data loggers take a measure each 8 seconds and are set to provide a date stamped print every 2 minutes.</p>

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Results Summary	<p>Overall, a 30% reduction in electricity consumption of the air conditioning system was recorded, due to the installation of the ESM System™. This 30.00% reduction equates to an annual reduction of over 178,522 kWh providing and a return on investment of 22 months for Target.</p> <p>Results from the evaluation clearly demonstrate that the Energy Saving Module™ significantly reduces kWh consumption providing both financial and environmental benefits for Target, without compromising temperature requirements of the store.</p>
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Electricity Reduction	
ESM OFF: Avg. Daily kWh	1,020
ESM ON: Avg. Daily kWh	715
Average Daily kWh Reduction	305
kWh % Reduction	30%
Annual kWh Reduction	178,522
Return on Investment	55%
Pay Back Period	22 months

Environmental Benefits	
Greenhouse Gas Reduction	240,804lbs
Tree Equivalent	131 acres
Enough Electricity to Supply	17 homes