

# EDC/SaveGas Property Commissioning Report

Report Creation: 7/9/2011 9:57:20 AM



Client: Maha Shiv Shakti Corp

Property: Holiday Inn Express & Suites

PropID: 3167

Initial State: Property has (2) Boiler systems each covering 1/2 of the facility. Each of the boiler pairings consists of dual commercial water heaters. Upon installation the Water Heaters were operating in standard operation using standard set points.

Steps Taken: EDC controls are installed and the standard operating temperatures are monitored for a period of time to establish baseline data. During the monitoring period we identified that each boiler pairings had a different set of heater set points, so they were not working in parallel to meet the demand. The Initial objective was to balance the boilers, than to apply an operational profile to achieve savings. Note, the recirculating loop temperatures look good.

End Result: The heater pairings were balanced and the EDC control was put into savings mode providing temperature modulation depending on the time of day and demand. Significant savings are achieved and realized.

Summary: System is now operating as efficiently as possible. Both heater pairings are operating in tandem to share the load and as a result 24%+ savings is achieved and sustained. In addition the overall load is balanced which will provide for equipment longevity in addition to savings.

% Saved: 24.75 %

Illustrations of Process:

## Economics for Both Heater Pairings: 24.75 savings more than \$2,000 annually

utility cost of gas: 0.9233 cost of gas used for analysis: 0.9233 nameplate burn ratio: 1.0

Manuf	Device Name	Name Plate BTUs	Adj Therms Per Hr	Hrs Day DS1	Hrs Day DS2	Therms Day DS1	Therms Day DS2	Therms Saved Mth	% Saved	Therms Saved Yr	Dollars Saved Mth	Dollars Saved Yr
State	WH/1 - Stage 1	275000	2.75	3.11	1.92	8.55	5.29	98	38.2 %	1,191	\$90.37	\$1,099.50
State	WH/2 - Stage 1	275000	2.75	2.30	1.81	6.32	4.97	41	21.4 %	494	\$37.45	\$455.66
					<b>Total</b>	<b>14.87</b>	<b>10.26</b>	<b>139</b>	<b>31.0 %</b>	<b>1,685</b>	<b>127.82</b>	<b>1,555.16</b>

Manuf	Device Name	Name Plate BTUs	Adj Therms Per Hr	Hrs Day DS1	Hrs Day DS2	Therms Day DS1	Therms Day DS2	Therms Saved Mth	% Saved	Therms Saved Yr	Dollars Saved Mth	Dollars Saved Yr
State	WH/1 - Stage 1	275000	2.75	2.64	1.28	7.26	3.51	112	51.6 %	1,368	\$103.85	\$1,263.49
State	WH/2 - Stage 1	275000	2.75	0.72	1.47	1.99	4.03	-61	n/a	-747	-\$56.66	-\$689.41
					<b>Total</b>	<b>9.25</b>	<b>7.54</b>	<b>51</b>	<b>18.5 %</b>	<b>621</b>	<b>47.19</b>	<b>574.08</b>

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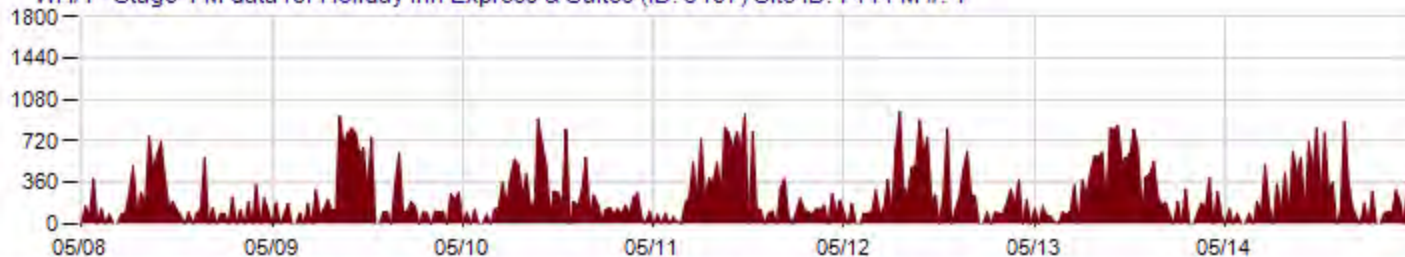


## Monitor Mode Heater Pair 1, Heaters in standard operation

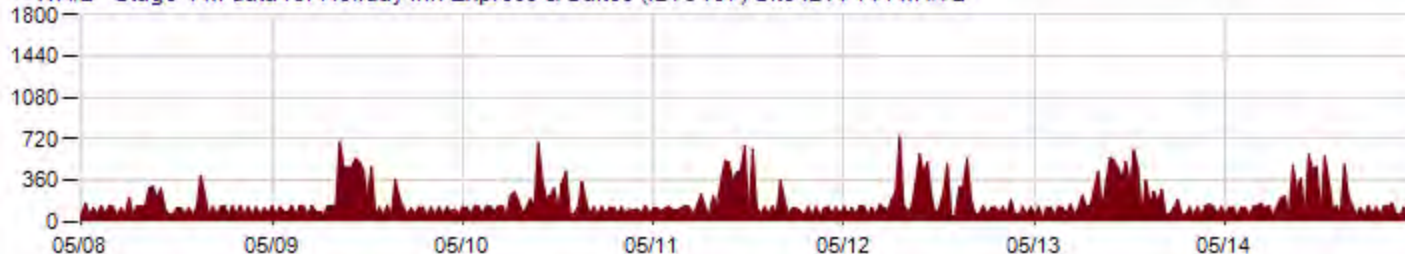
Delivery 1 T data for Holiday Inn Express & Suites (ID: 3167) Site ID: 7414 T #: 1



WH/1 - Stage 1 M data for Holiday Inn Express & Suites (ID: 3167) Site ID: 7414 M #: 1



WH/2 - Stage 1 M data for Holiday Inn Express & Suites (ID: 3167) Site ID: 7414 M #: 2



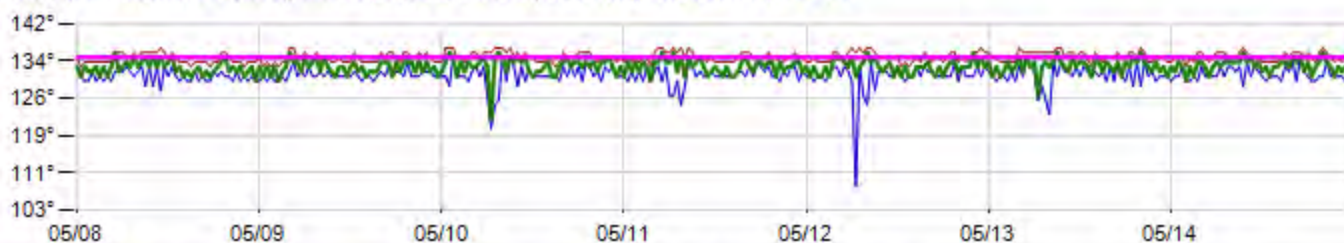
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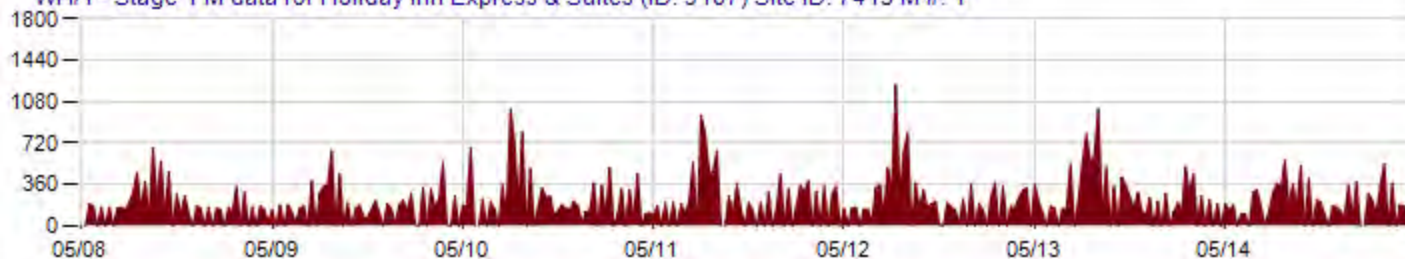


## Monitor Mode Heater Pair 2, Heaters in standard operation

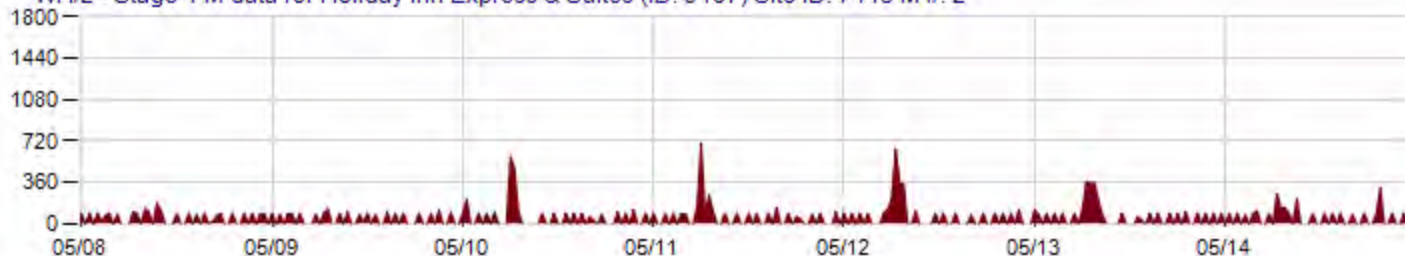
Delivery 1 T data for Holiday Inn Express & Suites (ID: 3167) Site ID: 7415 T #: 1



WH/1 - Stage 1 M data for Holiday Inn Express & Suites (ID: 3167) Site ID: 7415 M #: 1



WH/2 - Stage 1 M data for Holiday Inn Express & Suites (ID: 3167) Site ID: 7415 M #: 2



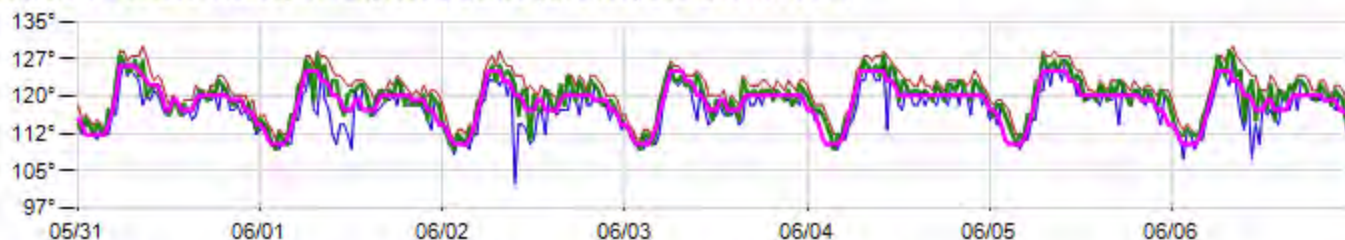
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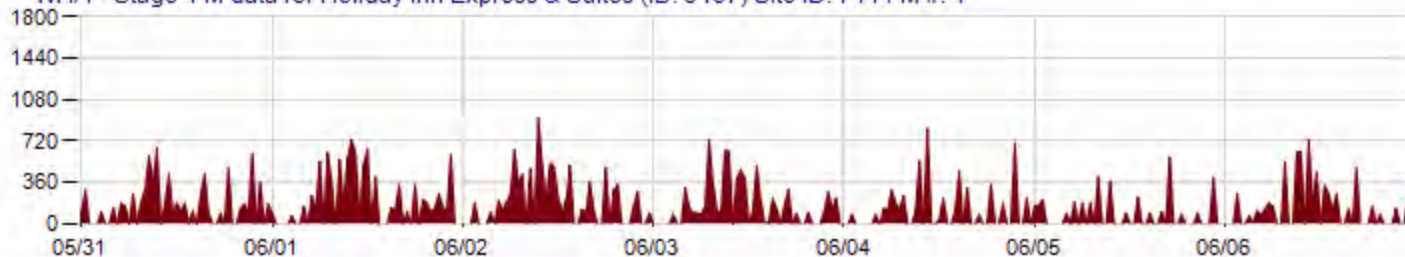


## Control Mode Heater Pair 1, Heaters operation is balanced and profiled for demand

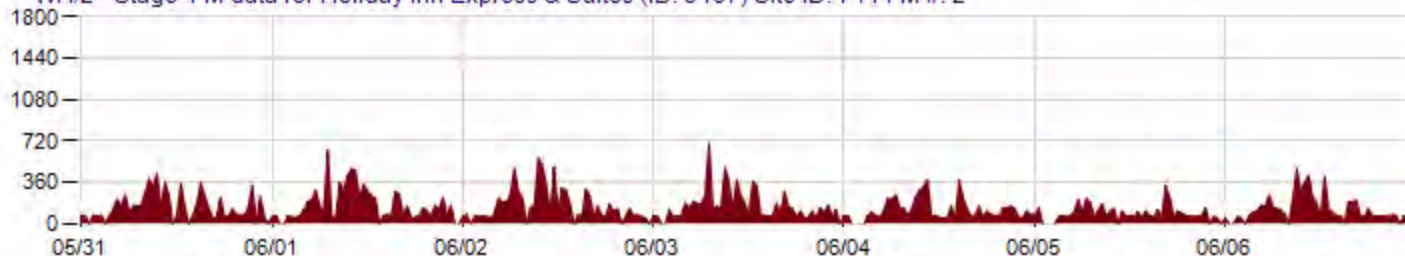
Delivery 1 T data for Holiday Inn Express & Suites (ID: 3167) Site ID: 7414 T #: 1



WH/1 - Stage 1 M data for Holiday Inn Express & Suites (ID: 3167) Site ID: 7414 M #: 1



WH/2 - Stage 1 M data for Holiday Inn Express & Suites (ID: 3167) Site ID: 7414 M #: 2



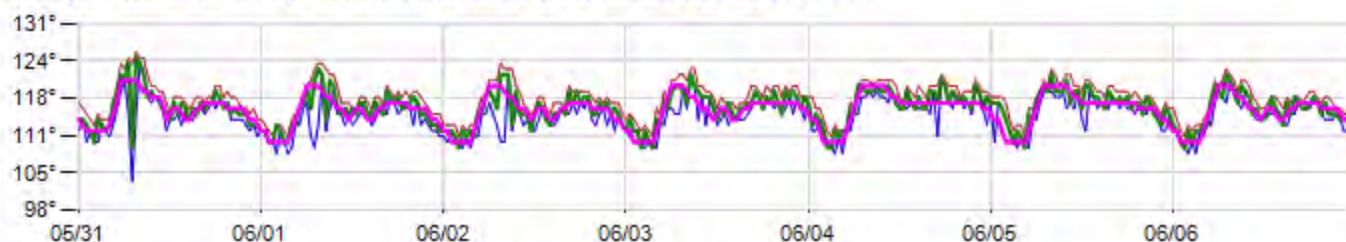
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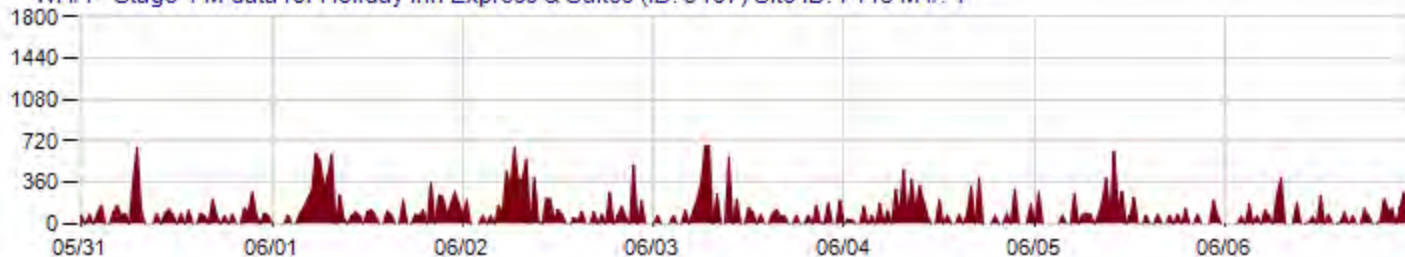


## Control Mode Heater Pair 2, Heaters operation is balanced and profiled for demand

Delivery 1 T data for Holiday Inn Express & Suites (ID: 3167) Site ID: 7415 T #: 1



WH/1 - Stage 1 M data for Holiday Inn Express & Suites (ID: 3167) Site ID: 7415 M #: 1



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