

REDUCING HOTEL'S BOILER LOAD & GAS BILL

Location Rotorua, New Zealand
Industry Building Maintenance
Client Holiday Inn

OVERVIEW

HMA Instrumentation recently offered the Holiday Inn Rotorua a free of charge trial of the Fireye NXM2G Intelligent Boiler Load Controller. The NXM2G measures the supply and return temperatures of a hot water boiler systems via digital sensors and monitors the "call for heat". The sensors were installed externally and are non intrusive.

On first firing the boiler reached its normal thermostat set point and turned off. During the next and subsequent stages the NXM2G checks:

- The "call for heat"
- If the boiler supply and return temperatures were within the designed temperature differential settings
- If the boiler was required to fire, based on control algorithms

The NXM2G holds the boiler from firing based on temperature and time.

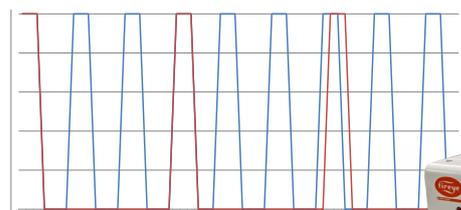
Graph 1 shows the number of times the boiler fired per hour. The blue line shows the boiler without the NXM2G and the red line shows the boiler with the NXM2G installed.

Graph 2 shows the hotel's gas meter reading (Blue) vs the gas suppliers meter readings (Red) vs the number of occupants (Green). A clear reductions in gas usage is seen between the trial dates of 15th December 2014 and 12th April 2015.

The hotel also utilises geothermal heating as another source of hot water however the NXM2G unit was installed on the hotel's gas hot water boiler number 1. The second lag boiler was deactivated for the trial period. The gas boilers are utilised primarily for the guest room's hot water and laundry services.

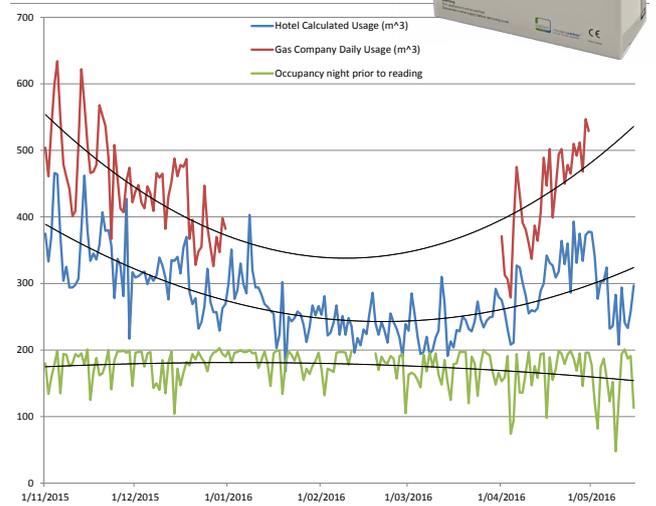
APPLICATIONS

Other applications for the NXM2G include, Hotel, Hospital, Commercial & Laundry Hot Water Boilers.



Graph 1

Graph 2



SUMMARY

The Fireye NXM2G Intelligent Boiler Load Controller significantly reduced gas usage during the trial period while average hotel occupancy was maintained.

- Reduced boiler cycling and inherent maintenance costs by a factor of 3.
- Monthly gas bill savings of 15% to 40%
- Return on investment of 8 months