2016 LEED Performance

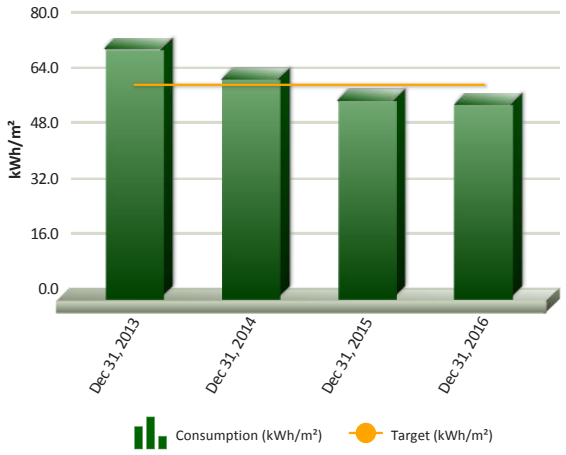
Reliable Controls Corporation - South Annex

Reliable Controls has occupied the LEED platinum South annex for over four years, with a steadily growing number of occupants. During that period, many improvements have been made to the sequence of operation of mechanical and electrical systems. The flexibility of the MACH-System means that changes are easy to implement, and the results are easy to monitor.

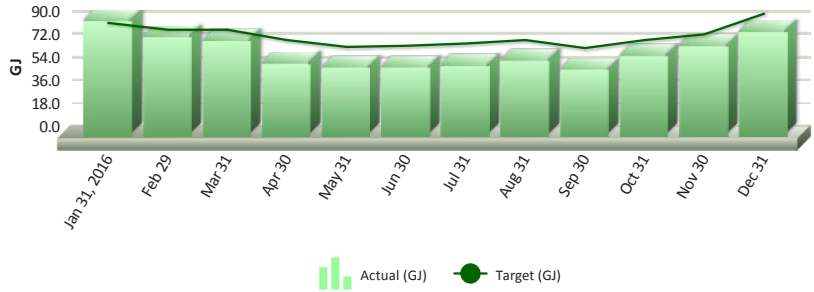
The chart to the right shows the total energy consumed, expressed in units of Energy Use Intensity (EUI). In 2016, the downward trend in EUI continued, ending with **56.1** kWh/m2 a slight reduction over 2015.

But now the 'low hanging fruit' has all been picked, and the building is approaching full occupancy. This year, we need to find more innovative strategies to maintain the downward trend in energy consumption.

Energy Use Intensity

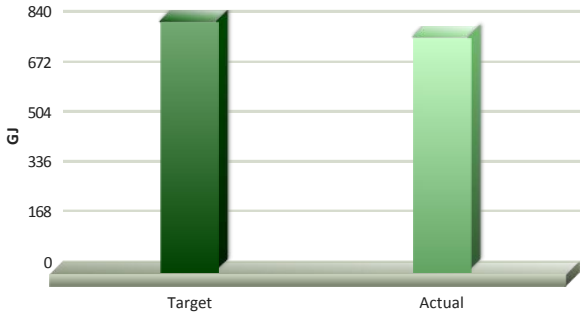


Monthly Energy Consumption



01 Jan 2016 - 31 Dec 2016

Energy Consumption vs Target

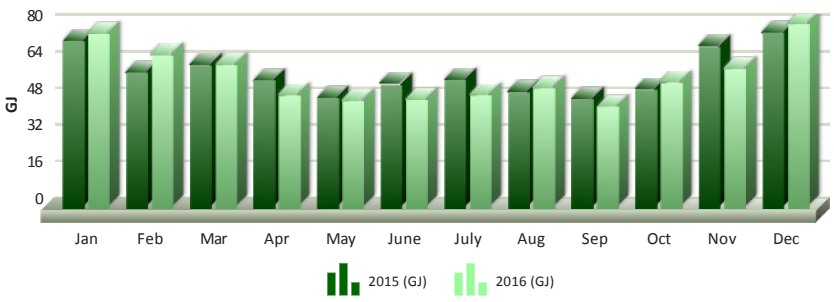


Reliable Controls MACH system calculates a daily target for energy consumption, based on 50% of ASHRAE standard 90.1, adjusted for actual heating and cooling degree days. Standard 90.1 is used to predict the energy consumption of an energy efficient building in our geographical region.

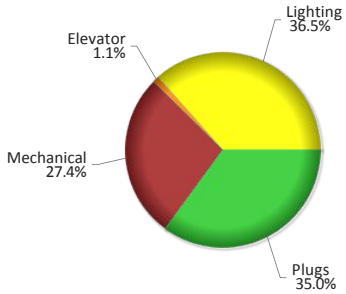
Year to date for 2016, the actual energy consumed is 48% of ASHRAE 90.1.

In simple terms, the South Annex uses less than one half the energy of an energy efficient building!!!

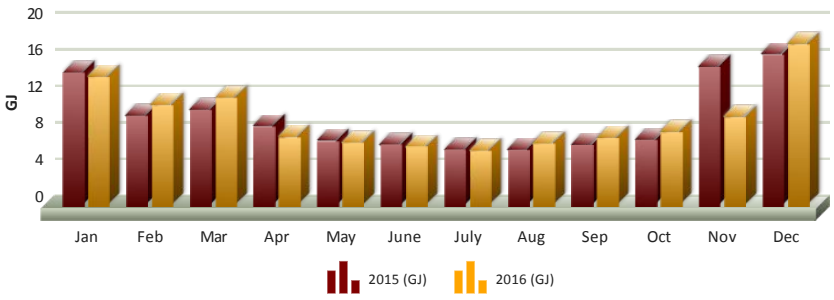
Electrical Consumption 2015 vs 2016



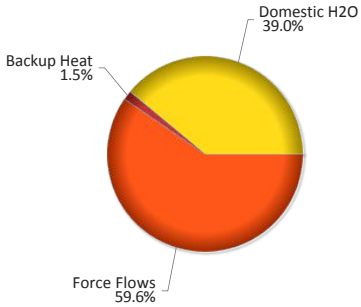
Electrical Consumption Breakdown



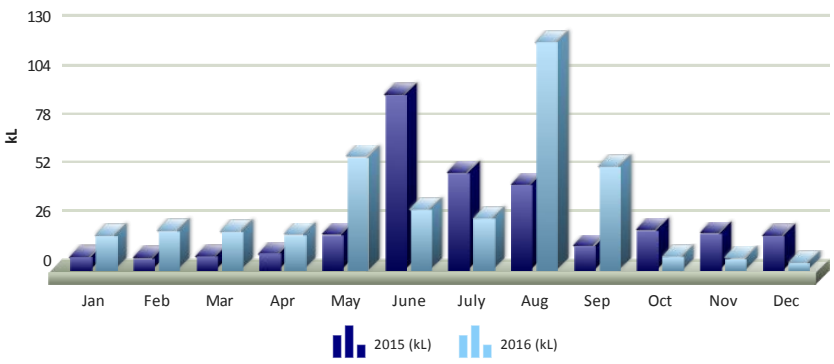
Gas Consumption 2015 vs 2016



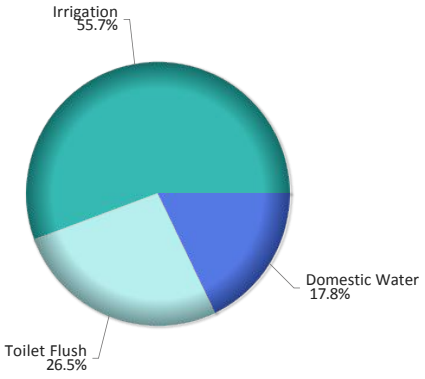
Gas Consumption Breakdown



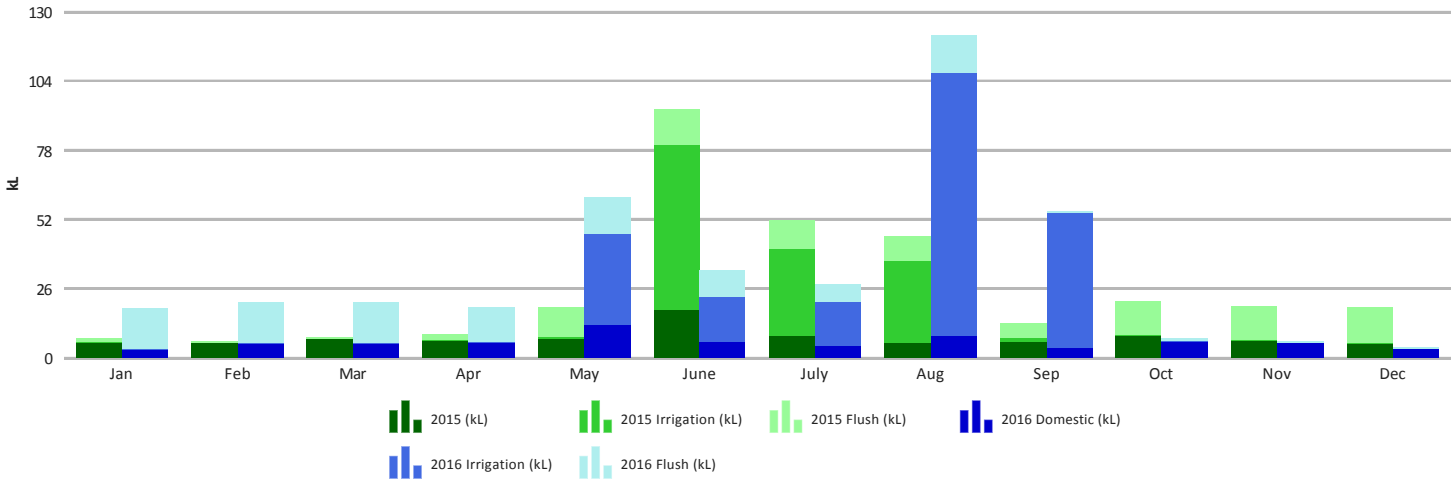
Potable Water Consumption 2015 vs 2016



Potable Water Consumption Breakdown



Potable Water Comparison
2015 vs 2016



Potable water usage through the first four months of winter increased dramatically compared to 2015, due to the failure of both pumps in the flush cistern. Normally we would use one hundred percent rainwater to flush toilets during the winter months, however the pump failures forced us to use one hundred percent potable water. Repairs were complete by mid-April....just before onset of the dry-season!

By October 2016, water consumption was back on track, with both cisterns full, and all pumps back to regular operation. In 2017, we expect to show a dramatic reduction from 2016 potable water consumption.