

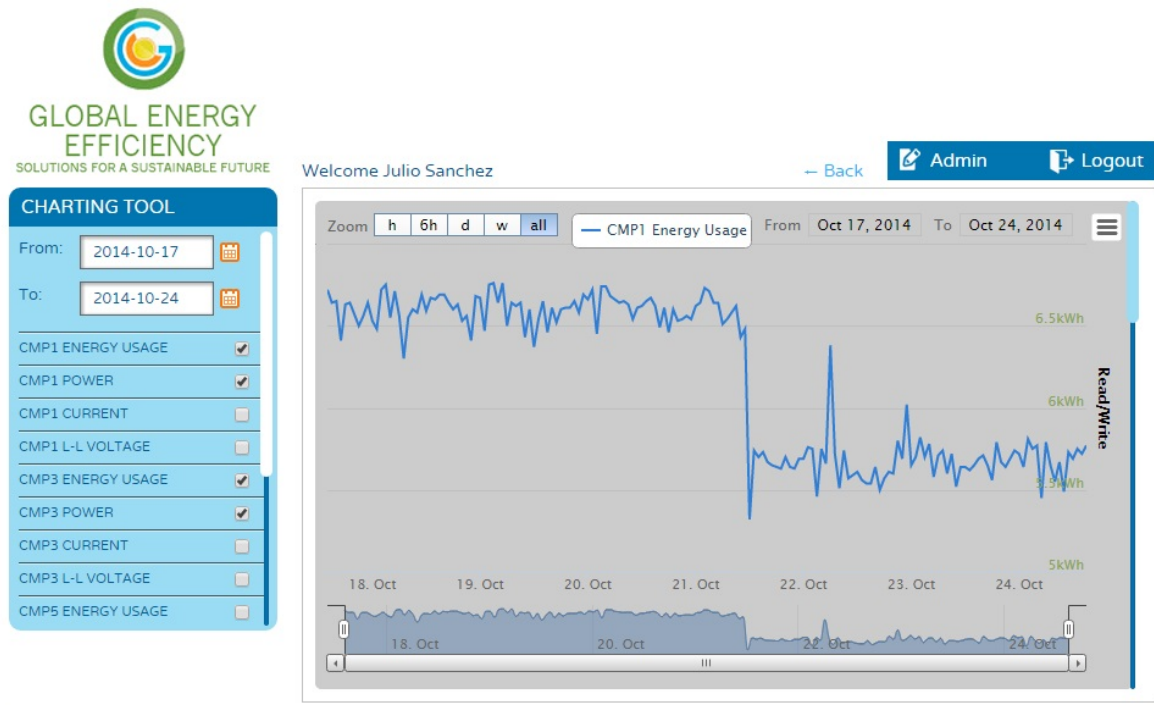
Intellidyne Pilot Installation

The purpose of this report is to demonstrate the results of the pilot installation of the Intellidyne RU unit at a client's facility. The client's has a compressor rack system of 6 units. These are the installation conditions and parameters:

- 4 compressors were monitored using connect control.
- Compressors are being monitored satisfactory from October 10, 2014.
- Intellidyne was installed on October 21, 2014.
- 2 RU units installed.
- 1 unit was installed in a compressor that was always ON; the other unit was installed in a half cycle compressor (stays on/off 50%, estimated).
- The full cycle compressor (the one that is always ON) will be called CMP1, while the half cycle compressor will be called CMP3.

Results

CMP1

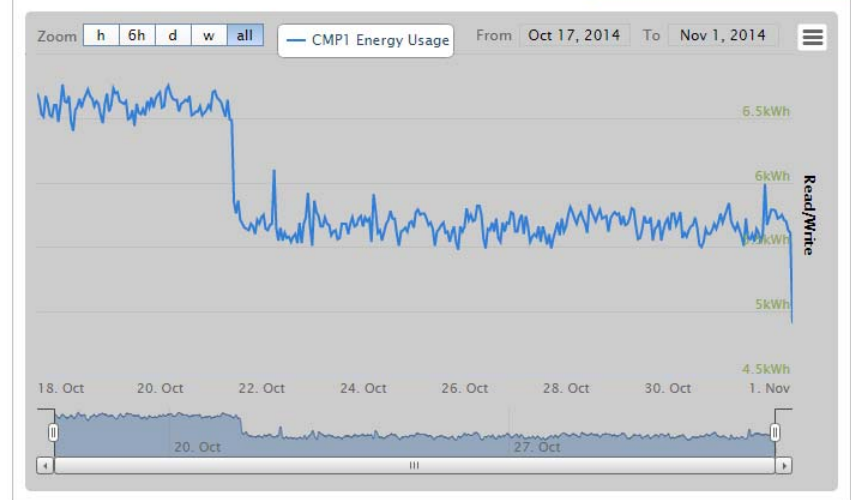


CHARTING TOOL

From: 2014-10-17

To: 2014-11-01

- CMP1 ENERGY USAGE
- CMP1 POWER
- CMP1 CURRENT
- CMP1 L-L VOLTAGE
- CMP3 ENERGY USAGE
- CMP3 POWER
- CMP3 CURRENT
- CMP3 L-L VOLTAGE
- CMP5 ENERGY USAGE



Above are the energy usage plots for CMP1. As the plot shows, before Intellidyne was installed (18Oct-21Oct), the energy consumption was in within the 6.5kWh. The average energy consumption for CMP1 is around 6.6kWh. After Intellidyne was installed (from 22 Oct), we can notice a significant reduction in the energy consumption. The estimated average energy consumption is around 5.7kWh. This is a **13.6%** energy reduction.

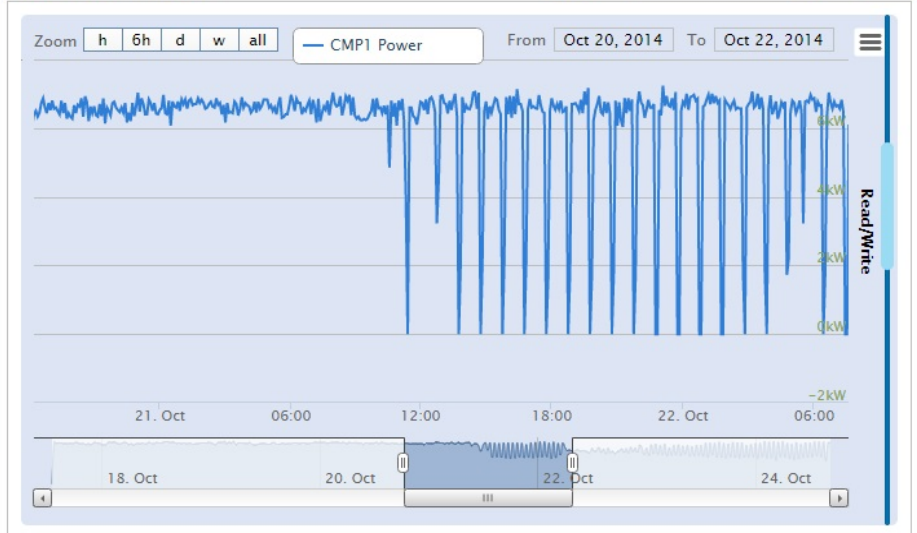


CHARTING TOOL

From: 2014-10-17

To: 2014-10-24

- CMP1 ENERGY USAGE
- CMP1 POWER
- CMP1 CURRENT
- CMP1 L-L VOLTAGE
- CMP3 ENERGY USAGE
- CMP3 POWER
- CMP3 CURRENT
- CMP3 L-L VOLTAGE
- CMP5 ENERGY USAGE



The figure from above is the power plot for CMP1. This plots shows the runtime of the compressor (when is ON/OFF). Before installing Intellidyne, the compressor runs all the time with an average power of 6.3kW. After Intellidyne is installed, we can notice a periodic runtime; the compressor stays on for a period of time and then goes off for a specific period of time, the cycle is then repeated. When a compressor is always ON, Intellidyne automatically reduces the run on time by 15% of an hour (9 minutes), meaning that the compressor will stay ON for 51 minutes and then will go OFF by 9 minutes each hour.

CMP3



This is the energy usage plot for CMP3. Since the runtime of the compressor is not accurate, we assumed that this is a 50% cycle compressor (stays on 50% of the time and off 50% of the time). Based on the plot; the max and min peak of CMP3 before Oct 21 is 5.16kWh and 1.06kWh, for an average of 3.05kWh. After Oct 21, the max and min peaks are 4.76kWh and 0.19kWh, for an average of 2.285kWh. There is a reduction percentage of **25%**.