----- Original Message -----
From: Rick Bofinger
To: 'Matt Ross'
Cc: 'MacWord'
Sent: Wednesday, September 10, 2008 11:08 AM
Subject: Demand Buster

Dear Matt:

We are a mechanical contractor in Northern California that uses a number of techniques to reduce energy use. We recently completed a test of the Thermal Flow "Demand Buster" cooling tower on a Home Depot. I am attaching a report that is getting a lot of notice. We achieved a 28.9% reduction in peak demand, and a 55% reduction in kWh, while actually INCREASING the capacity of the a/c unit.

We were able to retrofit and downsize the compressors due to the increased cooling capacity created by the Thermal Flow Demand Buster addition, but we estimate that 75% of the energy savings would have been achieved with the Demand Buster alone.

We have also used this product on low temp refrigeration systems with excellent results. I am attaching the Home Depot report for your consideration, as well as a couple of pictures of the installation.

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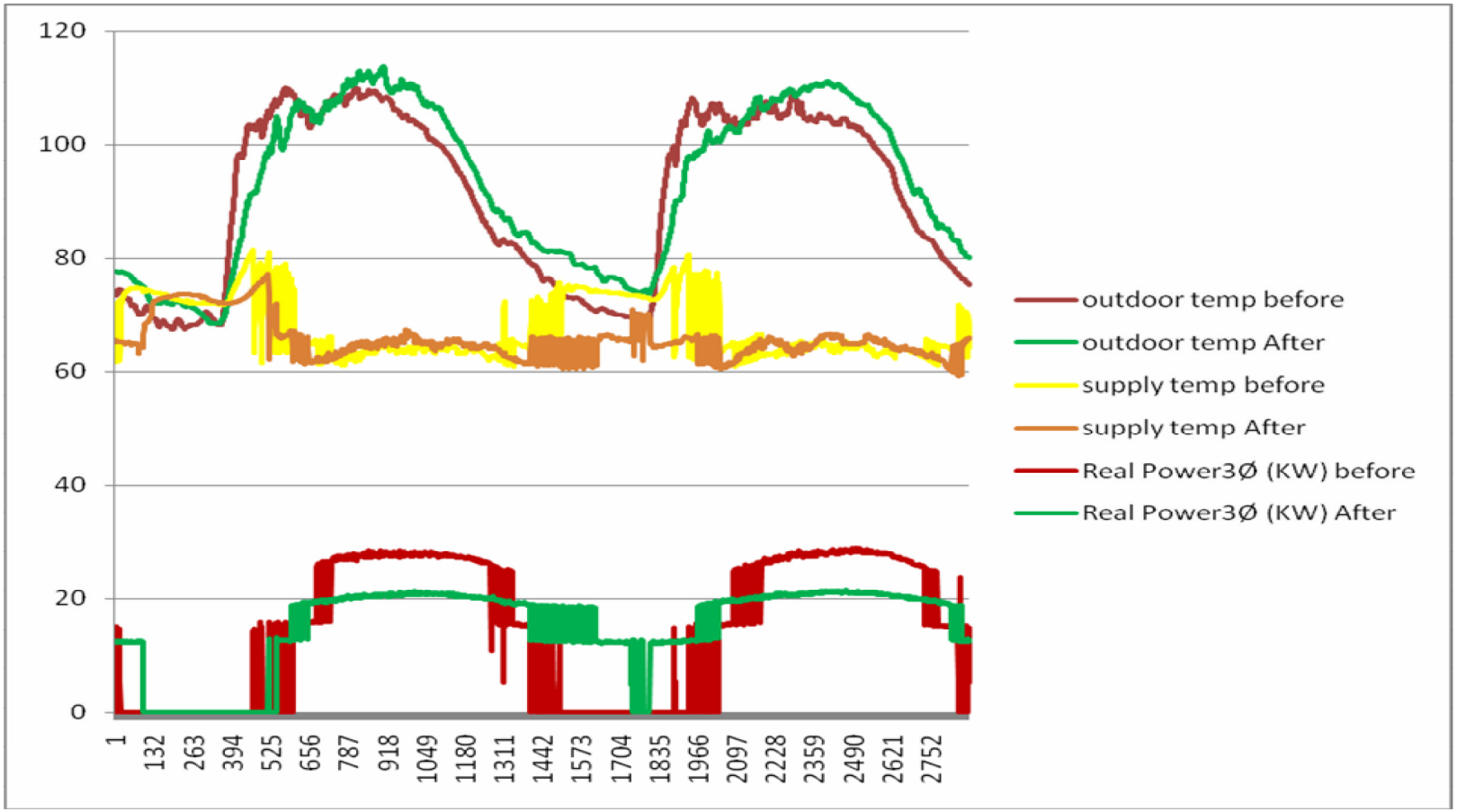
Big Box Retailer

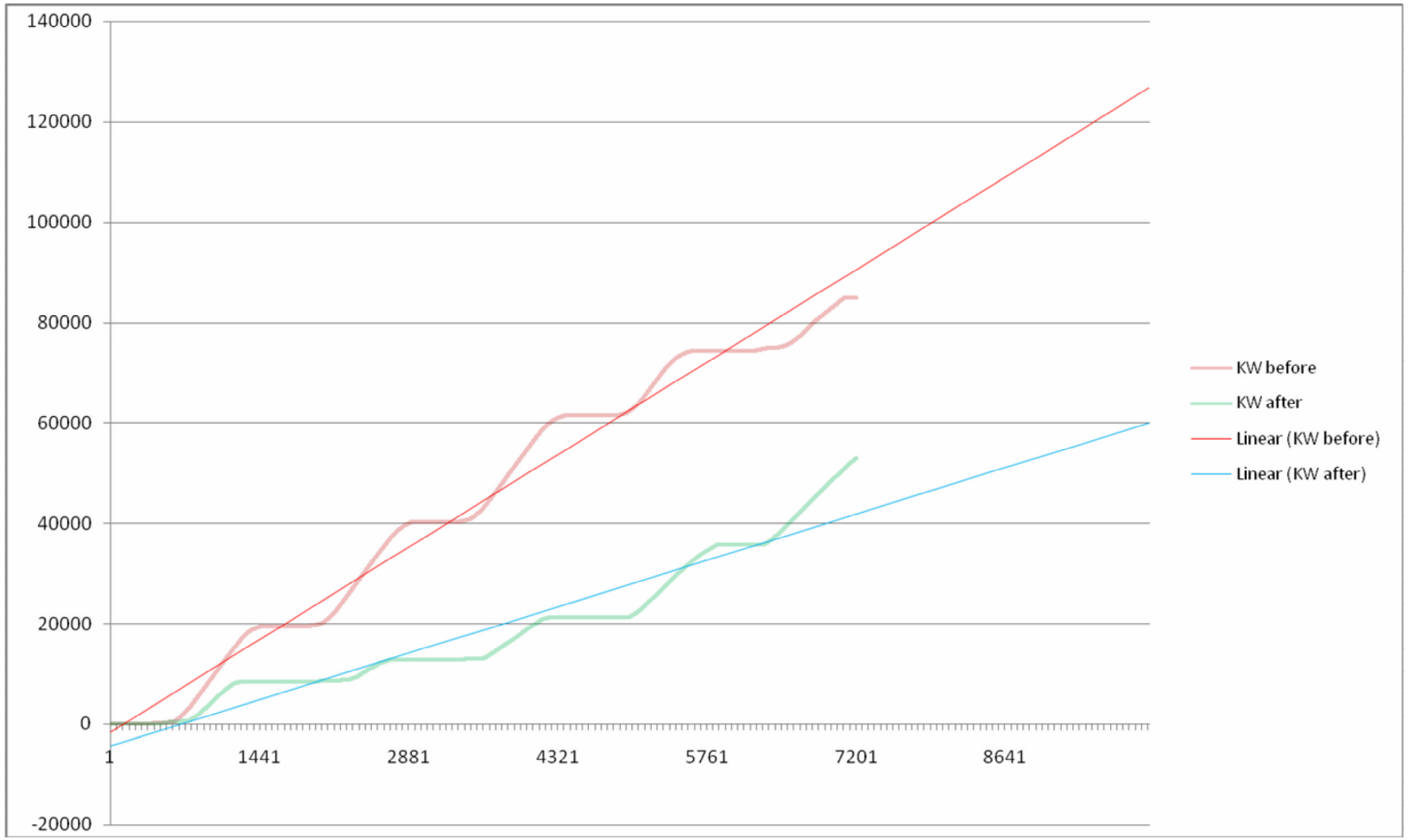
Two Day Before Retrofit & Two Day After Retrofit Comparison



Numbers across bottom are minutes (1440=1 day)

Big Box Retailer

5 Days kW Accumulation



Numbers across bottom are minutes (1440=1 day)

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I am forwarding to you charts that show the energy savings we achieved at a Big Box retailer on their almost new Trane 20 ton air condition.

Peak reduction was 28.9%
kWh reduction was in excess of 50%

The data we collected was reviewed by Optimized Energy, a Roseville Electric sub contractor. I want to cover some facts that are represented in the data and on the charts that needs to be understood.

Linear Chart

The linear chart (straight and wavy lines inclining to the right) simply shows the actual accumulation of kW as the system ran for 5 days during average to hot weather. Our summer has been very mild this year.

1. The red line (pre-retrofit data) was actually cooler weather, it was measured in May. The post retrofit data (blue lines) was measured in July. The hottest pre-retrofit day was 100.7 degrees on the roof, the hottest post retrofit day was 107.0 on the roof.

2. If you follow the trend out to 7 days, the energy saved was in excess of 50%. Based on Roseville electric's numbers, this store spent $172,804 on power in 2007, and $200,590 the previous year which was a hotter summer. Since we demonstrated a reduction in demand of 28.9% and kWh by over 50%, we anticipate that we can impact the total electrical cost for the store very measurably. Knowing the amount of power used for other demands (lighting, equipment, etc.) would be necessary to determine the total bill reduction.

3. The horizontal runs on the wavy lines indicate the unit running in economy mode with no compressors, just pulling in outdoor air at cool periods, and confirms proper operation of economizers.

Temp/Power Comparison Chart

This chart shows two hot days temperature (about 100 degrees). Reds and yellow are before retrofit, green and blue are after. The legend to the left accurately defines temperature at the top of the chart and power at the bottom of the chart.

The bottom chart shows run time and power consumed in kW.

The top blue line on top indicates that we maintained a lower supply/discharge air temperature. The bottom green line indicates that we used substantially less energy to accomplish that work. The bottom chart shows peak energy used, and the staging of the two compressors. Two compressors operation is indicated by the thick lines in the bottom chart running from about 15 to 28 on red and 13 to 19 on green. You can notice the dropping out of the second stage compressor by the thick vertical lines. The elevated thin green line in day two indicates stage two was required more constantly. The taller lines indicate a compressor coming on or dropping off. All these charts were pulled from raw data, there are NO interpretive calculations used.

Bear in mind that this was almost brand new equipment. We can achieve these same savings on 30 year old equipment. On stores with older equipment, you will recognize a much greater energy reduction since the old units that are so prolific have piston compressors that we would change out to more efficient scrolls. As long as the air handler section is in good condition, which is usually the case, there is no need to change the entire unit to get energy savings.

I invite you to view our new website, that summarizes the new services and products we are pioneering. www.jericoenergy.com

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July 18th, 2008

This is photos of a Big Box retailer's 20 ton Trane a/c that we did a number of energy retrofits to. We achieved 28.9% reduction in peak energy demand and 55% reduction in kWh use under almost identical conditions.

Following is the photographs of what we have done to the Trane 20 ton, and what we propose to do to the remaining 4ea. Lennox 20 ton units, the computer room a/c, and the break room a/c. This tower is adequate to handle the additional existing a/c's.

The complete project with tower to the left.

Original Compressors.

Downsized scroll compressors.

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Each evaporator will gains capacity of about 24%, so two 10 evaporators will produce far more cooling in extreme weather than they are rated for.

This conversion can be done with almost no interference to store operations.

I welcome your questions,

Rick Bofinger