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June 22, 2009

Dan Coughlin
Phillips Seaview Tower
206 First Avenue
Asbury Park, NJ 07712

Dear Dan Coughlin:

This is our report on the energy monitoring and lighting survey we performed at the Philips Seaview Tower, 206 First Avenue, in Asbury Park, NJ.

The purpose of this study was to determine the energy consumption of the lighting circuits serving floors 2 and 3 and to determine the difference. Spot measurements were also performed of lighting levels at typical locations on both floors to document lighting output performance.

The 2nd floor was recently retrofitted using Global Marketing Lighting LLC, LED Retro8(tm) 12 watt lamps (Contact: Info@LedRetro8.com www.LEDRetro8.com or 800-969-2518 for product specifications).

The lighting retrofit was completed by the manufacturer's certified and NJHMFA approved Electrical Contractor Evco Mechanical Corp. (Contact: Energy@EvcoMechanical.com www.EvcoMechanical.com or 973-324-7000 for installation certification requirements and NJHMFA programs).

The 3rd floor is identical to the remaining common area floors and has T12 40 watt fluorescent lamps installed. The floors being studied and the common area lighting of all floors operate full time (24 x 7). The 2nd and 3rd floor lighting circuits were confirmed to be fed from the 3rd floor lighting panel by physically switching the circuits off/on. The lighting circuits studied were also confirmed to operate only the lights being studied and that each circuit has the same number of fixtures.

We installed a Dranetz Model 4300 Power Quality Analyzer to monitor each of the 120 volt lighting circuits for the period between Wednesday May 13th (3:35PM) and Tuesday May 19th (10:05AM), 2009. The instrument recorded the phase-to-neutral voltage, phase current, and active power (kW) every 15 minutes, and also measured the integrated energy usage (kWh) over the entire recording period. The LEM Flex current transformers used had an accuracy of plus or minus 0.3 amperes for 30 ampere range. For the metering timeplots attached, Channel A represents second floor data and Channel B represents third floor data.

Lighting levels were measured with a Greenlee Digital Light Meter Model 93-172.

Representative photographs of the lighting on the 2nd and 3rd floors and the Dranetz meter installed to monitor the lighting circuits are attached.

Light Level Measurements

All light levels were measured at 5' above the finished floor.

The 2nd floor has LED lights. On the second floor directly under the light at Apt. G, we measured 15.5 foot candles. Moving down the hall in between the first and second lights, we measured 4.4 foot candles. Going further down the hall to the second light, we measured 15.1 foot candles.

The 3rd floor has fluorescent lights. On the third floor directly under the light at Apt. G, we measured 14.9 foot candles. Moving down the hall in between the first and second lights, we measured 4.1 foot candles. Going further down the hall to the second light, we measured 15.0 foot candles.

There was no major difference in measured foot candle level for the two types of lighting.

Energy Usage Measurements

Based on the attached integrated timeplot, the 2nd floor lighting circuit consumed $49.21 - 12.69 = 36.52$ kWh and the 3rd floor lighting circuit consumed $242.3 - 66.62 = 175.68$ kWh over the 5.774 day recording period. The hourly average power would then be:

$$\begin{aligned} 36.52 \text{ kWh} / (5.774 \text{ days} * 24 \text{ h/day}) &= 0.264 \text{ kW for the 2}^{\text{nd}} \text{ floor.} \\ 175.68 \text{ kWh} / (5.774 \text{ days} * 24 \text{ h/day}) &= 1.268 \text{ kW for the 3}^{\text{rd}} \text{ floor.} \end{aligned}$$

Based on two electric bills we have for the Philips Seaview Tower for the periods Mar 26 to Apr 23, 2009 and Jan 27 to Feb 25, 2009, we calculate an "overall" charge of $\$13,575.85 / 86,880 \text{ kWh} = 0.1563$ \$/kWh and $\$12,177.81 / 79,040 \text{ kWh} = 0.1541$ \$/kWh respectively.

Applying the smaller of the two "overall" charges as a conservative measure, the estimated cost to operate the 2nd and 3rd floor light circuits for one year would be:

$$\begin{aligned} 0.1541 \text{ \$/kWh} * 0.264 \text{ kW} * (365 \text{ days} * 24 \text{ h/day}) &= \$356.38 \text{ for the 2}^{\text{nd}} \text{ floor} \\ 0.1541 \text{ \$/kWh} * 1.268 \text{ kW} * (365 \text{ days} * 24 \text{ h/day}) &= \$1711.69 \text{ for the 3}^{\text{rd}} \text{ floor} \end{aligned}$$

The anticipated annual reduction is \$1,355.31

Reflecting a 79% Savings on Energy Cost!

Note that this does not take into consideration any savings that will result from the reduced demand charges, reduced maintenance costs or the reduced heat load (LED lights run cool) etc. This is purely an energy savings cost reduction.

Thank you very much,

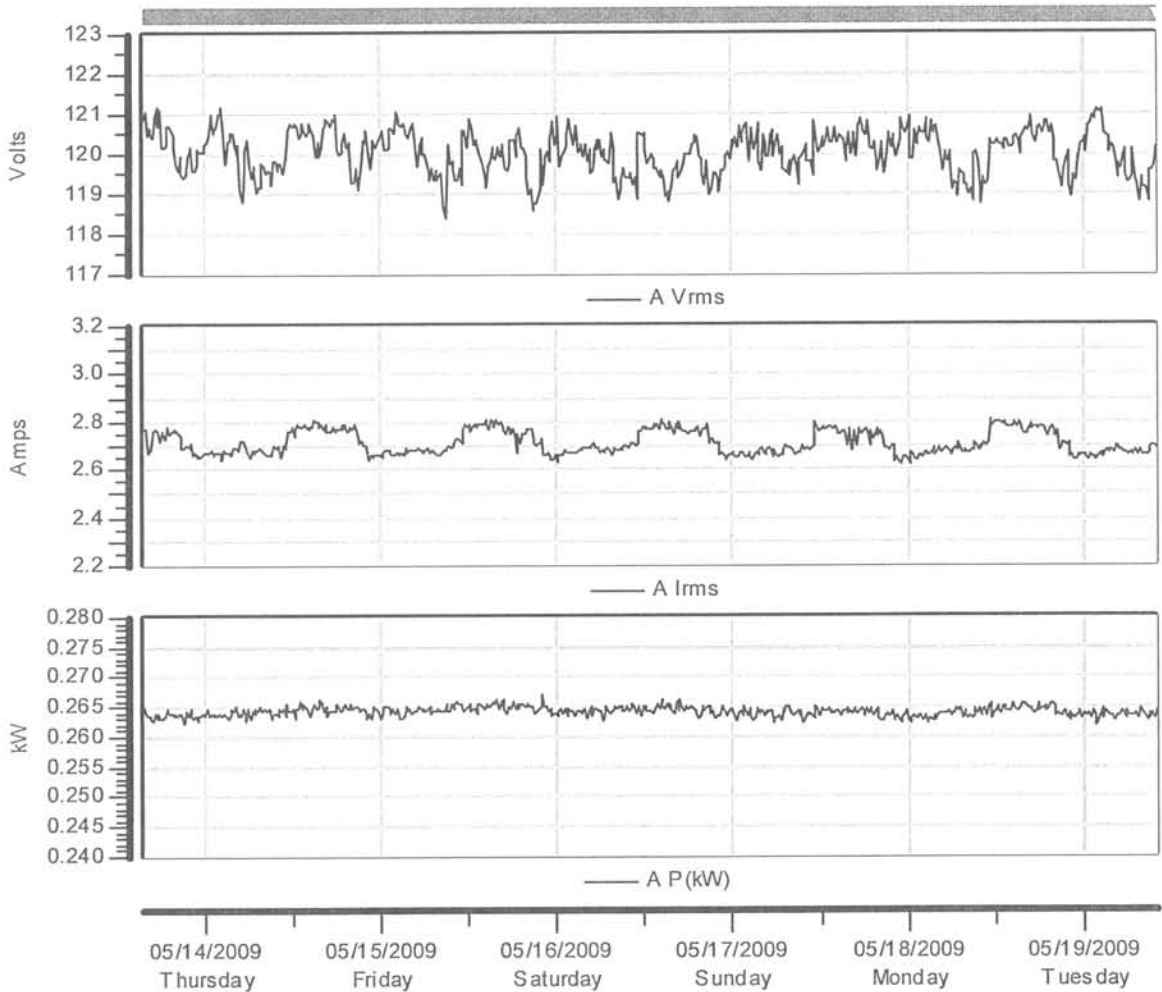
Tony Sinacore
Applications Engineer

2nd Floor Light Circuit

Phase-Neutral Voltage, Phase Current, Active Power (kW) Timeplot

The following timeplot shows the phase-neutral rms voltage, phase rms current, and active power (kW) recorded during each 15 minute sampling period:

Timeplot



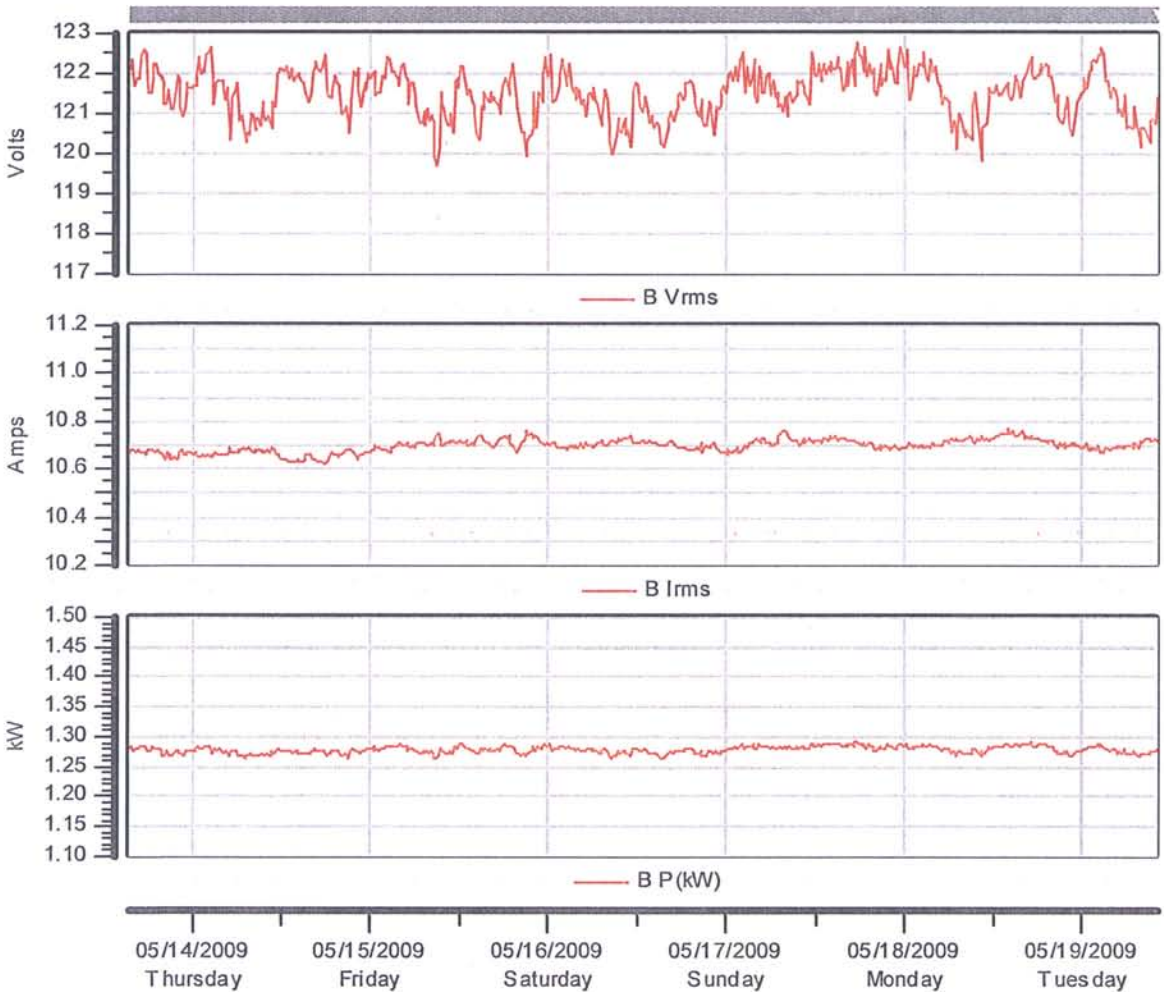
	<i>Min</i>	<i>Max</i>	<i>Avg</i>
<i>AVrms</i>	118.4	121.2	120.1
<i>A Irms</i>	2.619	2.812	2.711
<i>AP(kW)</i>	0.2620	0.2670	0.2642

3rd Floor Light Circuit

Phase-Neutral Voltage, Phase Current, Active Power (kW) Timeplot

The following timeplot shows the phase-neutral rms voltage, phase rms current, and active power (kW) recorded during each 15 minute sampling period:

Timeplot

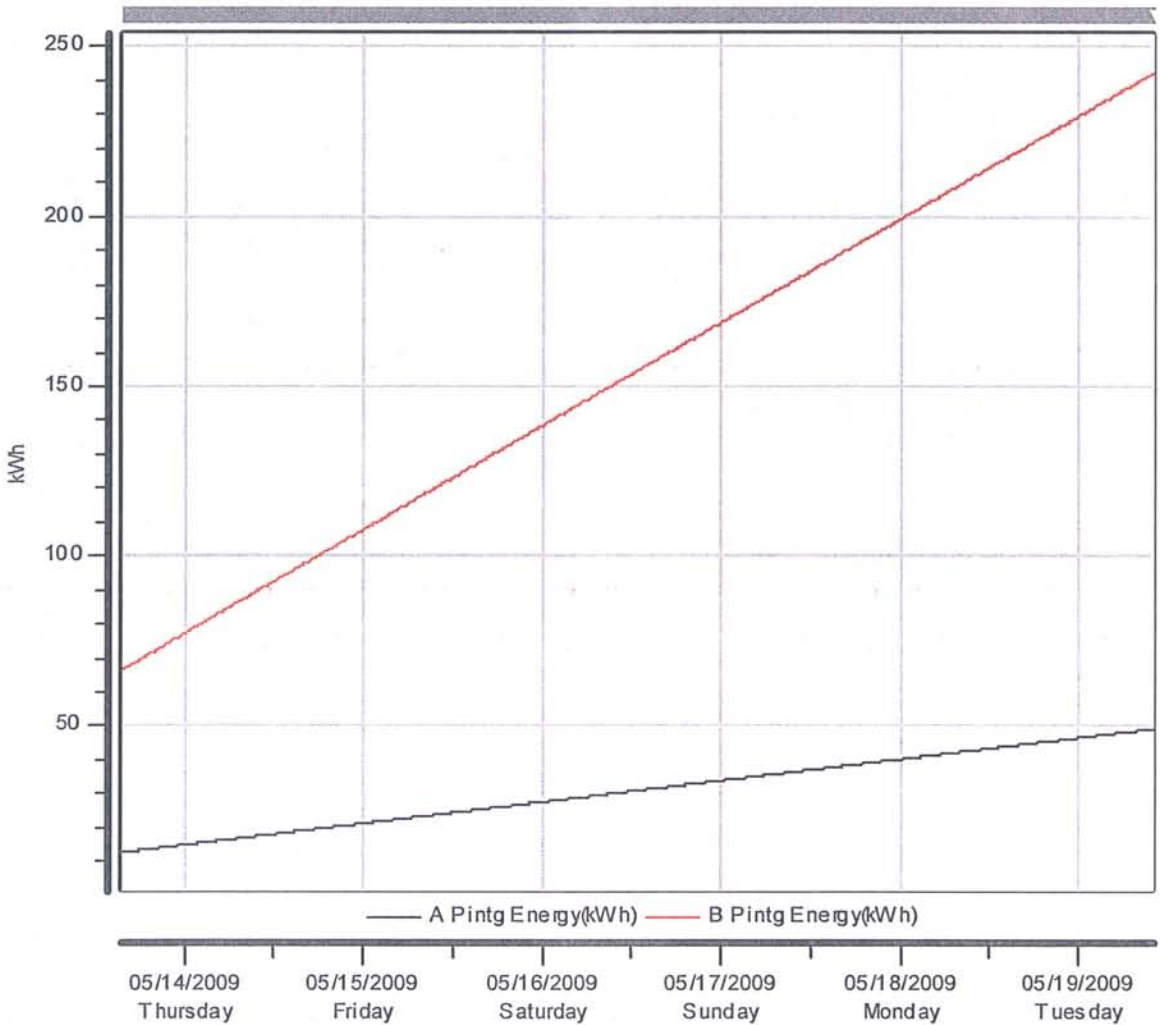


	<i>Min</i>	<i>Max</i>	<i>Avg</i>
<i>BVrms</i>	119.7	122.8	121.5
<i>BIrms</i>	10.62	10.77	10.70
<i>BP(kW)</i>	1.264	1.292	1.279

**2nd Floor & 3rd Floor Light Circuits
Integrated Energy (kWh) Timeplot**

The following timeplot shows the integrated energy (kWh) recorded over the entire recording:

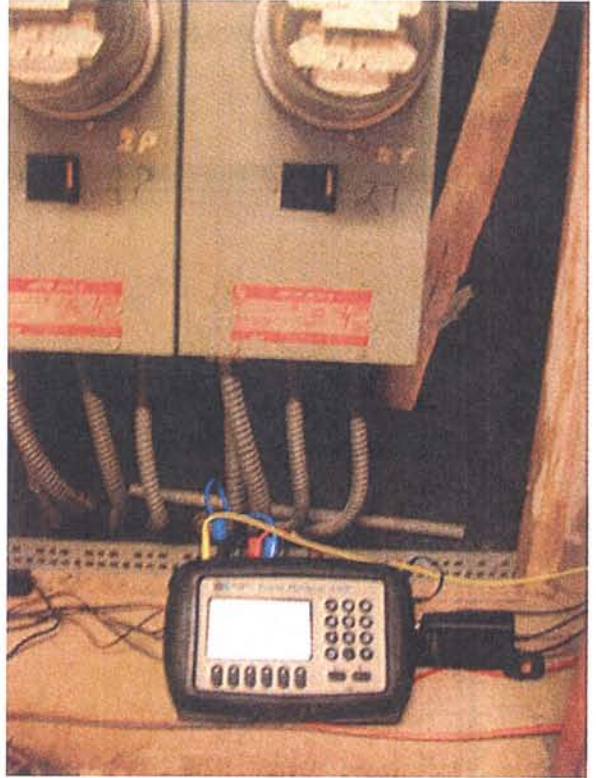
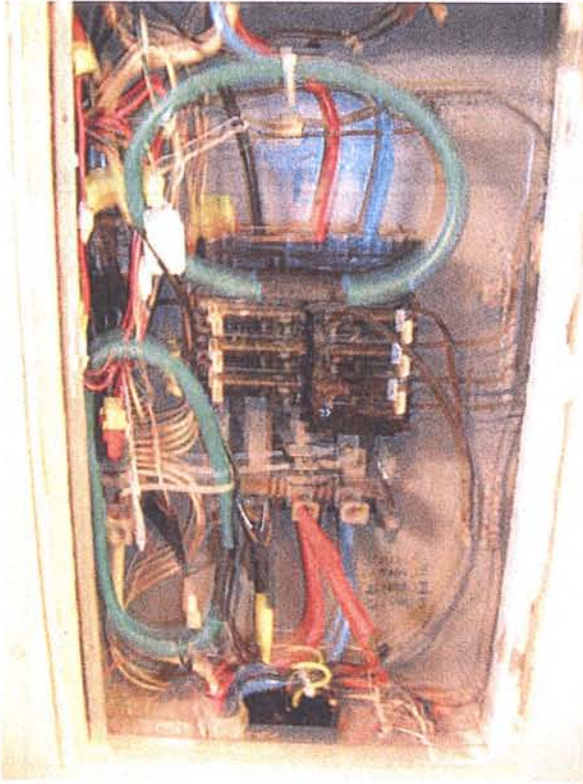
Timeplot



	<i>Min</i>	<i>Max</i>	<i>Avg</i>
<i>APintg Energy(kWh)</i>	12.69	49.21	30.95
<i>BPintg Energy(kWh)</i>	66.62	242.3	154.6

Photographs

Dranetz Meter Installed on 2nd and 3rd Floor Light Circuits



Photographs (continued)

2nd Floor Hallway Lights utilizing the LED Retro8 Product



3rd Floor Hallway Lights

