

Docket Optical System - Fwd: Information Load Management

From: Al Garcia
To: Docket Optical System
Date: 6/9/2008 9:37 AM
Subject: Fwd: Information Load Management
CC: David Hungerford; Gabriel Taylor

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Dockets:

Could you please add this person's comments to the Load Management Proceeding comments?

Please let me know of any problems.

Thanks

Al Garcia

>>> Richard Halvorson <emssinfo@yahoo.com> 6/6/2008 1:30 PM >>>
 June 2, 2008

Mr. David Hungerford:
 California Energy Commission

My name is Richard C. Halvorson. I have been involved with energy the major part of my professional career. I have a strong regard for efficient and conservative use of energy. I was one of the key program personnel in the 1975 sea lift to Prudoe Bay, Alaska. At the same time the oil fields in the Mid East were being developed by Ralph M Parsons and other US engineering companies. At the time we solved a problem for a short period of time.

The majority of my energy experience has been in the oil industry. My first major when I attended the U of Wisconsin was electrical engineering. I became very much interested when CA started to have rolling blackouts. Edison financial crisis in 2000 contributed to my going back to the text books. I knew the automobile industry started to use sensors the middle part of the 1950s. I felt that the same technology could be useful in the building industry to conserve energy. The following is my experience with the installation of the sensors in several hotels. It proved to be rewarding with the results of accomplishment It was a very stressful and time consuming but well worth the effort.

The graphs are from monitoring a 300 room hotel for ten years. All the items were either from utility bills or Energy Management Programs. Much of the time associated with this was gathering the information, observation, assembly of the graphs and other research material. We worked very closely with Mr. Sam Sansone a knowledgeable manager in hospitality industry for over 30 years. His observation and input of the progress was a very important. There were several months and years which affected the accurate measurement of reduction and savings.

1. Installation 2001 was not a full year to compare to the base year 2000.
2. May of 2001 a rolling blackout occurred which set the chiller to a default position increasing usage during the month June 2001.
3. We all know about September 11, 2001 which effected travel and occupancy of hotels.
4. 2002 was still a slow year for travel and occupancy/
5. 2003 the industry started to recover in the 3rd and 4th quarters.

6. 2004 and 2005 recovery of travel and occupancy returned. Recordings were precise measurement of energy reduction.

September 2005 we had a short heat storm which we were able to measure the effects of KW demand as temperature increased in hotels with sensors and without sensors. The heat storm of 2006 gave us additional data we recorded again hotels with sensors and hotels without sensors. The weather station in 2006 had problems, however we did record KW demand for the hotel with sensors.

The study was done with care and accuracy. EMSS installed a utility quality meter for measurement of the AC circuit. Total usage was 48% AC and 52% for all other. We used data loggers in the rooms to record occupancy and AC room run time.

Energy conservation is of extreme importance too all us. The study is our contribution to help our country and state conserve with a degree of historical knowledge and accurate measurements. Measurements were done using AC chillers, split systems, roof top, and PTAC, PTHP.

My opinion the nation appears to be going back to same problem we experienced with ENRON. However the problem has grown and includes more than CA. The problem is more complex than we need to discuss. In short the closer we are to supply and demand will eliminate many of the problems with hedge funds being just one element of many. AMI may be a plus and help with historical records to aid in forecasts being more accurate. The records we furnished to Mr. Sansone gave him the ability to forecast his next year energy by quarters with great accuracy.

I think we need to have public forms with an outline informing the consumers how important they are to help fix today's problems. Illustrate how they can help as simple as turning off the light when not needed. Turn off the computer when it is going not being used for more than an hour. This will help and put money into your bank account. Our theme has been for 7 years, (**Turn it Off Run it less Make it More Efficient**) will save you money. Rather than yell at you children buy sensor light switches which will shut off the lights when exiting the room. They are flexible and times can be adjusted to meet your needs. Heating and Air Conditioning is by far the largest user of energy. The sensors we use are also flexible to meet needs. We want you to be comfortable and still save money when not needed. We all forget to shut things off and the sensors are just a means to help.

The ten year history of one hotel on our web site is a good illustration of savings with a R.O.I. less than two years with rebates less than a year. Please visit our web site www.emss1.org and scroll down from list on the left and review the savings both in kWh and KW. I hope this has been informative and helpful.

If you have any questions please do not hesitate to give me a call.

Thank you for allowing me to participate in the web-cast.

Sorry for the delay.

Regards,

Richard C. Halvorson
714 836-1446