

CASE STUDY

Telkonet SmartEnergy™

Radisson Hotel & Conference Center, Green Bay, Wisconsin



Type of building	Hotel
Location	Green Bay, Wisconsin
Year built	1986
Number of buildings	3 buildings
Number of stories	3 to 6 stories
Number of units	408 units
Installation date	October 2004

Faced with continuously high energy usage combined with the rising cost of power, Lance Broberg, general manager of the Radisson Hotel & Conference Center in Green Bay, knew he had a problem. The property was typical of many other hotels in that one of its greatest expenditures was energy, and guest usage represented a large portion of its overall utility bill.

"We had been monitoring our energy costs over the past three years, and we were seeing anywhere from 10 to 20 percent increases each year in gas and electricity charges," explained Broberg. "Rather than continue to sit back and take those energy increases, we needed to be proactive in looking for a solution."

The Radisson Hotel & Conference Center in Green Bay, Wisconsin, owned by Oneida Nation of Wisconsin, is one of Green Bay's largest properties. Centrally located near the airport and adjacent to Oneida Bingo and Casino, the Radisson Hotel offers warm hospitality, an inviting atmosphere and topnotch services for business and leisure travelers alike. It also features a range of dining options and state-of-the-art conference and banquet facilities.

This 408 room property had two different heating and cooling systems in place - in-wall PTAC systems in 300 units and thermostats in the remaining 108 rooms. The inefficient, hard-to-manage PTAC controllers were equipped with only basic hot/cold and on/off switches. With a lack of temperature control, the systems would continue running

until guests physically shut them off. "Conceivably, during our slow season, these units could be running 24 hours a day for weeks," said Broberg.

Not wanting to face another costly energy bill, Broberg and his staff began investigating various energy management solutions and ultimately chose Smart Systems International's SS5000 Thermostats and SS1000 PTAC Controllers.

"We first met Smart Systems International at the annual Radisson Business Conference last year, and we became familiar with their products. We had looked at another energy management solution, but it didn't have the robust features of the Smart Systems solution," said Broberg. "Along with an incentive from our local utility, we were able to come to a very good investment price."

As an Energy Star partner, Smart Systems International's thermostats are allied with Wisconsin Public Service's Focus on Energy program. The Radisson was able to turn to the program for third party support of the project. "The \$15,000 rebate incentive (\$50 per guestroom) has an immediate impact on our return on investment. It was ultimately the deciding factor in moving this project forward," explained Broberg.

Smart Systems International's line of energy management controls - using patented Recovery Time™ technology - incorporates a PTAC controller

* Smart Systems International was acquired by Telkonet in March 2007.

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Lance Broberg,
General Manager, Radisson Hotel & Conference Center

or smart thermostat that wirelessly communicates with an occupancy sensor to monitor and adjust to conditions such as weather, room temperature and HVAC efficiency. The system automatically tracks room occupancy to optimize temperature settings for room-by-room savings by relaxing the temperature when a room is unoccupied and then uses its exclusive technology to recover a guest's temperature set-point within minutes of their return. Because the equipment is wireless, it is installed within a relatively short amount of time, resulting in minimal downtime of rooms. SmartSystem SS500 Energy Management Thermostats include programmable parameters that allow guests to adjust room temperatures between a set range, as dictated by hotel management.

"There were two major selling points with Smart Systems International's solution - the cost savings and guest

satisfaction. We wanted the system to be completely seamless for guests, and with the Recovery Time feature, it takes less than 10 minutes for the room's temperature to return to its original setting," stated Broberg. "Guests have not noticed any difference in temperature, which has been the best part."

The Radisson Hotel Green Bay installed the SmartSystems SS5000 Energy Management Thermostats and saw immediate results. "We anticipate approximately \$60,000 (nearly 500,000 kWh) annually in energy savings," Broberg explained. "The new systems are expected to pay for themselves in anywhere from 18 to 24 months."

Bill Dukes, president and CEO of Smart Systems International added, "By allowing temperatures to drift within predetermined set-points, the SmartSystems line of energy management solutions are able to help lodging facilities of all sizes significantly reduce their overall energy consumption. With the installation of our systems in the Radisson's Green Bay location, the hotel is able to realize energy savings in excess of 42 percent annually."

Broberg concluded, "There are a lot of products out there that promise savings, but they don't perform at the same level as the SmartSystems solutions."

www.telkonet.com

Telkonet Headquarters

20374 Seneca Meadows Parkway
Germantown, Maryland 20876.7004 U.S.A.
sales@telkonet.com
international@telkonet.com

Phone: 240.912.1800
Toll-Free in the US: 866.375.6276
Fax: 240.912.1839

