

March 13, 2008

2008 Stars of Energy Efficiency Awards Program  
Alliance to Save Energy  
1200 18<sup>th</sup> Street, NW – Suite 900  
Washington DC 20036

Re: 2008 Stars of Energy Efficiency Awards / GALAXY - Nomination: HEI HOSPITALITY

HEI is a national hotel company created in 2002 and has grown to 31 hotels location in 13 states. This award winning and rapidly growing hospitality group demonstrated *industry leadership* in undertaking a *national energy management program* in 2004. HEI's now has revenues over \$400M and utility expenses of \$17M per year. Based on industry statistics, HEI 'utility expenses as a percentage of revenue' are now 10% to 15% below the national average.

To date HEI have invested \$4,500,000 in energy improvements and have saved over \$1,000,000 in 2007 alone. When the HEI energy efficiency and controls improvements are all on-line for one year (in 2008), they will produce nearly \$2,500,000 in annual energy savings. Using HEI HQ office state of CT as a reference point, that represents the following annual pollution reduction; 59,406,25 lbs. of CO<sub>2</sub>, 41625 lbs. of NO<sub>x</sub>, 46,344 lbs. of SO<sub>2</sub> and 15,188 milligrams of Mercury (Hg) reductions.

The first step in this journey was (a) collecting the electricity, natural gas and water/sewer bills and utility printouts for all of its properties and then (b) benchmarking them based on energy units per square foot, BTUs per square foot, energy dollars per square foot , energy 'per room'. HEI reviewed local utility tariffs, metering and energy efficiency programs offered by the EDCs, LDCs and state government energy offices. The second step was a nationwide facilities and energy survey of its properties conducted by the hotel chief engineers, controllers and general managers. HEI addressed low cost/no cost energy efficiency improvements then addressed energy improvements requiring capital investments but yielded attractive payback periods, high ROI and positive NPV.

PHASE 1 of the energy management project involved lighting upgrades to of its hotels. This started with *investment grade energy audits* of all lighting systems in the hotel common areas, guest rooms, back of the house and exterior lighting. Working with GE HQ, HEI implemented a retrofit to all of its lighting and exit signs to the state of the art in energy efficient lighting. The goals were better lighting, lower life cycle costs and lower energy costs. All T12 fluorescent lighting was replaced with Super T8 and some office/conference room utilized the new RT5 fluorescent with dual level lighting. All of the incandescent lighting in the guest rooms, offices, hallways, pre-function and ballroom areas was replaced with CFLs and in some cases with dimmable CFLs. All of the incandescent (and prior LED retrofit) exits signs were replaced in modern green LED exit signs. This major project will yielded a simple payback in 2.3 years and will continue to produce energy savings for the next 20 to 25 years. Project saves over \$1 M / year and saves 115KBTU / Ft<sup>2</sup>.

PHASE 2 of the energy management project will be the installation of building automation system (BAS) controls for all of the hotel HVAC systems , central plant HVAC and new energy efficient HVAC systems. A key target of the BAS improvement was the guest room HVAC units that usually run 24x7x365 under guest controlled thermostat settings alone. The BAS improvement protects *guest comfort* while monitoring occupancy by motion, body heat and a door switch. The BAS controls will reduce the average run time of the guest room HVAC units by 40% to 45%. This BAS project will yield a simple payback in 18 – 24 months and produce savings for the next 15 to 20 years. HEI also switched to digital thermostats for better guest satisfaction, comfort and management control over temperature set points saving an additional 1% to 3%. Existing BAS/EMS controlling the common area HVAC units are also being upgraded for additional savings.

PHASE 3 involved alternative fuels, high efficiency HVAC equipment, high efficiency water heating and occupancy based controls, improved maintenance procedures and some combined heat & power (CHP) projects in selected locations with high electricity costs. Solar window film was added to selected locations. Solar thermal heating of exterior swimming pools is being considered. As motors are replaced, they are replaced with premium efficiency motors and many will be considered for VFD applications. As new hotels are added to the portfolio, *HEI's new energy efficiency and quality standards* are applied. HEI is doing retro-commissioning to insure that all systems perform to the manufacturer's specifications, A&E design intent and the owners need for comfort, long life and energy efficiency.

RESULTS: Results of the energy management program are actively monitored using the FacilityIQ database, Entech database / report writer, the EnergyStar Portfolio Manager benchmarking tool plus our own internal spreadsheets.

The HEI energy management team was lead by its Facilities Vice President - Bob Holesko. Mr Holesko developed then 'sold' the energy efficiency improvements to HEI's senior management team. After the success of the pilot energy management projects in 2005-2006, HEI committed major capital investments in 2007 to address all energy conservation opportunities with simple payback periods of three years or less. HEI was guided through their energy management in regulated and deregulated markets by their consultant Think Energy Management LLC. The HEI energy management leadership in the hospitality industry was featured as part of the February cover story of Building Operating Management magazine (attached).

*HEI can serve as a hospitality industry best practices model.* This is needed since less than 5% of the hotels have active energy management programs. According to the AH&LA, total industry revenues were \$133.4 billion in 2006. Based on utilities being 4% of sales, the hospitality market spends \$5.3 Billion each year for energy. At 5% of sales the energy cost would be \$6.67 Billion / year. A saving of 5% to 20% would provide a tremendous cost savings and corresponding reduction in green house gases. HEI's energy efficiency program can and should be replicated.

HEI energy success stories have been reported in Building Operating Management magazine, Light Fair International, ASE website, EnergyStar website, GE Hospitality Conferences and dozens of newspapers, magazines and e-newsletters. ASE's recognition of HEI Hotels and Resorts will demonstrate the value of energy management to the entire hospitality industry, an industry not recognized yet by ASE's award program.

Sincerely,

Richard G. Lubinski  
President