

## Energy Improvements to Dallas Sheraton, St. Louis Hyatt, Denver Sheraton



“E4E Solutions has proven to be a vital resource to Chartres Lodging by developing energy projects for three of our flagship properties. Their team provided a complete array of engineering services for our capital energy projects, from thorough energy analysis to rebate measurement and verification.”

Barry Nidiffer, *Senior Vice President, Chartres Lodging Group*

**129%** Of peak demand savings goal

### Dallas Sheraton.

At the largest Sheraton in the world, all mechanical, electrical, plumbing, and controls systems were deeply investigated for improvements that would provide short ROI's and operational advantages. After the projects were identified, E4E Solutions personnel assumed the roles necessary to manage the bid process, design and implementation, and rebate administration to the owner's satisfaction.

### Approach.

While determining both the real cost of energy and how it is being used at the property, areas for reduction were identified and targeted for detailed evaluation. Our team weighed the impacts of alternative utility rates, co-generation or fuel switching, and other comprehensive scenarios that allow the payback to be shortened for the targeted projects.

Through the introduction of occupancy-based ventilation, improved controls on chillers, boilers, and various motors, the Sheraton received a substantial reduction in both peak kW and total usage. E4E Solutions administered a whole building regression metering to show the energy savings to the local utility and earned the property almost \$200,000 in rebates. During the record breaking **heat wave of 2011**, the performance of the **hotel and conference center exceeded the kW demand savings estimates by 129%** while registering an occupancy level 13% higher than the baseline.

#### FINANCIAL IMPACT

|                       |               |
|-----------------------|---------------|
| Construction Cost     | \$ 2,742,325  |
| Annual kWh Savings    | 2,285,907 kWh |
| Annual Demand Savings | 1,019 kW      |
| Rebates               | \$191,276     |

#### ENVIRONMENTAL IMPACT

|                      |                   |
|----------------------|-------------------|
| Annual CO2 Saved     | 1,576 metric tons |
| Equivalent in oil/yr | 3,666 barrels     |