

# SUSTAINABILITY SERVICES

## Energy Audits

An energy audit identifies opportunities for efficiency improvements in an existing building. Transwestern Sustainability Services (TSS) performs two levels of American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) energy audits. TSS does not represent a product provider, installer or utility company, allowing for an unbiased energy analysis.

### LEVEL I: WALK-THROUGH ANALYSIS

A Level I energy audit identifies low- and no-cost energy conservation measures and the energy and cost savings potential of each by analyzing energy bills and conducting a brief on-site survey. A Level I energy audit that meets the ASHRAE standards is a prerequisite in the Energy and Atmosphere impact category in the LEED® (Leadership in Energy and Environmental Design) for Existing Buildings: Operations and Maintenance™ rating system.

### LEVEL II: ENERGY SURVEY ANALYSIS

Level II energy audits build upon Level I audits by including operations and maintenance procedures, constraints and economic criteria in the analysis. TSS identifies savings of practical measures that meet the property owner's constraints and economic criteria, and provides a summary of recommended changes to operation and maintenance procedures. Additionally, recommendations are made for capital-intensive improvements that may require more thorough data collection and the associated cost savings potential.



300 Kimball – Parsippany, N.J.  
LEED certified Silver – LEED for Existing Buildings: O&M™

### CASE STUDY:

#### 300 Kimball – Parsippany, N.J.

300 Kimball is a five-story building, totaling 448,960 square feet. TSS performed both ASHRAE Level I and Level II energy audits. During the LEED certification process, TSS reviewed the sequence of operations, mechanical drawings, occupancy schedules, preventative maintenance plans, indoor air quality management program, Building Automation System set points, parameters and control points. TSS performed an ASHRAE Level II energy audit to ensure the Building Automation System, lighting and HVAC systems were functioning properly. The team identified no- and low-cost energy conservation measures as well as capital improvement options and provided a financial analysis.

### AUDIT HIGHLIGHTS

- Identified low- and no-cost energy conservation measures during Level I audit, including run times of supply fans, Variable Air Volume (VAV) boxes serving vacant spaces and an electric baseboard heater not controlled by a thermostat.

### QUANTIFIABLE RESULTS

- Saved approximately \$68,000 (690,612 kWh) per year by reducing run times on ten air supply fans.
- Saved \$5,686 (46,176 kWh) per year by turning off the series fan of VAV boxes serving vacant spaces.
- Life cycle of electric heater extended and approximately \$200 a year saved by connecting the electric baseboard heater to a thermostat and not running the heater during the summer.