

# EXISTING BUILDING COMMISSIONING CASE STUDY

## IDS CENTER

Minneapolis, Minnesota

### PROJECT BACKGROUND

As Minnesota's tallest building, the IDS Center, has long demonstrated a commitment to environmental stewardship—from a full-scale recycling program to Metro Transit events on commuting options, green cleaning methods in public spaces, environmentally friendly purchasing practices, and multiple energy building management initiatives that conserve energy.

In 2015, the Center for Energy and Environment began a multi-year investigation to assess and improve energy efficiency in the 57-story office tower.

### INVESTIGATION

CEE engineers identified numerous energy-saving opportunities to help the IDS Center conserve energy and cut back on energy-related costs, by studying millions of data points collected through input from building operators, onsite measurements, and extensive trend analysis.

### IMPROVEMENTS

Engineers discovered a wide range of opportunities to maximize air handling, optimize lighting and mechanical devices, and adjust electronic programming for lights and climate controls throughout the building. In addition to the pump system upgrade, CEE contributed its engineering expertise and analysis to all aspects of the improvements noted above. These efforts earned substantial rebates, lowered the building's operating costs, and reduced its carbon footprint.

In May 2018, the IDS Center received a "Recognition of Excellence Award" from Xcel Energy for the efficiency projects completed through this commissioning study. The awards were designed to honor Xcel Energy Minnesota business customers who have demonstrated an exemplary commitment to energy efficiency.



### SOLUTIONS

CEE identified the following energy efficiency opportunities:

- Repair or replace chilled water cooling valves to eliminate simultaneous heating and cooling by central air handling systems.
- Adjust air handler scheduling to limit costs to condition outside air and energy waste when tenant spaces are not occupied.
- Improve the use of outside air for cooling to reduce the need for mechanical cooling when outside air conditions are favorable.
- Correct scheduling and outside air use for Crystal Court retail level, setting systems to run only when stores are open and to use more outside air to cool.
- Take measures to reduce water consumption, ranging from fixture replacement to flushometer diaphragm changes and calibration.

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