



Pittsburg State University

Campuswide Improvements & Geothermal Project Pittsburg, Kansas

Summary

The campuswide project at Pittsburg State University involves a total of twenty eight facilities that have a combined 1.5 million square feet of space. The oldest building was constructed in 1912, and many of the buildings have been renovated and added on to several times over the years.

Even though the University had completed an energy-saving project across campus in 2004, there were still huge opportunities for additional energy savings just seven years later. Some were due to newer technology being available, while other opportunities came from replacing aging equipment, or completing rethinking ways to heat and cool buildings. Recommended energy conservation measures include lighting retrofits, steam trap replacements, steam system improvements, boiler replacement, installation of geothermal heat pumps, energy management controls including occupancy controls in student housing, and energy awareness and behavioral training.

Geothermal Heat Pumps

A new high-efficiency geothermal heating and cooling system was installed in McPherson Hall and Timmon's Chapel. ESP assisted PSU in receiving a renewable energy grant from the State of Kansas that funded the effort.

Occupancy Based Temperature Control in Residence Halls

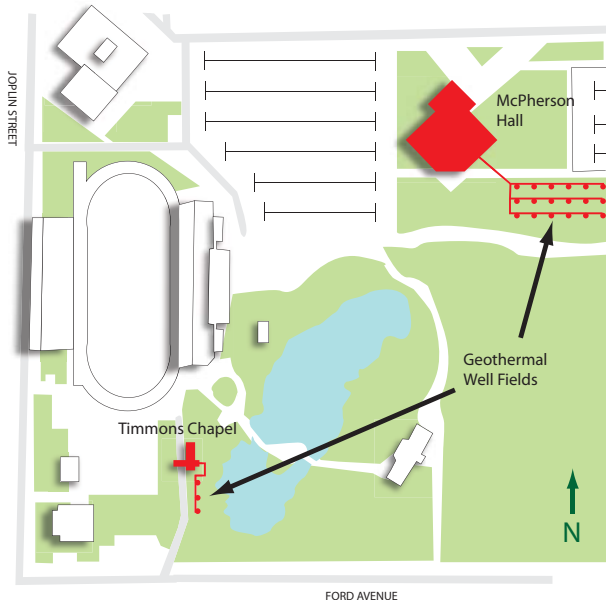
Seven residence halls on campus were upgraded with state-of-the-art heating and cooling controls that can "sense" when the room is occupied. This advanced technology allows for the temperature to be setback in rooms when they are unoccupied, while maintaining comfort levels for students when they are present.

Induction Lighting

ESP and the PSU staff opted to use induction lighting for some of the exterior lighting replacements that were performed on the project. Induction lighting is one of the most energy efficient lighting solutions that is commercially available today.

Energy Conservation Measures

- geothermal heat pumps
- lighting retrofits
- steam trap replacements
- steam piping insulation/blankets
- thermostatic control valves
- de-aerator tank vent condenser
- steam heat exchanger and PRV replacements
- boiler replacement
- occupancy based temperature controls
- behavioral training



↑ Sitemap for Geothermal Wells

Quick Facts

Scheduled Completion: 2011

Total Square Feet: 267,746

Number of Buildings: 28

Total Project Cost: \$4.7 million

Annual Savings: \$444,014

