

# Chemistry Building and Willard H. Dow Laboratory Chiller Replacement



## Project Description

The chiller plant that serves the Chemistry Building and Willard H. Dow Laboratory is located on the ground floor of the Chemistry Building and was constructed in 1988. One of the plant's three steam absorption chillers failed and was replaced with an electric chiller in 2010. This project will replace the two remaining absorption chillers and associated infrastructure with new electric chillers, pumps, piping, controls, cooling towers, and a new electrical substation. Based on the present costs for steam and electricity, the two new chillers will result in an estimated \$600,000 annual savings compared with the existing chillers.

## Energy Efficiency Measures

- Replace less efficient steam driven absorbers to electric centrifugal chillers
- Convert constant flow primary chilled water system to variable flow
- Adding or upgrading variable speed drives

## Other Sustainability Features

- Reusing pumps and piping where feasible
- Reduction in city water makeup use due to replacing absorption chillers with electric chillers

## Project Data

- Budget: \$7M
- Schedule: Completion scheduled for May 2013