



## ABBOTT POWER PLANT: ENERGIZING THE FUTURE

When Abbott Power Plant went online in 1941, the University of Illinois' peak electricity usage was 3,400 kW. Today, a single facility like the Siebel Center for Computer Science can use 480 kW, and a petascale supercomputing facility like Blue Waters demands 11,000 kW. Add to this the heating and cooling of more than 600 buildings on campus, and you begin to realize the daunting task facing Utilities & Energy Services staff who must plan not only for the next five years, but the next 35.

In December, Abbott will complete a five-year project that will help take it through 2050: the replacement of three 1970s-era gas boilers with more efficient, lower-emission versions.

"This helps ensure that Abbott can provide reliable utility services to campus for years to come," says F&S Director of Utility Operations Mike Larson.



*Top/Above: Crews began dismantling the plant's south energy stack in April.*

The first boiler was replaced in 2015. In between, there have been many steps, including adding an inlet cooling system to the plant's gas boilers and converting a steam turbine to an extraction/back pressure machine.

In April, trained U.S. Environmental Protection Agency-certified crews constructed a movable work platform to dismantle Abbott's 197-foot tall south energy stack. The stack is no longer necessary because the new boilers use smaller, metal stacks. The crew worked through June taking the stack down, knocking material into the center so it could be removed with an excavator.

In July, a contractor removed the remaining boiler using a hydraulic sled and rails. The two new boilers will arrive this fall and be tied into the system by December, just in time for the winter spike in campus' heating demand. ^