

Central Power Plant Expansion



Project Description

The Central Power Plant is a highly efficient natural gas co-generation facility providing steam heat and electrical power to most central and medical campus buildings. The electricity is generated from steam that otherwise would be wasted, resulting in an overall efficiency of approximately 80 percent that is much higher than most power plants. This project will construct a 12,000-gross-square-foot building addition (see attached site map and rendering) to house a new 15-megawatt combustion turbine that will reduce the university's greenhouse gas emissions by an estimated 80,000 tons per year. This reduction will be approximately halfway toward the university goal of reducing total emissions for the Ann Arbor campus by 25 percent by the year 2025. The project will incorporate all appropriate pollution control technologies, and the required air emissions permit for the project has been approved by the State of Michigan Department of Environmental Quality. We estimate a loss of approximately eight business and service parking spaces as a result of this project.

Sustainability Features

- The plant's cogeneration system produces half the emissions as the conventional method of delivering the same energy: utility-generated plus electricity plus separately produced steam for heat. The CPP produces steam to provide heat and electricity. By using heat that would otherwise be wasted, the system has an overall efficiency of 70-80 percent.
- The project is consistent with the state of Michigan Energy Office and the city of Ann Arbor's Climate Action Plan, both of which recommend expansion of co-generation as part of the future energy mix
- Low-VOC adhesives and sealants, paints and coatings, and flooring systems will be used.
- LED lighting will be utilized throughout the new expansion.