MIT Central Utilities Plant (CUP) Second Century Project

For the past 20 years, the Massachusetts Institute of Technology (MIT) has produced a portion of its own power on campus through cogeneration, a highly efficient combined heat and power (CHP) process. The Institute is proposing to upgrade the cogeneration facilities in its Central Utilities Plant (CUP) between Albany and Vassar Streets in Cambridge.

The CUP provides electricity, steam heat, and chilled water to much of MIT’s Cambridge campus, supporting critical research facilities, classrooms, and dormitories. The 21-megawatt natural gas turbine that powers the plant’s cogeneration process is nearing the end of its useful life, and the CUP Second Century Project will install two new 22-megawatt turbines in the CUP; one to replace the original turbine and a second to provide reliability and increased capacity to support MIT’s research and teaching initiatives. The project will also involve additional system updates and energy conservation measures, including upgrades to the facility’s cooling towers, chillers, and boilers.

- Upgraded plant will be approx. 24,000 square feet with two 165-foot stacks (one replacement, one new)
- Plant’s primary fuel will be natural gas
- If gas supply is interrupted, the plant will use #2 fuel oil as backup/emergency fuel
- Boilers will be upgraded to burn only natural gas or (in an emergency) #2 fuel oil, eliminating all use of #6 fuel oil on campus
- Plant will incorporate best available air pollution control technology, including catalysts to further reduce emissions

By reinvesting in cogeneration and adding new state-of-the-art equipment, MIT will increase its overall energy efficiency and reduce emissions.

The proposed project requires a public review process through the Massachusetts Environmental Policy Act (MEPA) office. MEPA will provide meaningful opportunities for public review of the project, including its scope, technologies, and potential environmental impacts. The MEPA public review must be completed before the Massachusetts Department of Environmental Protection (MassDEP) can issue an air plan approval and permit. The MEPA office and MassDEP must also enhance public participation opportunities for projects that potentially affect populations that are low-income, minority, foreign-born, or lack English proficiency.

MIT has filed a Single Environmental Impact Report (EIR) with the MEPA office; a hard copy is available at the Central Square Branch of the Cambridge Public Library, located at 45 Pearl Street. MIT has posted the EIR on the project website (http://powering.mit.edu/).

Interested persons can provide comments to the MEPA office in writing (Secretary of Energy and Environmental Affairs, Executive Office of Energy and Environmental Affairs (EEA), Attn: MEPA Office, 100 Cambridge Street, Suite 900, Boston MA 02114) or by email (alexander.stryksy@state.ma.us) until June 24, 2016. The MassDEP air plan approval and air permit will also have public notice periods after the EIR has been reviewed.

Forecasts of construction activities for the project will be posted on the project website (http://powering.mit.edu/). If you have any questions about the project, please email powering-mit@mit.edu.