



Johns Hopkins Hospital Baltimore, MD

two cogeneration plants / commissioning / energy efficiency

- CHALLENGE:** Improve energy efficiency and meet growing energy demands of expanding hospital campus.
- SOLUTION:** Adding cogeneration capabilities to the campus to offset the increased electrical and steam requirements.
- CLIENT:** The Johns Hopkins Hospital is widely regarded as one of the world's greatest hospitals. It has been ranked by U.S. News and World Report as the best overall hospital in America for 20 consecutive years.

05/10 – present

15mW Cogeneration

Cost: \$1 Billion for Construction

Concord Engineering is providing commissioning at two (2) new cogeneration plants which will serve Johns Hopkins Hospital's currently expanding campus. The most recent expansion of the campus includes a new \$1 billion clinical building, with 560 private rooms, and is expected to open April 2012. Johns Hopkins plans to offset the increased electrical and steam demand required to serve their growing campus by introducing the capability of cogeneration to both their North and South Energy Plants.

Through the installation of a 7.5mW Solar Taurus 70 Combustion Turbine Generator in their North and South Energy Plants, Johns Hopkins will have the ability to produce 15mW of electricity on site. Utilizing the exhaust heat from the Combustion Turbine Generator, by installing a Heat Recovery Steam Generator in-line with the Turbine, Johns Hopkins will have the ability to efficiently produce electricity while simultaneously producing steam to serve the campus.

The addition to the South Energy Plant also includes a Hurst Firetube Boiler capable of providing an additional 40,000pph of 150# steam into the existing campus steam network. The improvements to the North and South Energy Plants will add redundancy, as well as additional capacity to their steam and electrical systems providing continued support for future growth. In addition to improved energy efficiency and energy cost reductions, the installation of the Combustion Turbine Generators will also provide emergency electrical power to the new clinical building when it opens in April 2012. It is Concord's responsibility to perform the required testing of the North and South Energy Plants' new features to ensure all equipment operates as designed to support the new demands added to the campus' utilities.