

MEDICAL CENTER IN THE NORTHEAST

CHP operations ensure reliable clean energy for a leading U.S. hospital



A new Combined Heat and Power (CHP) plant for a prominent hospital in the Northeast will supply 100 percent of its energy needs, while also reducing campus emissions by 50 percent.



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5-year
O&M contract

165,000
lbs/hr
of steam

13 MW
of electricity

50%
reduction of greenhouse gas
emissions (estimated)

4,600
cars taken off the
roads annually
(carbon equivalent)

Scope

Currently under development, the new CHP plant will supply all electricity, heat, hot water, sterilization, and humidification required by this leading medical center, located in the heart of one of the most populous cities in U.S. As operator of the plant under a five-year contract, Veolia will manage the operations and maintenance (O&M) of the plant once construction is complete at the end of 2016.

Challenge

This world-class patient-centered academic hospital is one of the nation's premier centers for healthcare, biomedical research, and medical education. Comprised of three hospitals and R&D space, this urban campus requires reliable uninterrupted energy to support its critical medical and research operations. Faced with increasing extreme weather events in recent years, this leading northeast

medical institution opted to develop a new CHP plant for its energy needs – making this hospital completely self-sufficient in the event of a utility power interruption, while also significantly reducing its carbon footprint.

Veolia's solution

Currently nearing the end of development, the new CHP plant will serve the entire medical campus with electricity, heat, hot water, sterilization, and humidification. As operator, Veolia is providing pre-operations technical consultation, project

management of commissioning activities and will provide O&M services for the combined cycle plant under a long-term contract.

Result

As a microgrid with multiple back-up systems, the new plant will provide all campus energy needs with 13 megawatts (MW) of electric generating capacity and 165,000 pounds per hour of steam. When completed at the end of 2016, the CHP plant is expected to yield substantial

operation savings, in addition to reducing campus emissions by 50 percent – the equivalent of taking more than 4,600 cars off the road every year.