

THOMAS JEFFERSON UNIVERSITY HOSPITAL,
PHILADELPHIA, PENNSYLVANIA

Philadelphia hospital benefits from Veolia owned, chilled water plant



Veolia's development of a central chilled water plant helps a Philadelphia hospital meet its cooling needs, while eliminating the capital commitment by the client.



PHILADELPHIA, PENNSYLVANIA



Project Facts

925

bed hospital

30-year
contract

7,000
tons of chilled water
production

1.5M+
square feet served

6 buildings
served

2,000
lineal feet of supply and return
chilled-water pipe

32,400
tons of chilled water capacity

Scope

With a \$24 million capital cost, Veolia designed, financed and built a central chilled water plant at Thomas Jefferson University Hospitals and Thomas Jefferson University. Under a 30 year agreement, Veolia owns, operates and maintains the plant to meet the institution's campus chilled water demand.

Challenge

Thomas Jefferson University Hospitals and Thomas Jefferson University, a 925-bed hospital and teaching university, are partners in providing excellent clinical and compassionate care for patients in the Philadelphia region. As the institution sought to grow and renew its utility infrastructure, it also required a financing solution to advance the capital improvements. Due to Veolia's presence in Philadelphia and its reputation as a reliable and effective thermal energy provider through the city's steam grid, provision of chilled water from Veolia was a natural fit. With Veolia's financing, engineering and project development support, the institution developed a new central chilled water plant without the upfront capital expense that would have been incurred from self-development.

Solution

Veolia owns, operates and maintains the central chilled-water plant consisting of cooling towers, chilled water and condensing water pumps, electric switchgear, emergency generator and 2,000 lineal feet of chilled-water pipe. With 7,000 tons of chilled water production capacity, the plant serves six buildings consisting of 1.7 million square feet

of hospital, university and research space via a new underground distribution system. The engineering design included four electric centrifugal chillers with dual compressors and variable frequency drives on each chiller and a custom composite cooling tower.

Result

Veolia fully built the central chilled water system and continues to provide reliability and quality chilled water service to the University and Hospital under a 30-year term. Veolia's long-term partnership with Thomas Jefferson University Hospital enables the institution to focus on its research efforts and providing quality clinical care to its patients.

