



CASE STUDY

Hackensack University Medical Center CUP

Centralizing Utilities at New Jersey's Largest Medical Campus

Concord was an early-stage partner, Engineer of Record, and Commissioning Agent for Hackensack University Medical Center's new 44,000-square-foot Central Utility Plant (CUP) and the relocation and centralization of thermal and electrical utilities. The new CUP replaced 3 separate chiller plants, medical gas storage, a steam plant, a 26.4 kV service entrance, and a 13.2 kV distribution switchgear with a comprehensive system including a new 26kV PSE&G Substation that increased capacity, efficiency, and resiliency.

THE CHALLENGE

- Design the three-story plant to include a 180,000-pound-per-hour boiler plant, a 12,000-ton chiller plant, and a 7,500-kilowatt diesel generator plant.
- Collaborate to allow the existing substation to remain energized while the new 69 kV substation equipment is installed, tested and commissioned to power existing loads.



CONCORD ENGINEERING SOLUTION

- Achieved 50% savings in chilled water pumping costs and a 75% reduction in cooling power costs.
- First medical center in the U.S. to achieve PEER Gold certification (Performance Excellence in Electricity Renewal).
- Earned the American Society for Healthcare Engineering's VISTA Award for outstanding achievements in healthcare infrastructure.



+ LOCATION

Hackensack, NJ

+ SERVICES

Power & Infrastructure
Engineer of Record
Commissioning

+ PARTNERS

RSC Architects
EYP Architecture & Engineering
Stantec
Langan Engineering
WM Blanchard Construction
Turner Construction

+ TAGS

Healthcare
PEER Certification
Energy Efficiency
CUP

GET IN TOUCH

Power & Infrastructure

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