☐ HIGHER EDUCATION

Rutgers University
Piscataway, NJ
69kV Substation Design

CONSTRUCTION COST:
$10 Million

YEAR COMPLETED:
2009

ABOUT THE CLIENT

Rutgers, The State University of New Jersey is the largest institution for higher education in New Jersey with over 37,000 students. The university offers more than 100 distinct bachelor, 100 master, and 80 doctoral and professional degree programs across 175 academic departments, 29 degree-granting schools and colleges, 16 of which offer graduate programs of study.

NEW 69kV SUBSTATION

Concord Engineering was retained by Rutgers University to evaluate and perform engineering design and construction services for upgrades to their overall campus electrical system. Concord worked with the University to upgrade the campus electric utility service to 69kV from the present 26.4kV source. Concord provided utility coordination with PSE&G for a new protective relay as well as metering requirements associated with the new substation. The project is operational, and is owned and operated by Rutgers University and PSE&G.

Concord also developed a 26.4-13.8kV substation and connections to the existing Busch campus 26.4kV substation and is currently adding an Intercampus 26.4kV cable extension and new 26.4-13.8kV substation on the Livingston Campus.

Design and installation of project included:

- A new 90 MVA power facility
- 69kV ring bus configuration using SF6 insulated circuit breakers
- Outdoor liquid-filled transformers to step the voltage down to 26.4kV
- Medium voltage distribution switchgear to distribute the 26.3kV power to their existing substation on site
- Two new 26.4kV substations to be built over the next five years

REFERENCE

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