



U.S. Naval Research Laboratory CHP Engineer of Record

PROJECT INFORMATION

CONCORD DIVISION

Power & Infrastructure

PROJECT LOCATION

Washington, DC

MARKET

Government

SERVICES

Engineer of Record

CONSTRUCTION COST

\$23 Million

PROJECT HIGHLIGHTS

As Engineer of Record for the Naval Research Lab CHP project in Washington, DC, Concord Engineering continues our industry leading role as designer of energy infrastructure for mission critical clients. The project makes full use of our experience with high energy piping systems, high voltage utility interconnection and advanced plant design methods.



PROJECT SUMMARY

Designed around a Solar Turbines Mercury 50 CTG, the 4.6 MW CHP Plant for the Naval Research Laboratory located in Washington, D.C. continues Concord Engineering's industry leading role as design engineer of record for mission critical CHP facilities. This new system will be the prime source of energy for the Naval Research Laboratory campus, generating 15kV power and 13,000 pounds per hour of 125 psi steam and significantly reducing the overall energy spend of the NRL campus.

CHALLENGES

To meet the goals for capital cost, accommodations for limited space and aggressive schedule, Concord provided extensive up-front design and optimization support to the project execution team. Concord's industry leading experience in designing CHP projects allowed for confidence in developing a project cost and execution plan.

SOLUTIONS

- Optimized site arrangement allowing for constructability and access for maintenance
- Optimized electrical interconnection scheme reducing construction costs and disruption to exiting site utilities
- Value engineering of electrical switchgear and integration into facility substation
- Early-stage engineering to support expedited purchase orders for long lead equipment

RESULTS

- ✓ Project Team developed a project execution plan meeting the challenges for cost, schedule, constructability and maintenance
- ✓ Aggressive early stage project milestones for engineering met