



CASE STUDY

Bridging Power Solution for Hyperscale Data Center

Onsite 100MW IT Load Natural Gas Fired Power Island

When grid power is unavailable for a large-scale data center developer in the heart of Data Center valley, developers turned to Concord Engineering Group (CEG) for a power solution. Our expert engineering team delivered a custom onsite power solution, capable of supporting the full data center IT and house load with utility-level reliability. Concord Energy Services team also advised on wholesale natural gas purchasing strategies, optimizing the client's operating model and power island.

THE CONCORD DIFFERENCE

- Extensive experience with gas turbine fired utility-scale power solutions, allowing our data center clients to concentrate on their core business with the confidence that their critical energy needs will be met
- Scalable, adaptable alternatives to standard power island designs for data centers, with the ability to tailor infrastructure to the client's specific needs, demands, and locations

THE CHALLENGE

- Develop an onsite power solution to provide 100 MW IT power *without* available grid power connection
- Power solution requiring 99.999% reliability
- Design to adapt when grid connection becomes available
- Ability to dismantle power equipment and move to other locations.

CONCORD ENGINEERING SOLUTION

- Concord and CEM Engineering design future-proofs standard data center power island model
- Solution serves as backup power and peak demand management when grid connection becomes available.
- Identify specific needs for redundancy targeting capital and equipment cost for the highest level of reliability
- Natural gas fired power island, offering lower emissions than diesel engines
- Create a custom, modular power island design to allow the client to dismantle and install the model at a different location.
- Negotiated Tariff Design for large volume gas supply requirements.

+ LOCATION

Confidential, USA

+ SERVICES

Design Engineering
Program Manager
Energy Advisory for Utilities
& Commodities

+ PARTNERS

CEM Engineering

+ TAGS

Data Center Development
Energy Infrastructure
Utility Scale Power
Power Island Engineering
Natural Gas Fired Power
Energy Commodity & Rate Tariff
Design

GET IN TOUCH

Concord Engineering Group, Inc.
mboswell@concord-engineering.com
www.concord-engineering.com
(856) 427-0200