



## 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

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