

Backup Generation for Data Center

Outsourced data center infrastructure meets outsourced energy infrastructure



DistributedEnergy



Challenge

Our customer, a data center company, offers its clients a pay-as-you-use data center model, allowing businesses to lease storage space based on actual usage. This outsourced, economical and scalable approach offers clients an alternative to the traditional models of owning and operating a large data center or leasing excess space in a co-located (CoLo) facility.

The customer applied this same out-of-the-box mindset in building its new data center in Texas, which was designed to serve up to 30MWs of data processing load. Delivering the highest standards of reliability to their data center clients is central to their business model, so uninterrupted service is expected. Any extended grid outage taking their data centers offline would be devastatingly expensive, as well as damaging to customer relationships. They sought a flexible and cost-effective backup generation solution to help guarantee reliability; this infrastructure cost, however, had to be balanced alongside their aggressive growth strategy, which required that the company's people and capital stay focused on the core data center's business objectives.

The Solution

The customer turned to Constellation for a solution that met the data center's stringent technical requirements, allowed room for future growth, and offered an attractive financing structure. Constellation teamed with PowerSecure, Inc., a leading manufacturer of distributed generation and utility solutions, to design, build, own and operate a 10MW Interactive Distributed Generation (IDG®) system. The solution is modular in nature, so it can expand to properly backstop the data center as the facility grows. On the financial side, Constellation owns the system and is responsible for ongoing operations and maintenance, while the customer pays a monthly reliability fee. To help reduce the cost, Constellation will run the generators for load management purposes and bundle the project with power supply. This no money down, scalable approach fit well with the company's "pay as you go" business model and freed up capital for data center infrastructure – all while providing best-in-class protection against power disruptions.

Highlights

Project

Reliability:

Data centers cannot afford power disruptions; utilizing generators for load management programs can actually help to improve reliability as the assets are run under load more frequently

No upfront costs:

Deferring capital costs into a monthly service fee allowed the data center customer to spend more on the growing business

Scalable:

Just like the data center, the backup system is modular and prepared to accommodate future expansion

Technical

- 10 MW backup generation system
- 15-year Generator Services Agreement
- 5-year electric supply agreement
- Customer pays monthly "Reliability Rate" service fee
- Constellation owns, operates and maintains generation system

Work With a Trusted Energy Solutions Provider

Constellation tailors its integrated energy solutions to its customers' unique needs, providing them with the flexibility to choose how to cost-effectively buy, manage and use energy to meet their business goals. Along with expertise, Constellation offers a wide range of innovative and integrated distributed energy products—including solar, energy efficiency, cogeneration, backup generation, fuel cells, CNG fueling stations and battery storage—as well as the reach of one of the nation's leading competitive suppliers of power, natural gas, renewable energy and energy management products. With more than 30 years of experience and over \$1 billion in energy-related projects financed and built, Constellation helps business, nonprofit and public sector customers achieve sustainability goals, develop energy resiliency, manage costs and capital needs, and mitigate risk.

Start the Conversation Today

For information on any of our distributed energy solutions—contact us today at distributedenergy@constellation.com or visit www.constellation.com/distributedenergy

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