

Stable and Reliable Power for Equinix DB5

Powering data centers with aeroderivative gas turbines



Challenge

With the global demand for data centers steadily growing, the question of their energy supply and their integration into national power grids is of increasingly critical importance. They have become the digital backbone of modern society such that power blackouts and disruptions are unacceptable to consumers, regulators, and infrastructure owners alike. The transition to a clean energy system requires that any on-site generating solution must be future-ready in terms of fuel flexibility and should be fully capable of supporting the integration of renewable energy sources by firming the grid with dispatchable generation capacity.

Technical solution

- Nine 5 MW SGT-A05 gas turbines (with N+1 redundancy)
- Fuel flexibility (dual fuel + H2-capability)
- Fast start-up of <90s

“This project represents an important milestone in how state-of-the-art gas turbine technology can secure the energy supply for data centers. Our customer will have a reliable, high-power density, low emission and efficient solution for on-site back-up power generation.”

Robert Bouwens
Vertical Sales Manager, Siemens Energy

Benefits

- Support and stabilize the grid to balance intermittent renewable generation
- Enable data center to act as a peaker
- High startup reliability
- Accelerated operation before grid is available
- High power density generator units
- Emergency backup in case of blackout



At the Equinix DB5 data center outside Dublin, Siemens Energy's SGT-A05 gas turbines provide local peaking and backup power required to operate a state-of-the-art data hub and help sustain Ireland's power network in a period of far-reaching change.

The SGT-A05 is an ideal power generation solution for fast-response emergency backup and highly efficient on-site energy supply.

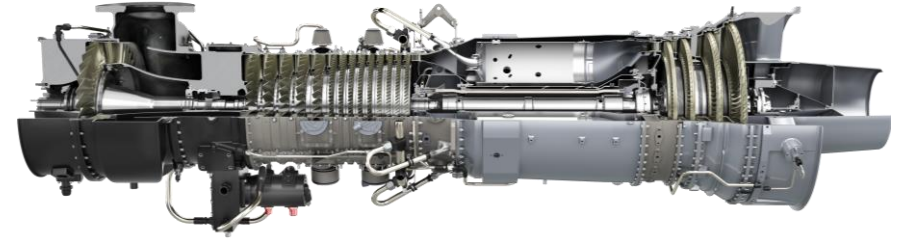
Its emissions, already lower than those of conventional reciprocating combustion engines running on diesel or natural gas, are further reduced by short shutdown times, and it exhibits low parasitic losses while in back-up mode.

The turbine excels through reduced maintenance periods, usually requiring less than three days of shutdowns for overhauls. This allows the operator to adhere to tight schedules, maintain availability while also ensuring maximum performance and efficiency over a long service life.

About the customer

Equinix is a global leader in digital infrastructure co-location with clients in North and South America, Europe, the Middle East, and the Asia-Pacific region. Founded in 1998, Equinix now operates 229 data centers in 63 major metropolitan areas across 27 countries, including five centers in the greater Dublin area.

It provides data center services to more than 10,000 customers, including over 260 Fortune 500 companies, ranging from digital media, network, and financial corporations to cloud and IT service providers.



The 45 MW power generation plant incorporates nine 5 MW Siemens Energy SGT-A05 gas turbines.

Published by and copyright © 2025
Siemens Energy Global GmbH & Co. KG
Otto-Hahn-Ring 6
81739 Munich, Germany

For the U.S. published by
Siemens Energy, Inc.
15375 Memorial Drive, Suite 700
Houston, TX 77079, USA

For more information, please visit our website: www.siemens-energy.com

Subject to changes and errors. The information given in this document only contains general descriptions and/or performance features which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products. The requested performance features are binding only when they are expressly agreed upon in the concluded contract. All product designations may be trademarks or product names of Siemens Energy Global GmbH & Co. KG or other companies whose use by third parties for their own purposes could violate the rights of the owners.