



5 kW Backup Power Solution for Telecom Exchange in Sicily

What

Telecom Italia, one of Europe's leading mobile and wireline telecommunications carriers, required a reliable backup power solution for a remote fixed network exchange site in Sicily. Following testing, Telecom Italia selected and certified the IdaTech ElectraGen™5 fuel cell system to reliably provide backup power with low emissions for extended periods of time during grid failure for a 3.5 kW load at 48 VDC.



Why

Designed to replace or supplement traditional power generation products, the ElectraGen™ family of systems provides reliable backup power for applications in the 1 to 15 kW range. IdaTech's solutions have been certified following an extensive testing during on-site evaluation in Delia, Sicily. The ElectraGen™5 system was field-tested by Telecom Italia for the outdoor installation to evaluate system response to power interruption, load variation and overload, as well as operation time with and without external batteries. The field test campaign was also required to let Telecom Italia integrate the system with the existing metropolitan monitoring systems.

The hydrogen-fueled system is installed with five industrial bottles of hydrogen to provide more than 12 hours of reliable backup power with low emissions. At the conclusion of the test, Telecom Italia certified the product as passing its technical requirements for use in their network.

How

The IdaTech PEM fuel cell systems utilize readily available commercial grade hydrogen, or hydrogen derived from reformed methanol. Hydrogen and air are combined inside the fuel cell system to produce electricity with water vapor being the only emission. The hydrogen-fueled system was selected at this Telecom Italia location to provide backup power for up to 12 hours.

When

The system sitting, testing and evaluation took place during the winter of 2006/2007.

Where

A telecommunication exchange in Sicily.

About IdaTech

IdaTech is a global leader in the development and manufacturing of clean and reliable PEM fuel cell solutions for telecommunications, commercial and industrial backup power from 1 to 15 kW. IdaTech's unique technologies provide solutions for a wide range of applications from portable to off grid power and directly support efforts towards sustainable energy.

IdaTech's portfolio of fuel cell solutions is based on its proprietary multi-fuel fuel processing technology, its own fuel cell stack and power module, and fuel cell system integration capabilities. With the support of strategic partners, the company's solutions are being deployed on a global scale for stationary and portable applications and are helping to provide a path to sustainable energy.