

## Case Study

# Fuel cell backup power system operating in central London

### Challenge

Provide extended run backup power for security office in city center building.

### Solution

A 5 kW IdaTech fuel cell backup power system, the ElectraGen™ 5XTR has been installed by Cell Care Technologies at the London headquarters for Investec Specialist Bank ([www.investec.com](http://www.investec.com)). Operating on a liquid fuel (a methanol/water fuel mixture called HydroPlus), the fuel cell system will provide extended run backup power to the building's security office to ensure site integrity during any power interruption. The fuel cell is integrated with a Chloride UPS system and installed in the loading dock of the Investec building.

#### ElectraGen™ 5XTR Features:

- 3 kW or 5 kW system (24 Vdc or 48 Vdc)
- Liquid fuel operation (methanol/water mix)
- Integrated fuel cell/reformer/tank concept
- Up to 48 hours of autonomy
- Operating temperature from -40°C to +50°C
- Low maintenance
- Noise level < 60 dB at 1 m
- Indoor or outdoor installations
- CE certified product

### Results

The ElectraGen™ 5XTR fuel cell system is a high-efficiency, compact backup power system based on IdaTech's Proton Exchange Membrane (PEM) technology and industry-leading reformer technology. This state-of-the-art system combines a PEM fuel cell stack, reformer, fuel storage and delivery, controls and power electronics to create another



### Overview

**Site:** London, England

**Application:** Backup power for security office

**Product:** ElectraGen™ 5XTR

**Configuration:** 24 Vdc or 48 Vdc

**Fuel:** HydroPlus

**Customer Motivations:** Clean, low noise level (< 60 dB at 1 m), compact alternative to diesel generator for city center application

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industry-leading product. The ElectraGen™ 5XTR fuel cell system can meet the requirements of the most stringent critical power applications. Some backup power applications require long autonomy (hours or days). The IdaTech solution provides a clean, compact and quiet alternative to diesel generators for city center applications. Solutions like traditional batteries or fuel cell systems using bottled hydrogen are practical for only a limited number of hours. The ElectraGen™ 5XTR System internally produces high-grade hydrogen for the fuel cell stack, enabling days of operation from a very compact liquid fuel source.

The ElectraGen™ 5XTR System also provides an economical solution to help avoid the traditional challenges associated with hydrogen delivery and storage by producing hydrogen on-site and as needed. It is perfect for remote locations such as telecommunications towers or in city centers where diesel generator operation is not allowed.

