

Case Study - Ballard Participates In Ensuring Danish Preparedness

Ballard's 120 hydrogen fuel cell backup power systems prove reliable over 5 years of operation in Denmark's public safety network (SINE) .

SITUATION

The communications system originally used by Denmark's emergency responders (including police, ambulance service, fire-fighting and rescue services) was not an interconnected system and was on average 15 years old. In 2007 the Danish Preparedness Act was modified by an act of Parliament to ensure all emergency responders use a common radio communications system known as SINE, the Danish public safety network.

SINE was to be based on the newest digital Tetra technology, with strict guidelines to ensure that the peak load would not overload or allow the network to become inoperative as a result of terrorism or other emergencies. In addition, the system required adequate backup power supply to ensure uninterrupted service in the event of an emergency.

SOLUTION

Ballard's FCgen®- H2PM outdoor fuel cell solution was selected to support the SINE network, based on its commercial and technical merits. Compared to conventional backup technologies such as batteries and diesel generators, the FCgen®- H2PM solution provides higher reliability, lower maintenance costs, significant environmental benefits and can ensure network uptime for extended durations.

The fuel cell system utilizes Ballard's FCgen®-1020ACS fuel cell stacks, which operate using direct hydrogen fuel, providing clean reliable backup power. The rapid start-up of fuel cell-power ensures seamless, uninterrupted service to end-customers.



RESULT

Ballard's FCgen®- H2PM fuel cell backup power system has been successfully installed and operated at approximately 120 radio base station sites throughout the Denmark SINE emergency services network.

These systems have been in operation for over 5-years and have zero start failures through an estimated 4,000 power outages, providing a critical backup power solution with extended run time to ensure continuous service during any emergency situation.

SUMMARY

Sites: Danish SINE - Tetra Network

Application: Ballard's integrated outdoor cabinet fuel cell solution for Denmark's emergency radio communication system.

System: FCgen®- H2PM

Configuration: 2 kW

Fuel: Hydrogen

Objective: Provide a reliable, lower maintenance system with extended duration runtime for backup power solution within the strict guidelines outlined for the TETRA network.

ABOUT BALLARD



Ballard Power Systems, Inc. is recognized as a world leader in the design, development, manufacture and sale of clean energy fuel cell systems. Our FCgen®-H2PM fuel cell system for backup power offer a complete power solution with important business benefits not available from traditional power sources.

Learn how to put fuel cells to work, contact us:

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