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**Sunday, September 10, 2006  
1:00PM – 5:00 PM**

## **Overview of the Benefits of Hydrogen Fuel Cells in applications for Telecommunications**

### **Tutorial Description**

Alternative energy sources, such as hydrogen, are being used for backup power sources in telecom and utility applications. Hydrogen Fuel Cells have been deployed worldwide and are gaining momentum. Their popularity is rapidly growing due to increased costs of petroleum based fuels, noise pollution caused by traditional combustion engines operating in densely populated areas, and government tax incentives for using alternative fuels. The success of Hydrogen Fuel Cells depends on safety, reliability and operating environment.

In this tutorial, the Hydrogen Fuel Cell will be discussed in simple terms. The advantages and the disadvantages for deployment in backup applications will be pointed out and the critical factors which can affect capacity and system reliability will be discussed. Hydrogen Fuel Cell maintenance, fuel sources and monitoring issues will be addressed.

### **Who Should Attend?**

Engineers involved with and responsible for backup power systems.

Power Capacity Managers seeking a lightweight, small footprint, environmentally friendly solution to backup power.

System engineers working with standby, backup and uninterruptible power systems  
Managers seeking new applications, technology advancements and alternative fuel sources.

Individuals wanting to augment existing battery systems with fuel cell technology.

### **Benefits of Attending:**

Gaining understanding of Hydrogen Fuel Cell technologies.

Selecting the right application for Fuel Cell deployment.

Learning the critical, system level factors when using Fuel Cells.

Understand monitoring needs for Hydrogen Fuel Cells.

Improve system reliability and longevity.

Opportunity to discuss your specific system needs.

Gain understanding of Hydrogen fuel availability and on-site storage options to allow unlimited hours of backup power

### **About the Presenter**

Wayne Walden has over 28 years experience in manufacturing, engineering, and training design and development in Power Systems. Wayne is currently the Training Manager for Tyco Electronics Power Systems, specializing in design, development and delivery of training to installation, engineering, and maintenance and operation personnel. Wayne has University degrees in Electronics and Business Management.