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H_2/ Fuel Cell Mobile Lighting

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Abstract

This talk will review a project whose principal aim is to help bridge the commercialization gap in the use of low-power proton exchange membrane (PEM) fuel cells. The development team consists of Sandia, Boeing, The California Department of Transportation (Caltrans), Altergy Systems, Multiquip Inc., Ovonic Hydrogen Systems, San Francisco International Airport (SFO), Golden State Energy (GSE), Luxim, Lumenworks and Stray Light Optical Technologies. This team has come together to design build and demonstrate a mobile lighting system based on hydrogen/PEM fuel cell technology. The unit employs high-pressure storage of hydrogen, a 5 kW fuel cell, and a high efficiency plasma lighting system. The performance of the unit will be reviewed, along with the benefits accrued by using fuel cell technology.