

# MODERN, INTELLIGENT BACKUP POWER TECHNOLOGY TO KEEP INTERSECTIONS SAFE

## The only fully integrated fuel cell solution designed for traffic signals

Every year, people suffer injury or death resulting from intersection related crashes when traffic signals are not functioning. These outages, typically due to the failure of the aging, stressed US grid, are not going to improve any time soon. Thus, federal, state and city governments have been proactively providing backup power for signals and ITS equipment to keep the power on and intersection safe. When a traffic signal is backed up, the traditional solutions are batteries or generators, not due to their superior technology, but due to corporate inertia. Batteries are inherently unreliable, typically cannot provide long runtimes and require frequent replacement, while generators are dirty, noisy, large and break down too often. Luckily, better backup power is available now.

Altery has developed breakthrough fuel cell technology built to the highest standards, delivering the most reliable, clean and cost effective backup power solution. The Freedom Power Traffic Signal Platform (TSP) is the only fully integrated fuel cell solution for traffic signals on the market today.



### Altery's Freedom Power Traffic Signal Platform (TSP)

- Avoid Unpredictable Battery Discharges and replacement costs
- Eliminate pollution from dirty, noisy generators
- Simple, low cost maintenance
- Unlimited runtime with hydrogen refueling
- Compact footprint
- Made in USA

#### Altery's Freedom Power fuel cells provide freedom from:



# Altery Freedom Power TSP (Patent Pending)



TSP installation, Folsom CA

## Integrated System Specifications

### ■ 1kW Fuel Cell System w/On-Line Double Conversion UPS

- Typical traffic signal load: 350 W (flash mode)
- Typical traffic signal Load: 800 W (normal signal operation)
- Complete integrated power quality and backup power solution in a single cabinet
- 6 "K" cylinder fuel bay

### ■ Environmental Controls

- -40oC to 50oC (Note: air recirculation design will exhaust up to 65oC internal cabinet temperature upon system start-up and will bring-in cooler ambient air)
- Small heater
- Inlet air filter

### ■ Enclosure

- Fuel Bay – Meets or exceeds NFPA (55) criteria\*\*
- FCE Bay – Meets or exceeds FC1 criteria\*\*
- Overall Dimensions: 30"W x 38"D x 72" T
- Base Contact: 30"W x 20.25"D

### ■ Onboard Fuel Capability

- 54 kW-hrs w/6X "K" Cylinder Solution
- 155 hrs @ 350W load
- 68 hrs @ 800W load

### ■ Preventative Maintenance

- Clean or replace inlet air filter once/year or every 500 hours of operation.

*\*Specifications subject to change without notice*

*\*\*Certifications Pending*

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Leading the  
Fuel Cell Revolution