altergy®
Leading the Fuel Cell Revolution

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 fail to work during power outages. These outages, are typically due to the failure of the aging, stressed US grid, and are not going to improve any time soon. Thus, federal, state and city governments have been proactively providing backup power for signals and crossing equipment to keep the power on and intersections safe. When a traffic signal is backed up, the habitual solutions are batteries or generators. Batteries are inherently unreliable, generally cannot carry the load for long durations while generators emit harmful air and noise emissions, do not start reliably, and require high maintenance.

Altergy has developed a better solution, using its breakthrough hydrogen fuel cell power systems to deliver clean, sustainable, reliable power, cost effectively when the grid fails.

The Freedom Power Traffic Signal Platform (TSP) is the only fully integrated fuel cell solution for traffic signals on the market today.

Altergy's Freedom Power Traffic Signal Platform (TSP)

- Meets sustainability and climate change objectives
- Produces power with no greenhouse gas (GHG) emission
- Eliminates performance and replacement issues with batteries and generators
- Low initial capital cost
- Unlimited runtime with hydrogen refueling
- Smallest footprint, highest power density
- Made in USA

Altergy's Freedom Power fuel cells provide freedom from:

Altergy 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 ANSI, CSA 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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