

XSTORRA[®]

Solar-Hydrogen Hybrid Mobile System for Emergency Power

**Mobile Solar
Combined with
XStorra II Hydrogen
Energy Storage
provides power 24/7**



The XSTORRA[®] System is a fully integrated off-grid renewable energy storage and delivery system. The system is comprised of two M103 trailers packaged with a fold-out 5 kW solar array on one trailer and an energy storage system and control module on the second trailer. Excess solar power is converted into highpressure (2000psi) hydrogen stored on the vehicle in lightweight carbon fiber tanks. The stored hydrogen can be used to supply a 5 kW fuel cell for distributed power generation or the hydrogen could be used for other applications.

Additionally, a connection to diesel generators is provided to utilize wasted generation capacity for later use via the fuel cell when generator sets are operating on partial load or standby modes. An on-board MPPT/controller manages power distribution from storage in batteries or hydrogen to direct solar power feed and/or fuel cell power.

Key Advantages & Benefits

Humvee towable system
24/7 Power from solar with hydrogen storage
Rugged deployable systems
Plug-and-play deployment
Low noise/thermal signature
Modular Design for expandability

Storage and Control Trailer

5kW high pressure electrolyzer module with 2000 psi output pressure including feedwater and polishing system
5kW PEM fuel cell module
4 kWh battery control buffer storage system
Integrated system controller
30+ kWh hydrogen storage capacity

Solar Specifications

5 kw output
18 solar panels mounted on a lightweight aluminum structure
One person can open the panels and operate the hydraulic controls to unfold and tilt the solar array to optimize energy capture. 5kW in 15 minutes
Automatic hydraulic leveling/stabilization system for the trailer including leveling foot pads for soft surfaces
Hydraulic deployment and panel tilt system with cabled operating control switch including 24 volt battery and charging system

Inputs	Outputs
Power from solar trailer	110 VAC, 2 circuits each 20a GFI
3-Phase 220VAC (optional input)	4000W nominal 6000W surge
	Hydrogen gas for balloon filling