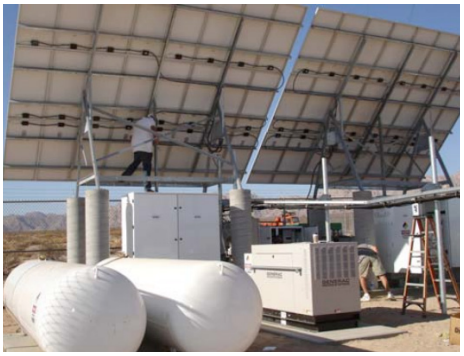
# SunWize® Power & Battery
## Hybrid Solar Power Systems

*www.sunwize.com/application-item/hybrid-power-systems/*

SunWize Age of Power Autonomy
www.sunwizepower.com

**For continuous loads of 500-5,000 watts**

*Solar & Generator Hybrid Telecom System 1*



*Solar & Generator Hybrid Telecom System 2*

*Solar & Wind Hybrid TrailerMounted System*

SunWize® Power & Battery Hybrid Solar Power Systems feature multiple renewable energy and dispatchable energy generation sources integrated with energy storage to provide continuous and reliable stand alone power to remote site loads. Solar technology provides year-round energy generation, while fuel cells, generators, thermo electric generators, or wind energy provide either baseload or complementary power, depending on design and application. There is no need to connect to utility power. Hybrid systems are designed for site loads requiring 12, 24 or 48 volts DC or 110V-240V 50Hz/60Hz AC.

## Fuel Cells | Generators | Wind
## Thermo-Electric Generators (TEG)

**Proven solution:** Hybrid systems provide the autonomy of stand-alone solar systems with the flexibility of fuel cell, TEG, wind, or generator integration.

**Reliability:** Provides redundant power generation, increasing reliability.

**Cost-effective:** Hybrid systems are cost-effective solutions that maximize space efficiency and can reduce fuel consumption and maintenance costs.

**Installation flexibility:** Ground, top-of-pole, A-frame, trailer, or self-standing skid options available for solar array mounting. Minimize setup and installation time for rapid deployment.

**Shipping and handling:** Systems are designed to withstand rugged transportation to remote sites. Fully assembled and factory warehouse QC tested.

## KEY FEATURES:

- Designed to IEEE 1561 - Guide for Optimizing the Performance and Life of Lead-Acid Batteries in Remote Hybrid Power Systems
- Meets your precise equipment electrical power requirements
- System load verified for voltage tolerances and duty cycle of operation
- System design verified for performance criteria, reliability and function
- Geographic location analysis provided
- Optional OEM hardware integration, such as fuel cells or wind turbines
- Ideal for locations with variable loads or sunlight conditions.
- Dispatchable energy sources compensate for deficiencies in solar energy
- Solid state electronics and UL, FM and CSA listed components
- 20/25-year solar module warranty
- Full system warranty for one year
- Pre-assembled for easy installation
- Low environmental impact
- Complete systems reduce specifying and buying time

# SunWize® Power & Battery
## Hybrid Solar Power Systems

SunWize Age of Power Autonomy
www.sunwizepower.com

## Technical Specifications

| Environmental Specification | |
|---|---|
| Ambient Temperature | -30ºC to 50ºC |
| Relative humidity | 100% condensing |
| Altitude | 3000m max |
| Wind Speed | 90MPH Standard / 110MPH Optional |
| Seismic | Zone 4 Optional |

| Electrical Specification | |
|---|---|
| Operating voltage range | From 6V up to 48VDC nominal |
| Solar Array current | From 10A up to 120A |
| Load current | From 5A to 120A |
| Temperature compensation | Standard on all models |
| Array wattage | From 1,200 to 7,200 watts |
| Battery capacity | From 1,000 to 12,000 Ah |

*Solar & Thermo-Electric Generator (TEG) Hybrid System*

### The System

- Provides uninterrupted power to the load with designed power reliability for application - based on weather, load, and insolation data specific to the site.

### Hybrid Input Sources

- Solar Energy | Fuel Cells | Generators | Wind Energy | Thermo-Electric Generators (TEG) | Grid Power

### The Solar Modules

- Premium 72-Cell Mono or Polycrystalline or 36-cell Junction Box Style
- Comply with industry standard wind exposure of 110MPH sustained, 133MPH gust.
- Impact resistant for 25mm hail at terminal velocity.

### The Batteries

- Designed for solar applications in deep-cycle operation.
- Battery life rated for greater than 500 cycles to 80% DOD. Total battery life varies with application temperature & load characteristics.
- Maintenance free and requires no watering or equalizing charge.

### The Controls

- Low voltage load disconnect, factory set for the battery type and system voltage used.
- Low voltage disconnect is set standard at 80% battery depth-of-discharge.

### Protection and Safety

- NEC compliant circuit protection.
- Finger safe terminal blocks and covers on all switches and breakers.
- All wiring is routed in liquid tight conduit for protection from damage and the elements

SunWize connect
www.dealer.sunwize.com

**Headquarters**
1337 Main Street
Philomath, OR 97370
(866) 827-6527