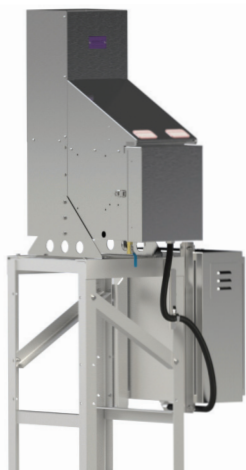




# Solar Hybrid Systems

Gentherm Global Power Technologies



**GENTHERM**   
GLOBAL POWER TECHNOLOGIES

## Global Solar Hybrid

We make solar work for the world.

There are times when battery-based solar systems fail to provide reliable power to critical systems, including:



Leak Detection



Cathodic Protection



SCADA



Security & Surveillance



Instrumentation



Pump Power

### Operational challenges for solar only systems include:

**Daily available sunlight:** no sun = no power.

**Extreme cold:** during winter months, solar systems fail due to extreme temperatures, snow covered solar panels, and reduced daily sunlight. These conditions prevent batteries from maintaining a consistent or minimal charge, often resulting in costly replacement due to failure.

**Extreme heat:** contrary to popular belief, batteries do not work well in extreme heat. In fact, extreme heat damages and degrades battery performance making frequent replacement the only option. Cost of batteries, along with cost of site visits, becomes a burden.

**The solution:** by incorporating a thermoelectric generator (TEG) to your site, you can eliminate system downtime while saving on operational costs (site visits, maintenance, battery replacement) in both the short- and long-term.



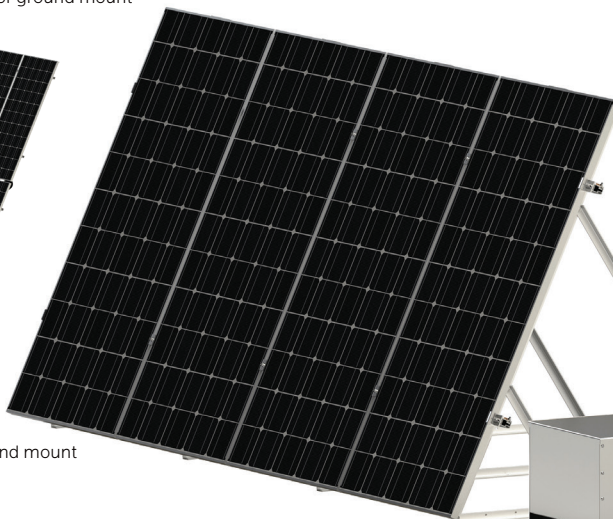
## Global Solar Hybrid



Photovoltaic (PV/Solar) array; pole or ground mount



Pole mount



Ground mount

Thermoelectric generator (Model 5100 shown)



Manual or remote start

Natural gas or propane

Charge control unit

Available system loads:

~ 50W

~ 100W

~ 200W

~ 500W



Most reliable remote power solution available on the market today



Lowest operating expense on the market



Commercially available fuel vs. imported competitor fuels

# The Solar Hybrid Advantage

Any season. Any weather. Any time.



Low emissions



Optimizes and extends battery life



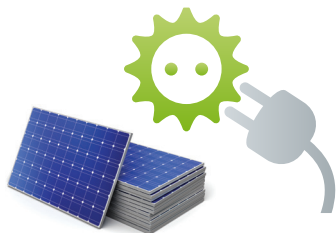
Minimal annual maintenance



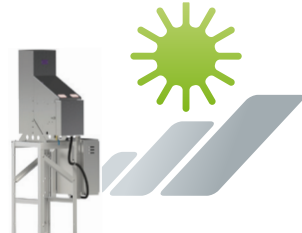
## Retrofit your existing PV system

Choose a complete system or simply add a TEG or solar array to your existing site to enjoy the benefits of a TEG/Hybrid solution.

+ Add Solar to TEG



+ Add TEG to Solar



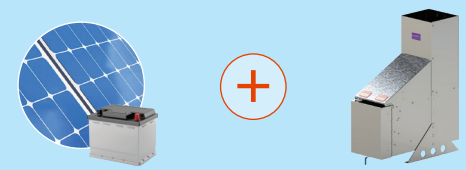
### Power where you need it.®

#### Features & Benefits:

- ✓ 50–500 watt systems available.
- ✓ 12V or 24V output.
- ✓ Lowest operational cost on the market.
- ✓ Optimizes & extends battery life.
- ✓ Minimizes fuel consumption.
- ✓ Small environmental footprint.
- ✓ Remote monitoring.



Simply add a TEG to your existing site, to create a powerful, energy efficient, hybrid system.



The most reliable remote power system available on the market today.



**Power where you need it.®**

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