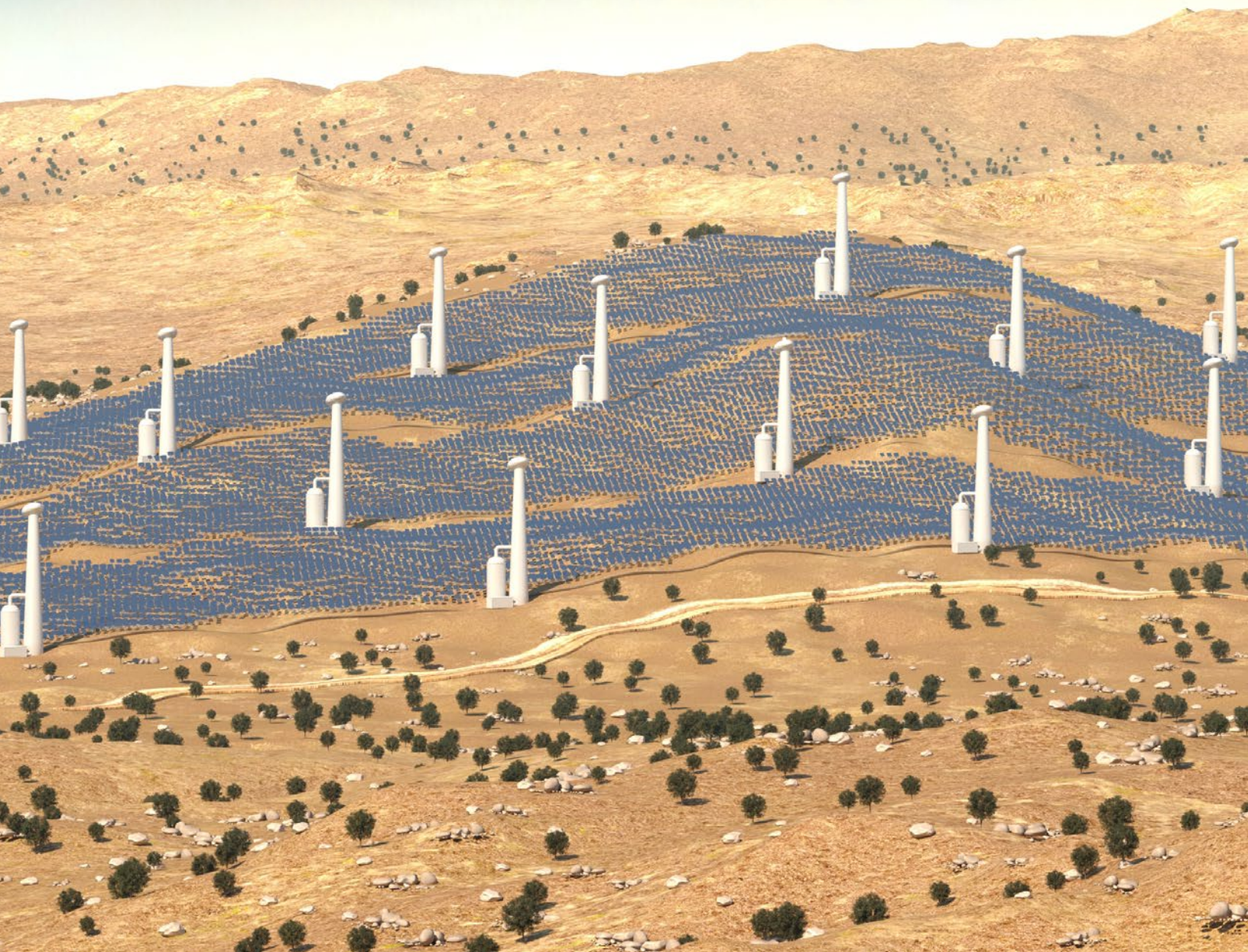


**247**SOLAR

**AFFORDABLE,  
BASELOAD  
CLEAN POWER**  
**24/7/365**





## REIMAGINE SOLAR ENERGY

Thank you for your interest in mass-produced, turnkey 247Solar Plants™.

The world needs affordable, clean electricity 24/7 every day of the year, not just when the sun shines or the wind blows. For just a few hours of backup power, batteries are super expensive. The only clean 24/7 technology, conventional Concentrated Solar Power (CSP), is complex, costly, and viable only at large scale.

Our 247Solar Plants overcome these limitations while adding the best of both technologies: the mass production and simplicity of PV, plus the 24/7 operation of CSP. Add the modularity of 247Solar Plants, and—*voilà!*—24/7 solar power at almost any scale, from distributed and off-grid applications as small as 400 kWe, to utility-scale farms.

247Solar Plants offer low-risk, profitable business opportunities, while addressing society's most pressing challenge—bringing affordable clean energy solutions to the task of slowing climate change.

I invite you to read on and learn more about this game-changing way to produce electricity. Contact me directly to explore the opportunities our proprietary technology presents for investors, power project developers, and for the planet we share.

Here's to doing well while doing good,

**Bruce Anderson**  
CEO - 247Solar, Inc.

## TABLE OF CONTENTS

247Solar Plants™	05
Modular, Mass-Produced CSP	06
Power Generation	08
Economic Development	10
Industrial Applications	13
Unequaled Economics	14
Breathtaking Business Opportunities	14



# 247SOLAR PLANTS™

### Baseload 24/7 clean power

247Solar, Inc. breaks down barriers of complexity and cost with a turnkey solution for producing electricity around the clock at costs competitive with PV today and with coal tomorrow at scale. Called the 247Solar Plant™, it eliminates most disadvantages of conventional CSP, PV, wind, and traditional power technologies. Its hot-air-driven Brayton Cycle system operates at atmospheric pressure and requires no steam, molten salts, or heat transfer oils.

### Scalable modular design

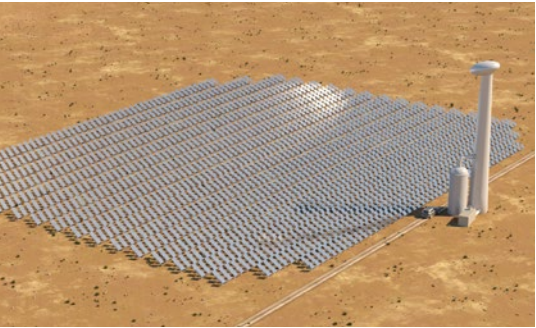
Unlike large, custom-engineered, first-generation CSP projects, 247Solar Plants are standardized modules of 400 kWe capacity, scalable from a single Plant off-grid to utility-scale farms of virtually unlimited capacity. 247Solar Plants use factory-made components, most of which can be manufactured locally, with few moving parts, for low maintenance and rapid, low-cost deployment.

### Low-cost thermal storage

The 247Solar Thermal Storage System™ stores up to 15 hours of the sun's energy as heat instead of electricity. To guarantee electricity on demand, the Plant's turbine can also burn a variety of fuels. Unlike other renewables, 247Solar Plants stabilize grids with flexible, responsive, firmly dispatchable, 100%-reliable power.

### Unmatched benefits

247Solar Plants offer outstanding grid reliability and resilience with no requirement for emergency backup. They provide battery-like response to grid voltage and demand fluctuations, mitigating intermittency from other renewables. Short project cycles, lower O&M, and competitive margins mean attractive returns for investors.



## LOWEST COST 24/7 SOLAR ELECTRICITY

- World's most versatile, reliable power generator
- World's highest temperature solar air heater: 970°C
- World's lowest cost thermal storage: < 5% cost of batteries
- World's lowest-cost heliostats, deployable on uneven ground.

### ORIGINATED AT



### OUR PARTNERS



# IMAGINE... MODULAR, MASS-PRODUCED CSP

Turnkey, rapidly deployable Concentrated Solar Power that...

## Offers the best of PV

- + Low cost, low risk
- + Rapid deployment
- + Small to large scale

## Plus the best of CSP

- + 24/7 operation
- + Dispatchable

## Without the disadvantages of PV

- Sunshine-only operation
- Not dispatchable

## Or the disadvantages of conventional CSP

- Cost
- Risk, complexity
- Financing challenges
- Long project cycles

## Unique advantages

- ▶ Instant grid stabilization
- ▶ Flexible operation
- ▶ No emergency backup required
- ▶ Cost-free, instantly-responsive spinning reserves
- ▶ Waste heat available for industrial applications

“The most transformative energy technology I found in searching the solar and broader renewable energy industry /energy/storage/smart grid industries for 18 months.”

**Jeff Wolfe**

CEO, HelioFire and PV veteran

## Breakthrough technology

247Solar Plants™ are true third-generation CSP systems that use a breakthrough solar receiver design and proprietary thermal storage system, combined with other proven technologies and off-the-shelf components, to produce the world’s lowest cost 24/7 solar electricity. Each plant is constructed from just five pre-engineered, standardized sub-systems.

## How it works

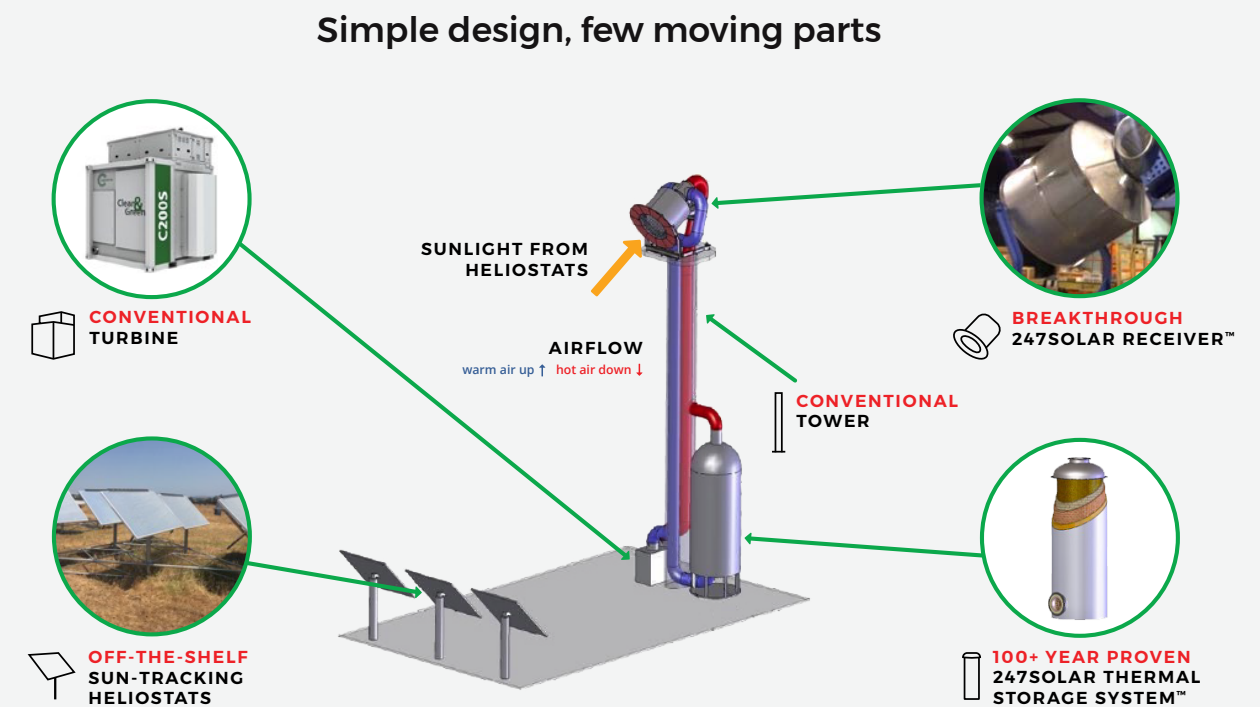
**Heliostats:** A 4-acre (~1.6 hectare) field of off-the-shelf, pole-mounted solar mirrors tracks the sun and focuses ~1500 suns of energy onto the solar receiver.

**247Solar Receiver™:** Our innovative high-temperature receiver operates at atmospheric pressure and heats air to 970C—50% hotter than conventional CSP.

**Power Tower:** The receiver sits at the top of a conventional tower system that includes standardized, factory-built ducting, blowers, and electrical components. At 120’ (~35m) tall, this tower is less than ¼ the height of some CSP installations.

**Turbine:** An off-the-shelf turbine uses compressed hot air instead of steam to produce up to 400 kWe on demand. The turbine package includes a proprietary 247Solar Heat Exchanger™, which transfers solar heat from the receiver to compressed air from the turbine’s compressor.

**247Solar Thermal Storage™:** Hot air that’s not used by the turbine is routed to the 247Solar Thermal Storage System™, which stores up to 15 hours of the sun’s energy as heat in simple firebrick or ceramic, to power the turbine when the sun is not shining. The turbine can also burn conventional fuels or biofuels for backup.



# POWER GENERATION

## Conventional power generation – 400 kWe to utility scale

247Solar Plants™ support power project sizes ranging from 400 kWe to large central plants of virtually unlimited capacity. They are deployable on uneven ground and use no water/steam, molten salts, or oils to minimize environmental impact and streamline permitting. With capacity

factors approaching 100%, 247Solar Plants offer predictable and stable electricity prices over time, without the need for backup facilities. Because all 247Solar components are pre-engineered and factory-produced, projects are low-risk and financeable, and project cycles are short.



## Low-cost alternative to gas peakers and batteries

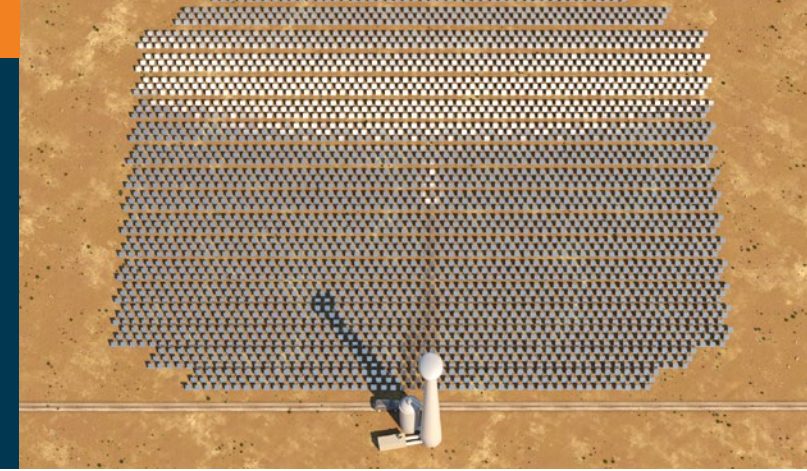
Unlike PV and wind, 247Solar Plants operate instantaneously, day or night, delivering power as needed, not just when the sun shines or the wind blows. Responsiveness to grid voltage and

frequency fluctuations rivals that of batteries, making 247Solar Plants a natural, lower-cost alternative to gas peakers and batteries when PV and wind are offline.

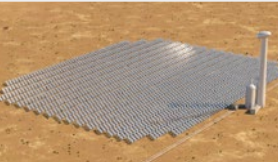



### EXAMPLE ECONOMICS (BASED ON 5MW GRID-CONNECTED INSTALLATION)

	CAPEX (\$Million)	Capacity Factor (%)	Output (kWh/yr)	CAPEX (\$/kWh/yr)
<b>247Solar Plants™</b>	<b>28</b>	<b>85-90%</b>	<b>40,000,000</b>	<b>\$0.70</b>
<b>PV + Batteries</b>	<b>8</b>	<b>18-23%</b>	<b>9,000,000</b>	<b>\$0.88</b>
<b>Conventional CSP</b>	<b>40</b>	<b>65%</b>	<b>25,000,000</b>	<b>\$1.60</b>
<b>Wind</b>	<b>9</b>	<b>35-45%</b>	<b>15,000,000</b>	<b>\$0.60</b>

**Low Maintenance:** Simple components, proven technologies, and few moving parts mean high reliability and low maintenance. No on-site operators are required, and local talent can easily operate and maintain the system.



### FEATURES AND BENEFITS

	 247Solar Plants™	 PV + Batteries	 Conventional CSP	 Wind
<b>Low-cost, low-risk</b>	✓	✓	✗	✓
<b>Rapid deployment</b>	✓	✓	✗	✓
<b>Small to large scale</b>	✓	✓	✗	✓
<b>24/7 operation</b>	✓	✗	✓	✗
<b>Dispatchable</b>	✓	✗	✓	✗
<b>Strengthens the grid</b>	✓	✗	✗	✗
<b>Simplicity</b>	✓	✓	✗	✓
<b>Short project cycles</b>	✓	✓	✗	✓
<b>Flexible operation</b>	✓	✗	✗	✗

“(247Solar’s CSP solution) is a revolution waiting to happen.”

**Belén Gallego**  
*Founding CEO, CSP Today*



**Factory-Built Components:**  
 247Solar Plants use standardized, mass-produced components that require minimal custom engineering, allowing for rapid site assembly, shorter project cycles, and lower component costs with volume.

## ECONOMIC DEVELOPMENT

Individual 247Solar Plants™ of 400 kWe each can be located as standalone power plants near villages, or interconnected into mini-grids. Mini-grids can be connected to each other or to larger networks at any time. Modular design means capacity can be increased as needed to meet growing demand.

At the site of each Plant, up to 1.6 million BTU. of exhaust heat can be harnessed for water purification, crop refrigeration (using absorption chilling), crop drying, or other industrial applications.

Many components can be manufactured in local markets. Up to 50% of the cost of the system can be directed to local economies for job creation. The simplicity of the system allows for operation and maintenance by local personnel, as well.

Component	Sourced Locally	Supplied
Solar Receiver		✓
Power Block		✓
Heliostats		✓
Tower	✓	
Storage	✓	
Ductwork	✓	
Blowers	✓	
Electrical	✓	
Construction	✓	
Maintenance	✓	





**Turnkey Systems:** 247Solar Plants are pre-engineered modules that use mostly proven technologies for higher reliability, lower technical risk, and easier financing.



## INDUSTRIAL APPLICATIONS— COMBINED HEAT AND POWER (CHP)

247Solar Plants™ are deployable off-grid to provide power and heat for a variety of industrial and commercial applications that often rely on diesel gensets. Examples include military bases, islands, villages, mines, oil/gas fields, and others. Unlike gensets, which only generate electricity, 247Solar Plants can also provide up to 1.6 million BTU. of industrial-grade heat, creating two streams of cost savings.

### COMPARATIVE DIESEL FUEL SAVINGS: 247SOLAR PLANT VS. PV

	247Solar Plant	PV
Capacity, electricity: kWe	400	400
Capacity, heat: gal/hr of diesel equivalent	12	0
Annual output, electric: kWh/yr	3,000,000	720,000
Annual output, heat: gal/yr of diesel	95,000	0
Annual value, heat @\$3/gal diesel, \$/yr	285,000	0
Annual savings, electric: gal/yr of diesel	220,000	52,000
Annual savings, electric: @\$3/gal diesel, \$/yr	660,000	156,000
<b>Total annual value of energy produced: \$/yr</b>	<b>945,000</b>	<b>156,000</b>

### ADDITIONAL ADVANTAGES

	247Solar Plant	PV
Land requirements	< 2 hectares	~1.5 hectares
Power availability	24/7	Sunshine only
Heat availability	24/7	NA

## UNEQUALED ECONOMICS

### Rapid, low-risk return on investment

247Solar Plants™ offer a low-risk, financeable, and rapidly-deployable turnkey clean power solution with 24/7 operation.

- ▶ Less expensive to build per GWh/yr than PV
- ▶ Less land required per GWh/yr than PV

### EXAMPLE CUSTOMER PROFIT OPPORTUNITY

*\*Example only, not an offer. US prices.*

CAPEX (5MW capacity)	\$28,000,000
Annual power generation, kWh/yr	40,000,000
Savings in diesel use, gal/yr	2,500,000
Savings in diesel use, @\$3/gal, \$/yr	\$7,500,000
O&M @1.5 cents/kWh, \$/yr	(\$600,000)
<b>Net annual savings, \$/yr</b>	<b>\$6,900,000</b>



## BREATH-taking BUSINESS OPPORTUNITIES

247Solar Inc. invites power project developers to consider its breakthrough technology for projects worldwide. 247Solar Plants offer:

### A profitable investment

- ▶ High profit margins on the sale of power
- ▶ Lower CAPEX per kilowatt-hour than most forms of power; e.g., coal and PV
- ▶ Excellent cash flow
- ▶ Reduced risk of cost overruns
- ▶ Positioning to capture a large share of your electricity market
- ▶ Local branding rights
- ▶ High reliability, simple operation and maintenance
- ▶ Control of time-of-day power generation based on best electricity prices available

### Short, low-risk project schedules

- ▶ Minimal custom engineering
- ▶ Comparatively rapid project permitting, few environment challenges
- ▶ Relative ease of project financing, high reliability, mostly proven components
- ▶ Rapid deployment leading to quick sale of power
- ▶ Required technical, construction, and operation expertise suited to local talent

### Tell us about your project.

When we talk, here's what we'll need to know to answer your questions in a meaningful way...

Country & Region

Project Size (MW)

DNI (Direct Normal Irradiation), if known

Expected average tariff for power produced

Duration of demand (24/7 or as needed)

Combined heat and power or power only?

### Contact us directly for an in-depth consultation and proposal.

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## 247Solar Board of Advisors

**David Rank:** 27-year veteran of the U.S. State Department's Foreign Service, including acting ambassador at the U.S. Embassy in Beijing

**David M. Walker:** senior vice president of Bechtel Group (retired)

**S. David Freeman:** former head of the Sacramento Municipal Utility District (SMUD), the Tennessee Valley Authority (TVA), the New York Power Authority, and the Los Angeles Department of Water and Power (DWP)

**Robert Hemphill:** former CEO of AES Solar and executive vice president (retired) of AES Corp (4th largest global utility)

**Dave Belote:** former commander of Nellis Air Force Base

“247Solar’s CSP concept has enormous potential—  
a home run.”

**Dr. Fred Morse (“Mr. CSP”)**

*Directed DOE’s solar program under presidents Carter & Reagan*