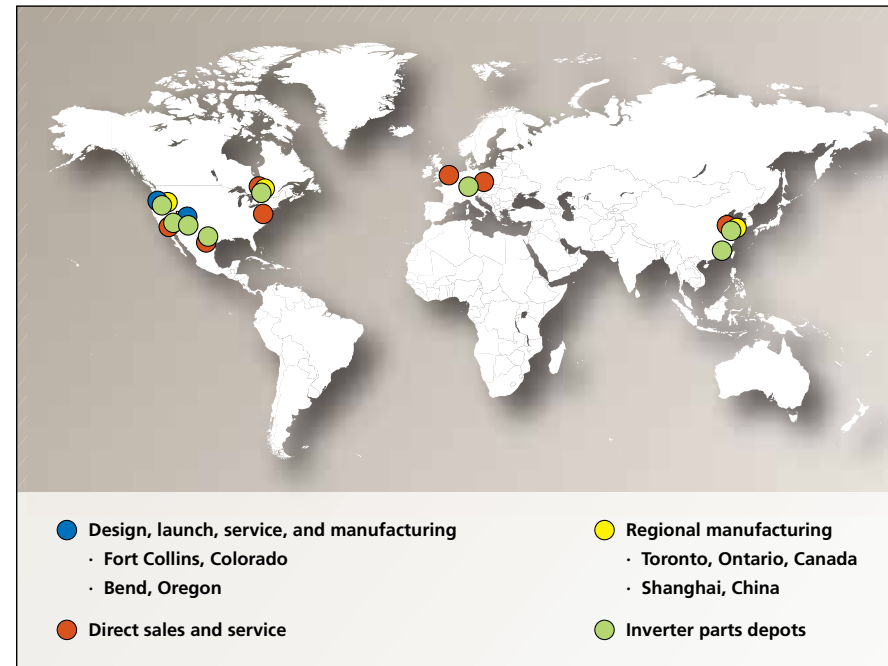


Advanced Energy offers inverter solutions and services that improve PV system performance and reduce costs, driving the industry closer to grid parity for commercial and utility-scale PV. The innovation in Advanced Energy® Solaron® inverters supports a fundamental shift to today's more exacting PV system metric—the levelized cost of energy (LCOE), measured in ¢/kWh, which requires a balance of high system performance, low BoS costs, and low, ongoing operations and maintenance costs.

## AE Worldwide Operations



### Unlock the Full LCOE Potential of Your PV System

Achieve the lowest LCOE for the entire lifecycle of your PV projects. Maximize power, lower BoS costs, and lower O&M costs.

To run an LCOE analysis and compare results for yourself, we encourage you to visit <https://www.nrel.gov/analysis/lam>.

To get started with an AE Solaron product, contact us directly at 800.446.9167 or +1.970.221.0108, or visit [www.aesolaron.com](http://www.aesolaron.com).



Specifications are subject to change without notice.



Advanced Energy Industries, Inc. • 1625 Sharp Point Drive • Fort Collins, Colorado 80525 U.S.A.  
T: 800.446.9167 or 970.221.4670 • [support@aei.com](mailto:support@aei.com) • [www.advanced-energy.com](http://www.advanced-energy.com)

### Advanced Energy World Headquarters

Advanced Energy World Headquarters  
1625 Sharp Point Drive  
Fort Collins, CO 80525  
USA  
Toll-free: 800.446.9167  
Phone: +1.970.221.0108  
Fax: +1.970.407.6550  
[www.advanced-energy.com](http://www.advanced-energy.com)  
[sales.support@aei.com](mailto:sales.support@aei.com)

### Advanced Energy—Bend, Oregon

20720 Brinson Blvd  
Bend, OR 97708  
USA  
Phone: +1.541.312.3832  
Fax: +1.541.312.3840  
<http://www.pvpowered.com/>

### Germany

Raiffeisenstrasse 32  
70794 Filderstadt  
Germany  
Phone: +49.711.77927.0  
Fax: +49.711.7778700  
[www.advanced-energy.de](http://www.advanced-energy.de)  
[support-de@aei.com](mailto:support-de@aei.com)

### Korea

#701 Sicox Tower  
513-14, Sangdaewon-Dong,  
Jungwon-Gu, Sungnam-Si, Kyunggi-Do,  
462-806, Korea  
Phone: +82.31.777.9191  
Fax: +82.31.777.9195  
[www.advanced-energy.co.kr](http://www.advanced-energy.co.kr)  
[aeksupport@aei.com](mailto:aeksupport@aei.com)

### Japan

2971-8 Ishikawa-cho, Hachioji-shi  
Tokyo 192-0032  
Phone: +81.42.645.8121  
Fax: +81.42.645.6145  
[www.advanced-energy.co.jp](http://www.advanced-energy.co.jp)  
[aej\\_sales.info@aei.com](mailto:aej_sales.info@aei.com)

### China

Room 401, Building 7  
No. 1888 Xin Jinqiao Road  
Pudong Area  
Shanghai 201206 China  
Phone: +86.21.5570 1231  
Fax: +86.21.5899 7901  
[www.advanced-energy.net.cn](http://www.advanced-energy.net.cn)  
[aecsales@aei.com](mailto:aecsales@aei.com)

### Taiwan

10F, No. 110, Chung Shan Rd., Sec 3,  
Chungho City  
Taipei Hsien, Taiwan 235, R.O.C.  
Phone: +886.2.82215599  
Fax: +886.2. 82215050  
[www.advanced-energy.com.tw](http://www.advanced-energy.com.tw)  
[aet.sales@aei.com](mailto:aet.sales@aei.com)



Photovoltaic Inverter Solutions Portfolio  
Enabling the Lowest Levelized Cost of Energy

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ENG-SolaronFamily-230-030 1M 12/10

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## Commercial & Utility Inverters

### Solaron® 250

Compact, outdoor-ready PV inverters suitable for commercial rooftops



Max Power	250 kW AC
Efficiency	97.5% CEC
Peak Efficiency	98.1%
Thermal Envelope	Full power up to 50°C (122°F)
Options	Cold weather operation

Reduce footprint and noise at commercial sites  
Convert DC power more efficiently and reliably  
Process power longer with a wide, fast, proprietary MPPT window

### Solaron® 333

High-efficiency inverters, ideal for large commercial PV installations



Max Power	333 kW AC
Efficiency	97.5% CEC
Peak Efficiency	98.3%
Thermal Envelope	Full power up to 50°C (122°F)
Options	Cold weather operation, Remote PV Tie (RPT)

Get maximum kWh output  
Reduce BoS costs with transformerless design and smallest footprint in its class  
Expect the most reliable energy conversion

### Solaron® 500 / 500E / 500 1 kV

Durable, robust, 500 kW building blocks for utility-scale PV installations



Max Power	500 kW AC
Efficiency	97.5% CEC 98.1% European
Peak Efficiency	98.6%
Thermal Envelope	Full power up to 50°C (122°F)
Options	Cold weather operation, RPT, AC/DC disconnect, utility controls

Achieve faster PV system ROI  
Reduce material and labor costs with fewer, smaller pads  
Lower BoS and improve reliability with fewer medium-voltage transformers

### Solaron® 1000 / 1000E

Next-generation 1 MW technology for industry-leading LCOE



Max Power	1 MW AC
Efficiency	Industry leading
Peak Efficiency	Industry leading
Thermal Envelope	Full power up to 50°C (122°F)
Options	Cold weather operation, RPT, optional disconnects, advanced utility controls

Reach exceptional system performance ratios  
Provide utility-interactive controls  
Improve PV system designs with greater flexibility for large, multi-section solar farms

### PowerStation™ 1 to 2 MW

Integrated Base Station  
Integrated solution for utility-scale, multi-megawatt PV projects



Max Power	1 to 2 MW
Configurations	Open, enclosed
MV Transformer	Parallel connect, single winding
Thermal Envelope	Full power up to 50°C (122°F)
Options	Cold weather operation, RPT, AC/DC disconnect, advanced utility controls

Optimize LCOE for large projects  
Reduce project engineering, material, and field labor costs  
Simplify connections between DC array and grid

## Global Services & Accessories

### Product Warranties

Coverage for 5 to 20 years

Receive comprehensive 5 year standard inverter warranty  
Extend warranties up to 20 years  
Access worldwide technical support 24 x 7 x 365



### SafeGuard® PM Services

Customized Solaron preventive maintenance programs

Maximize uptime with remote testing, diagnostics, and controls  
Safeguard your investment, letting AE manage PM and annual inspections  
All parts and labor included



### SafeGuard® 99% Uptime Guarantee

A new class of service, ensuring your inverter is operational, rain or shine

Rely on uninterrupted peak performance  
Virtually eliminate downtime with a rain-or-shine algorithm  
Receive compensation should the inverter fall below 99% uptime



### SiteGuard® O&M

Customized PV site operations and maintenance service programs

Recover quickly from unplanned outages  
Coordinate geographically dispersed installed base with a single, global, service organization  
Replace fixed costs with variable costs



### IDS™ Communications

Integrated data system, enabling remote monitoring for every inverter

Access performance data remotely  
View real-time temperature, current, voltage, and other data  
Save data to 10 year / 2 GB SD card



### Remote PV Tie (RPT™) 333 / 500 Accessories

Cable-saving RPT™ accessories for greater flexibility in PV design architectures

Dramatically reduce cable costs  
Eliminate common installation obstacles  
Gain up to +2% additional efficiency



### Certifications

Meets UL and CE requirements

ISO 9001 processes and manufacturing  
Certified regulatory compliance worldwide  
Worldwide quality assurance



## Why AE?

Founded in 1981, Advanced Energy is an established global leader in high-performance, power-conversion applications. AE's leading solutions offer energy precision, unsurpassed uptime, and long lifecycles in markets such as:

### Renewable Energy

Solar grid-tied inverters  
Solar photovoltaic cells  
Passive solar architectural glass coatings

### Thin-Film Technology

Semiconductors  
Flat panel displays  
Data storage media

## Innovation Heritage

AE has generated over 100 power-conversion-related patents worldwide and continues to develop a solid patent position relative to its inverter development. The Solaron platform incorporates soft-switching, high-power IGBT engines and liquid-cooling to enable >98% peak efficiency and 20 year design life.



## Lifecycle Services

AE customers insist on long-term support programs and responsiveness measured in hours, not days. AE Global Services provide a single resource for PV site preventive maintenance (PM), PV site O&M support, and inverter uptime performance guarantees.

## Quality—Zero Defects

Zero defects, measured at the point of customer commissioning, is our goal to ensure customers enjoy a hassle-free and efficient power-up process.

## Operating Scale

AE's global infrastructure and purchasing scale ensure operating efficiencies and cost effectiveness for customers. AE recently tripled Solaron production capacity to support its growing customer base and larger PV projects.

## Lowest Levelized Cost of Energy—LCOE

LCOE accounts for up-front capital costs, inverter power-conversion performance, and service expenses. The bottom line for Solaron customers is that they can achieve the lowest cost of producing energy over the entire project lifecycle.

## Bankability

Advanced Energy is publicly traded on the NASDAQ, ticker AEIS, and our financial information is available through the Securities and Exchange Commission and at [www.advanced-energy.com](http://www.advanced-energy.com).

## Reliability—Uptime

AE's heritage in the semiconductor industry embedded an intolerance to downtime and the expectation for long product life.