



THE SMART CHOICE FOR LASTING PV PLANT SUCCESS

 **SOLECTRIA**
RENEWABLES

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SETTING THE STANDARD FOR UTILITY-GRADE PV SOLUTIONS



Solectria Renewables, LLC is a leading grid-tied PV inverter manufacturer based in Lawrence, Massachusetts. Founded in 2005, Solectria offers a versatile line of high-efficiency/high-value inverter solutions supported by exceptional engineering talent and world-class warranties.

Solar power is reaching cost parity with conventional energy sources in North America, driving aggressive demand for large solar projects and project portfolios. Those that will be successful need the best technology from reliable partners. Solectria Renewables is the right choice for large commercial and utility-scale projects.

SOUND

A secure partner invested in your success: Solectria is profitable, financially stable, and privately held. As a U.S.-based manufacturer and certified Woman Owned Business, Solectria is also the perfect partner for federal and U.S. military solar projects.

SIMPLE

Simple innovative technologies at exceptional value: Built on 25 years of experience with power electronics and inverters, Solectria's elegant designs lower costs and improve reliability. Solectria's solutions deliver 99+ percent uptime, and are engineered to work with current and future North American grid standards.

SMART

Ready for the utility grid of today and tomorrow, Solectria is committed to developing the next generation of utility-grade systems that ensure grid stability and enable higher penetration. It is partnering with EPRI and leading utilities along with the U.S. Department of Energy SunShot program to develop and test technologies that accommodate evolving standards.

SUSTAINABLE

Sustainable solutions backed by a solid, secure team, Solectria offers exceptional engineering support throughout the project lifecycle, including a world-class customer support team committed to rapid and professional response.

"[Solectria's] sales and service team were supportive on every level. That, combined with their unprecedented inverters with 98% CEC efficiency and unbelievable reliability, makes them our preferred inverter partner."

Andrew Goldin, Senior Vice President of EPC Operations, Cenergy Power



CREATING JOBS FOR AMERICA

Solectria was featured in the inaugural ranking of *Inc. Magazine's* Hire Power Awards, recognizing private businesses that have generated the most jobs in the past three years. Between 2008 and 2011, Solectria Renewables has grown by over 500% generating 200 jobs, ranking as the #1 Energy Sector job creator in Massachusetts, and placing it among the top 10 private business job creators within the U.S. energy industry.



THE SOUND CHOICE FOR UTILITY-SCALE INVESTMENTS

Solectria is a steady, secure partner with the right combination of financial security, high-value/high-reliability solutions, and utility-scale expertise.

FISCAL HEALTH

Solectria offers customers and partners the security of fiscal health. Profitable every quarter since 2007, the Company has substantial lines of credit from solid financial institutions to ensure continued investment in product development and manufacturing to support even the largest PV projects.

TECHNOLOGY LEADERSHIP

Solectria has honed its industry-leading technology over 25 years, providing the most efficient and reliable solutions available today with proven reliability in even the harshest of conditions. The SMARTGRID inverter series, for example, is the industry's first and only 97.5% CEC efficient central inverter with integrated transformer.



“Solectria is a transparent, honest, and trustworthy company. Its U.S. focus is absolutely important – unlike many other manufacturers, Solectria’s equipment was designed from the beginning to meet U.S. standards.”

Aron Anderson, Director of Estimating, Wanzec Construction, a division of Mastec

EXPERIENCE

Thousands of U.S. projects ranging in size from 50kW to 30MW rely on Solectria inverter solutions. Solectria partners with PV owners, investors, project developers, and EPCs throughout North America to build high-performing PV systems, from residential rooftops to the world’s largest CPV plant.

NORTH AMERICAN PV FOCUS

Solectria is a U.S. manufacturer with more than 1000MW of production capacity in Lawrence, Massachusetts. The Company is focused exclusively on the PV industry, dedicating 100% of its resources to improvements in power conversion technology and customer satisfaction.



SIMPLE SOLUTIONS FOR NEXT-GENERATION PV SYSTEMS

Solectria's inverters offer outstanding product performance and advanced features anticipated for the next generation of distributed generation PV projects. With a focus on elegant designs using minimal subassemblies to speed manufacturing and

ease of installation, Solectria's inverter solutions increase efficiency, extend uptime, and provide maximum return on investment. Solutions range from 50kW to 2MW, and are manufactured in the U.S.A. to be ARRA compliant and listed to UL 1741/IEEE 1547.

“Argand Energy Solutions has used Solectria Renewables’ inverters because of their ease of use and installation, flexibility, reliability and various features you cannot find with other inverter manufacturers. For our first utility-scale ground mount system, there was no question we’d use their SGI 500XT’s with 98% efficiency.”

Clay Hartman, Chief Operating Officer, Argand Energy Solutions on the company’s choice to power the 2.3MW Franklin County Solar Farm in Louisburg, North Carolina.

PVI SERIES

Solectria's series of PVI commercial inverters are the most customizable commercial grid-tied PV inverters available today. Offering the highest peak and CEC efficiencies in the industry, they include options such as intelligent communications, real power curtailment, reactive power control, and voltage and frequency ride through. Customers have chosen Solectria's PVIs for projects ranging from 50kW up to 30MW.

SGI SERIES

Solectria's SMARTGRID inverters boast industry-leading CEC efficiencies - 97.5% with integrated transformer or 98% with external transformer - and deliver exceptional reliability and economy. The SGI XT and XTM inverters are designed for direct connection to an external transformer and include advanced grid management features such as fault ride through, real and reactive power control, and power factor control. These inverters are deployed in a large number of commercial and utility-scale systems across North America ranging from 200kW to multi-MW.

MEGAWATT SOLAR STATIONS

Solectria's Megawatt Solar Stations (MSS) are fully-integrated solutions for medium voltage applications. They include up to four inverters, padmount transformer, and switchgear, greatly simplifying field installation. They are available as an open skid, enclosure or canopy.

“Enabling utilities to control our SMARTGRID inverters (SGI) is the next big step toward a smarter grid that can accommodate a very high PV penetration density in a safe, secure, efficient and reliable manner.”

*Michael Zuercher-Martinson, CTO,
Solectria Renewables*



PLANT MASTER CONTROLLER

Solectria's Plant Master Controller (PMC) provides a master station for integrated control of PV plants. Designed to reduce the burden on SCADA communications, the PMC is a single, intelligent device to coordinate control of distributed generation assets.

COMMERCIAL & UTILITY PROJECT EXPERIENCE

[OVER 500 MW INSTALLED IN NORTH AMERICA]



Project: Indianapolis Airport Solar Farm • **Location:** Indianapolis, IN
System Size: 10MW • **Installer:** Cenergy • **Product:** (20) SGI 500XT



Project: Westford Solar Field • **Location:** Westford, MA
System Size: 4MW • **Installer:** NexAmp • **Product:** SGI 500



Project: Hatch Solar Farm • **Location:** Hatch, NM • **System Size:** 5MW • **Installer:** Amonix • **Product:** (84) PVI 82KW



Project: Gainesville Solar Farm • **Location:** Gainesville, FL
System Size: 5MW • **Installer:** Sybac Solar • **Product:** (10) SGI 500



Project: Campo Verde High School • **Location:** Gilbert, AZ
System Size: 400kW • **Installer:** Solar City • **Product:** (4) PVI 82 KW

SMART MANAGEMENT FOR GRID INTEGRATION AND COLLABORATION

North American utilities are calling for smart inverter solutions to enable higher penetration of PV installations, while maintaining power quality and reliability. Solectria is committed to meeting the needs of the future with Smart Inverters that ensure grid stability and accommodate evolving industry standards.

SOLECTRIA'S SMART INVERTERS MEET UTILITY DEMANDS, OFFERING

- Advanced Communication
- Real and Reactive Power Support
- Dynamic VAR Injection
- Voltage and Frequency Ride Through
- Randomization of Timing for Trip and Reconnection

SOLECTRIA'S SMART INVERTERS IMPROVE POWER QUALITY AND EXTEND ASSET LIFE

- Reduce Distribution Line Losses
- Create Flatter Voltage Profiles
- Reduce Harmonics, Surges, and Transients
- Reduce Tap Changes and Switched Capacitor Actions
- Defer Capital Costs for Capacitor Additions, Re-Conductoring, and Substation Upgrades
- Increase Hosting Capacity of Radial Feeders

PARTNERING FOR INDUSTRY ADVANCEMENT

Solectria was chosen to participate in the U.S. Department of Energy's SunShot program, partnering with EPRI and electric utilities throughout North America to develop, implement, and demonstrate smart-grid ready solutions that capture the full value of distributed PV plants.





SUSTAINABLE SOLUTIONS FOR RELIABLE OPERATIONS

SOLECTRIA'S WORLD-CLASS TEAM PARTNERS WITH CUSTOMERS THROUGHOUT THE LIFECYCLE OF EACH PROJECT, FROM SYSTEM DESIGN CONSULTING, THROUGH INSTALLATION AND COMMISSIONING, TO ONGOING OPERATIONS AND MAINTENANCE.

UTILITY PROJECT & POWER SYSTEMS ENGINEERS

Highly trained Applications and Power Systems Engineers support projects throughout the development process to meet utility requirements. Solectria offers PV system design support, equipment specification services, utility impact study reviews and complex utility interconnection consultation.

GUARANTEED RELIABILITY

Every Solectria inverter solution is backed by standard 5 or 10 year warranty, with optional extensions up to 20 years. Solectria also offers a 99% inverter uptime guarantee.



RAPID RESPONSE

Solectria's extensive customer service organization is known for efficient, rapid response. Services include email and phone-based support from a team of trained customer service representatives, and a nationwide network of technicians located in multiple field offices

for on-site support, preventive maintenance, and repair. Solectria partners with a network of authorized third-party service representatives to provide expanded geographical coverage throughout North America.

"Solectria's inverters are simple to operate, easy to maintain, and the downtime is low compared with other manufacturers. I have installed more than 20MW within the last three years, and Solectria is very customer oriented – the response is really great and very quick."

Hitesh Patel, Quanta Solar



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