

**SunFlow Monitor® ensures that your solar photovoltaic (PV) or wind energy systems perform at contract specifications and kWh production guarantees. With real-time monitoring, real-time diagnostics and live data reporting, SunFlow Monitor® gets the most out of your renewable energy investment.**

SunFlow Monitor® goes a step further by comparing system's performance against expected, taking weather effects and outside temperature conditions into account. SunFlow Monitor® also produces hourly reports for solar renewable energy credits (SRECs).

Meaningful graphics, analysis-based alerts, detailed reporting and complete data export flexibility give you the answers to monitor and manage performance of your renewable energy systems.

### Customers

Whether you're a commercial enterprise, government, utility or an educational institution, we'll help you maximize your investment in renewable energy.

### Representative Examples:

- Leading U.S. Utility Optimizes Performance of 500 kW Solar and 7.5 MW Wind Energy Systems
- U.S. Municipality Monitors 500+ kW Solar Energy Project and Reduces Energy Usage by 50%

## Real Benefits. In Real-Time.

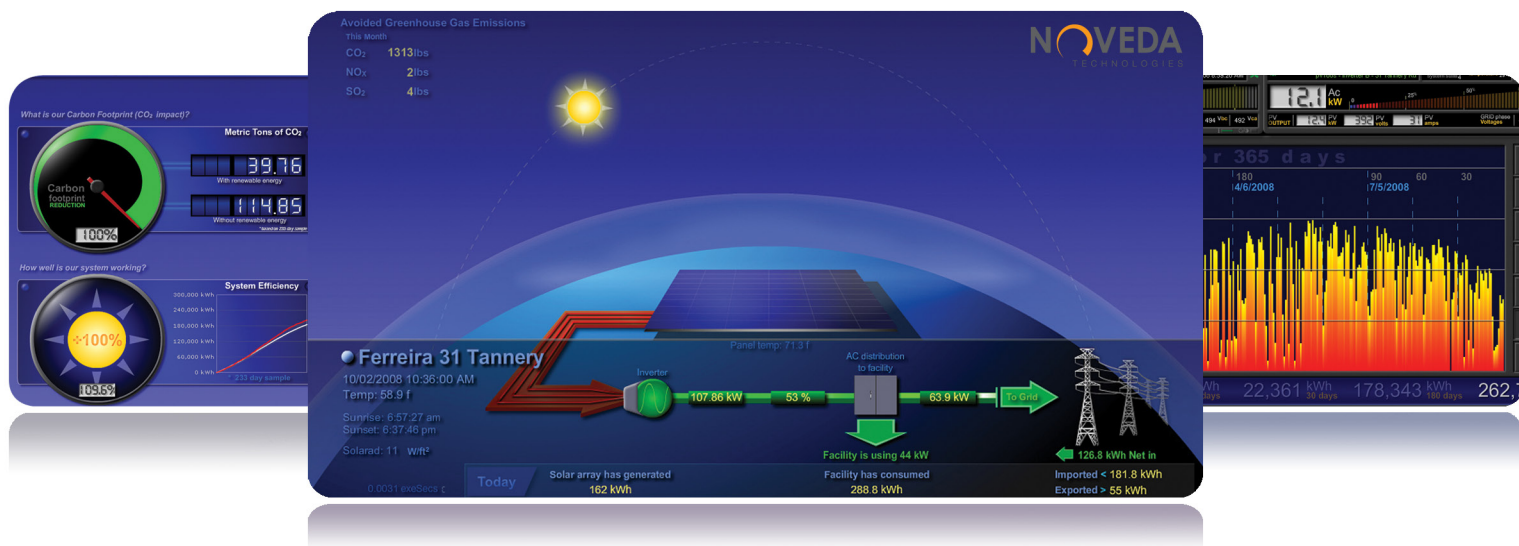
### Key Features:

- Real-time information at 1 min intervals on renewable energy production, facility energy consumption, greenhouse gas generation
- Web based data storage with access to data from any web browser, anywhere, anytime
- Renewable energy credits (RECs) tracking and reporting
- Normalized system performance reports
- Automated billing information for power purchase agreement (PPA) providers
- In-depth data analytics with full export capability
- Data available from each inverter or the total system
- Data reported (& stored) with better than 1% accuracy at 1 min intervals
- String level monitoring
- Remote fault diagnosis and remote reset capabilities, which minimize O&M costs
- Customizable alerts and alarms
- 5 year limited warranty

**Request a Free Demo**

See for yourself how SunFlow Monitor® can help you to monitor and optimize performance of your renewable energy systems. email us today at [sales@noveda.com](mailto:sales@noveda.com)





### Product Contents:

Each SunFlow Monitor® application includes one or more Noveda Technologies Full Weather SmartSource Box (NTSB) and weather sensors depending on the configuration required by your specific application, 5 years of monitoring service and a limited 5 year warranty.

### Noveda Technologies Full Weather SmartSource Box (NTSB)

Electrical Supply:	120 VAC, 60Hz 220 VAC, 60Hz 220 VAC, 50Hz
Internet Connection:	LAN (cat5), Wireless Wi-Fi or Cellular EVDO
Temperature:	-20°C to +70°C
Humidity:	0% - 95%
Enclosure Size:	Composite NEMA 4x Weatherproof 20"H x 16"W x 8"D
Compliance:	UL Listed

### Bi-Directional Revenue Grade Meter

Electrical Supply:	Universal (90-400)V ac @ 50/60 Hz
Measured Values:	Volts, Amps, Watts, VAR, PF, Watt-hr, Frequency
Range of Measure:	Auto-ranging up to 416VAC L-N (721VAC L-L)
Supported Hookups:	3 element wye, 2.5 element wye 2 element delta, 4 wire delta
Accuracy:	IEC 687 (0.2% Accuracy) ANSI C12.20 (0.2% Accuracy)
Current Inputs:	5A nominal, 1 A nominal
Interface:	Modbus RTU, Modbus TCP, Pulse Interface

**Note: Current transformers and voltage transducers must be ordered separately depending on the application.**

### Monitoring Specifications:

Sample Rate:	1 min standard 10 sec in real-time
Data collection:	Generated/Consumed kW/kWh Imported/Exported kW/kWh Solar Radiance per sq. foot Outside Air Temperature Panel Temperature Relative Humidity Wind Speed/Wind Direction
Data Server Storage:	No Limit
Local Data Storage:	Up to 1 Month
Data Connection:	Ethernet 10Base-T, TCP/IP, HTTP, HTTPS, XML, FTP
Meter Connection:	Modbus TCP CAT6 Modbus RTU shielded pair
Access:	Any standard web browser Mobile WAP, Mobile Web
Alerts:	User customizable Device outage Network outage Performance analytics
Client Firewall:	HTTP port 80 (or specified) DHCP or static IP
Analog Inputs:	8 channels
Input Type:	mV, V, mA
Input Range:	+/-150 mV, +/-500mV, +/- 5V, +/-10V, 0-20mA, 4-20 mA