Cloud-connected monitoring and control for renewable power plants

Conext™ Advisor 2

Introducing Conext™ Advisor 2, secure, cloud-connected monitoring and control for PV power plants accessible on computers, mobile devices, even smartphones. Conext Advisor 2 is a web portal with an efficient, task-oriented interface for managing and optimizing the performance of solar power plants.

Conext Advisor 2 is a complete suite of professional tools for professional users:

- **Control room** tools put a plant’s operational details on screen: from the entire PV infrastructure to any individual piece of equipment
- **Data mining tools** are for technical analysts measuring KPI’s to reveal long-term trends, identify the source of inefficiencies, and suggest maintenance or upgrades
- **Cost and revenue tools** for financial users, seeking revenue and ROI analysis, comparison, and making financial forecasts

Protect your investment and increase your ROI with cloud-connected monitoring and control

- Manage operations and PV equipment: full control room capabilities, over a secure Cloud, for centralized operation of any number of PV power plants in real time
- **Track system performance**: for maximum operational efficiency, financial return and effective maintenance and service
- **Forecast critical performance factors**: to predict upcoming solar energy generation
- **Comply with grid standards to maximize revenue**
- **Receive statistics-based guidance**: based on data analytics gathered from global PV installations
- **Produce clear, actionable reports**: on operations, service maintenance, and financial requirements
Why Conext Advisor 2?

Conext Advisor 2 provides cloud-connected monitoring and control for PV power plants; with high-performance tools to protect your investment and increase your ROI with low startup costs.

Customizable:
• Choose the specific options you need; define the system settings and task-oriented screens for each user group, and create your own dashboards.

Scalable
• Supports an unlimited number of power plants from 1 inverter to multiple KW.

Accessible
• Secure, cloud-based access, enables real-time monitoring and control, metrics and forecasting—anywhere, anytime, on computers and mobile devices.

Intelligent
• Data analytics, based on a global database of PV power plants, enable predictive maintenance and guidance. Connectivity to solar-industry weather and irradiance forecasting allows predictive power-generation schedules.

Reliable and secure
• The most stringent cybersecurity standards, plus the reliability of the Industrial Internet of Things provides high performance and a robust, scalable architecture with redundant servers and disaster recovery systems.

Lower startup costs
• Conext Advisor 2 software is software as a service (SaaS), so your cost is based on your usage. This significantly reduces the initial capital expenditure (CAPEX) and shifts the software investment to a limited operating expense (OPEX). You only pay for the features you need and use, and you have the flexibility to add or remove features over system life, as the needs of your business evolves.

Lower service, maintenance and administration costs
• Most services and troubleshooting can be accomplished remotely.
• Server administration and maintenance included in the subscription.
• Solution upgrades are simultaneously available to all connected sites.
Conext Advisor 2: Moving to the Cloud

Smart system on site data feed to cloud-based monitoring & control

Visibility into every power plant detail, courtesy of the Industrial IoT

Conext Advisor 2 leverages the power of the Industrial IoT to provide insight into the status and performance of entire PV installations, from the grid-tie substation to PV inverter stations and every monitored element of the PV array. This enables detailed investigation and the ability to make fast, informed decisions that maximize system performance and overall ROI.

Conext Advisor 2 can monitor both new and existing renewable power plants, and can optionally be interfaced to Schneider Electric’s or your Computerized Maintenance Management System.

The power of the Cloud: connectivity, security and massive data storage

Conext Advisor 2 is cloud-connected, for anywhere-anytime access, with robust security and massive data-storage capacity. The Conext™ Power Cloud stores performance data from every Internet-connected sensor in every one of your power plants, opening up the possibility of previously unheard-of levels of measurement and comparison.

Its data analytics can reveal critical solar-efficiency issues such as panel soiling and aging, and shadows on the PV array. It can detect issues that generate predictive maintenance alerts, so service staff can be dispatched to remedy problems before they cause a failure.
Conext Advisor 2 Offerings

A full suite of cloud-based tools for all your professional users in one portal.

### INCLUDED FEATURES

**STANDARD FEATURES**
- Home
- Operation
- Performance
- My dashboard
- Data export
- Ticketing
- User-defined settings

**OPTIONAL FEATURES PER SITE**
- 7 Day production forecast
- 6 Hour production forecast
- Report templates
- KPI customization
- Interface with Power Plant Controller (Universal, Evolution)
- Monitoring of diverse equipment down to string combiners

**OPTIONAL FEATURES PER USER**
- Troubleshooting
- Manual remote control
- Advanced performance
- Energy Not Supplied Arbitration
- Advanced Financial Data

*Not available in Conext Advisor 2 version 1. ** Hardware dependent.

### Standard Features per site: these features are included with all contracts and for all PV power plant users.

<table>
<thead>
<tr>
<th>HOME</th>
<th>OPERATION</th>
<th>PERFORMANCE</th>
<th>MY DASHBOARD</th>
<th>DATA EXPORT</th>
<th>USER-DEFINED SETTINGS</th>
<th>TICKETING*</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Geolocalization of all your PV power plant sites</td>
<td>• Site overview – PR, irradiance, production and alarms at a glance</td>
<td>• Site overview</td>
<td>• Use of predefined widget</td>
<td>• Automatic data export and on demand data export</td>
<td>• Site configuration and setting</td>
<td>• Ticketing activities management</td>
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<td></td>
<td>• Electrical view - display electrical device status using a Single Line Diagram</td>
<td>• Device analysis in-depth analysis from the grid to the array boxes</td>
<td>• Create your own widget</td>
<td>• User rights management</td>
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<td>• Ticketing follow up activities</td>
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<td>• Alarms and notifications</td>
<td>• Multi-sites performance comparison</td>
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<td>• Statistic on the ticketing activities</td>
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</tbody>
</table>

### Optional Features per site: add-on as many optional features to each PV power plant site for all users.

<table>
<thead>
<tr>
<th>7 DAY PRODUCTION FORECAST</th>
<th>6 HOUR PRODUCTION FORECAST</th>
<th>REPORT TEMPLATES*</th>
<th>KPI CUSTOMIZATION</th>
<th>INTERFACE WITH POWER PLANT CONTROLLER**</th>
<th>MONITORING OF DIVERSE EQUIPMENT**</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Production forecast up to 7 days with a 1 hour step at D+1</td>
<td>• Production forecast 7D+6 hours ahead with 15 min step</td>
<td>• Build your own custom report template</td>
<td>• Create your own PR or availability level calculation</td>
<td>• Utility Interface, PPC Universal or PPC Evolution</td>
<td>• From Inverter to Array Box</td>
</tr>
</tbody>
</table>

### Optional Features per user: add-on features per user profiles.

<table>
<thead>
<tr>
<th>TROUBLESHOOTING*</th>
<th>MANUAL REMOTE CONTROL*</th>
<th>ADVANCE PERFORMANCE</th>
<th>ENS ARBITRATION</th>
<th>ADVANCE FINANCIAL DATA*</th>
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</thead>
<tbody>
<tr>
<td>DESCRIPTION</td>
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<td>• Data 10 sec</td>
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<td>• Oscillo-perturbography (OPG)</td>
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<tr>
<td>ELIGIBLE USER PROFILES</td>
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<td>• Operator</td>
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<td>• Service team</td>
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</table>

|                        | | | • Technical analyst | • Financial analyst |
|                        | | | | |

|                        | | | • Financial KPI | |

|                        | | | • Financial Data | |
Part of the Power EcoSystem™

Conext Advisor 2 is one component of the Power Ecosystem, a suite of applications for PV power plant control, monitoring and servicing that leverages a shared database and communicates with operations staff, service staff, owners and Schneider Electric, to secure the best return on investment from your global PV assets for one or multiple PV installations.

Conext™ SmartGen Inverter

- The Conext™ SmartGen inverter is an intelligent, cloud-connected inverter for utility-scale power plants. With built-in sensors and connectivity to the entire plant, it provides more efficient power generation, with lower short-term and long-term operating costs, and a far longer service life.

Power Plant Controller

- Ensures that requests and compliance requirements from the power utility are met. In hybrid power networks, the Power Plant Controller administers the generating resources to maximize the economical/profitable power source while ensuring load stability.

Conext Power Cloud

- Cloud-based data mining and data collection for SmartGen Power Systems, where data from globally-deployed systems is analyzed for predictive maintenance, and to provide enhanced remote service and technical support.

Conext™ Viewer

- Configuration and service software for Conext SmartGen inverters and inverter stations, including diagnostics and troubleshooting tools. Available locally or remotely, on computers and mobile devices.

Schneider Electric Service and Support

Committed to maintaining the value of your solar investment

Protect your solar investment and maintain your system’s efficiency and profitability with a Schneider Electric service contract. Wherever your system is installed, there is a Schneider Electric support team trained in your system’s technology, and your local power requirements and regulations. We maintain parts depots in every major region. Schneider Electric Service currently supports over 4,500 commercial clients and over 300,000 solar power installations around the world.

Why choose Schneider Electric’s service contracts?

- Global service capabilities
- Global field services
- On-demand services, including commissioning and training
- Remote supervision and control