

# Gantner.webportal

Providing Optimized PV Production & Increased Asset Value



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Solution for PV Performance monitoring, Data acquisition, Visualization, Analysis and Reporting

## Market requirements:

Effective PV Monitoring requires constant, solid and traceable PV Plant monitoring data in order to determine actual performance and fulfil owner/investor expectations.

## Main Benefits with Gantner.webportal:

- Reduced risk for owner/investor and operator
- Comprehensive Financial KPIs for Investors
- One unified platform for effective and automated PV plant management
- Vendor-independent PV Plant monitoring
- Provides baseline for energy prediction (day ahead), energy trading, etc.
- Fully compliant w/ international standards like IEC 61724 Ed.2
- Optimized PV production leads to increased asset value

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## Utility Scale PV Monitoring



### Data consistency

- Perform real-time sanity checks for physical meaningful values
- Uptime tracking / Availability audit
- Provide overall Sensor review for measurement validity
- Monitor Irradiation sensor drift
- All incoming data is tested for measurement-, data consistency- or data transfer issues

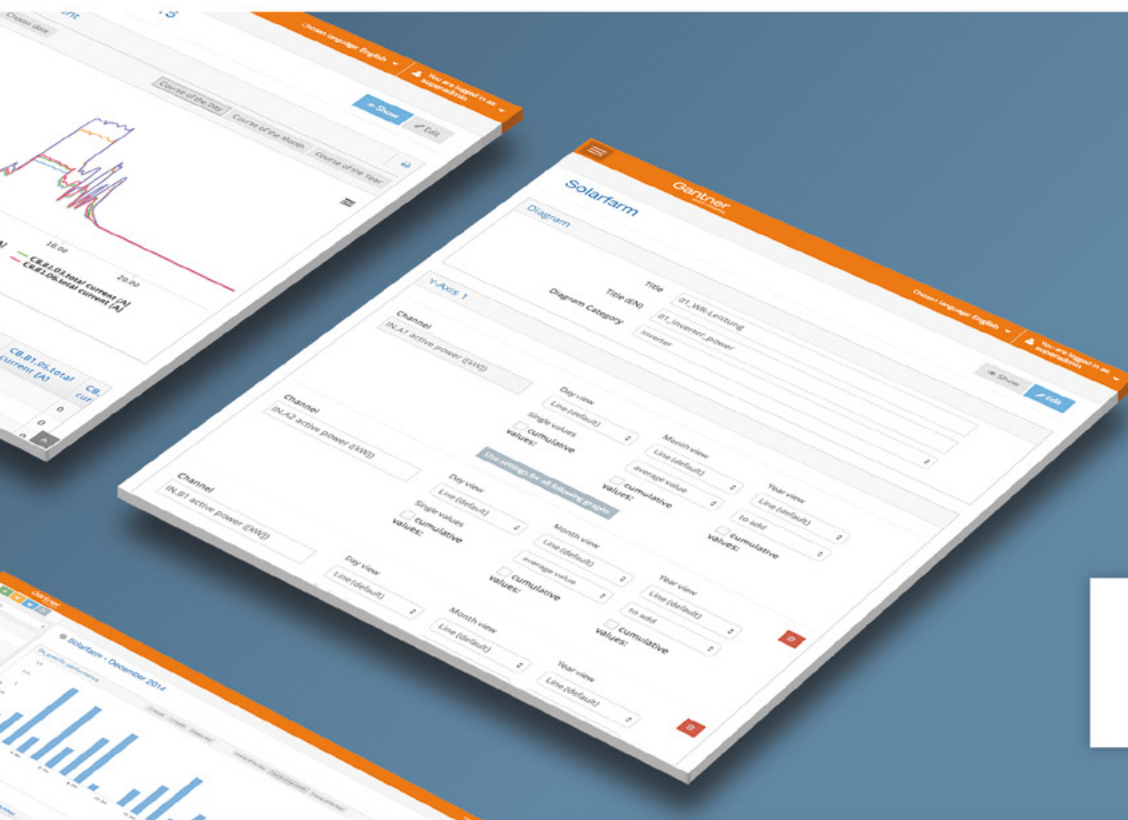
### Filters

- New Filter Parameters: Sun position, AOI, Shading status, Clearness Index (kTh), Module Temperature (Irradiation weighted)
- O&M activities as filter option
- Include required filters from IEC 61724 Ed.2 "Photovoltaic System Performance Monitoring Guidelines for Measurement, Data Exchange and Analysis" (upcoming standard)
- Compliant w/ upcoming IEC O&M standard

### Parameters (selection)

- Normalized parameters for direct comparison
- Weather types to compare similar weather, as energy yield is influenced by several parameters at different weather
- Real Nominal Power "Real Pnom" (extrapolation to STC, PTC)

# Webportal 3.x Technical Features (selection)



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## Analysis Functions

- Separation of main losses : Irradiation, Temperature, Soiling/Dust, AOI
- Behavior vs. Time, Temperature, Irradiation, Season
- Weather types: compare similar weather types, as energy yield is influenced by several parameters
- Long term degradation
- Extrapolation to STC, NOCT conditions
- Empirical data fits: compare trend with outliers
- Performance Guarantees: target vs. actual
- String level visualization (voltage & current)

## Reporting / O&M functions (supportive)

- Create your own diagrams, alerts and automated reports
- Reporting: Standard Energy yield parameters acc. to IEC 61724 Ed.1 (daily, monthly, yearly), plant availability
- Ticket system
- O&M logging
- Document handling, tractability, sensor calibration, cleaning
- Implement preventive maintenance strategies

## Data handling

- Real time analysis platform
- Database cluster with highest availability (Fail over)
- Automated, decentralized backup
- Hosted according to EU regulations
- Accessible from mobile devices with HTML5, W3C

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For your personal **Gantner.webportal** demonstration please contact: [office@gantner-environment.com](mailto:office@gantner-environment.com)