

PV Insights™

Optimizing Plant Performance

Business Benefits

- ✓ *Single View of Operations* - Aggregate Data from sources
- ✓ *Generate 360 Insights* - Extract value by identifying asset losses & performance degradations
- ✓ *Minimize NPT* - Streamline operational processes to increase availability and reduce maintenance costs
- ✓ *Maximize Profitability* - Real-time sharing insights with stakeholders & third-party service providers

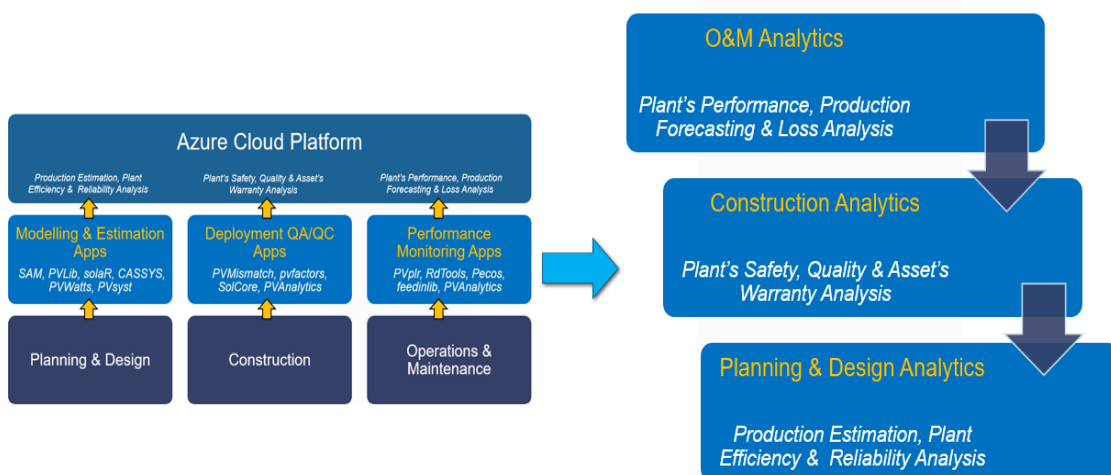
Key Features

- ✓ *Performance* - Inverter Ranking, Inverter Profiling, Anomaly Insights
- ✓ *Forecasting* - Daily Yield, DC Power, Weather impact on plant output, What-If Models
- ✓ *Losses* – DC to AC Power Loss, Clipping, Outlier Models on Power

PV Insights™ is a cloud-based, plug & play solar PV plant analytics solution that drives plant performance and targets to reduce O&M costs by using prediction & anomaly detection through its AI and ML models. PV Insights™ helps to drive digital transformation in the O&M phase for solar PV plants. The SaaS platform derives value by identifying asset losses & performance degradations using customized analytics workbench. Key outcomes from this platform are to -

- Monitor and predict performance insights from plant assets
- Forecast daily yield, total yield, weather & power
- Estimate annual energy production (AEP) from long-term gross energy & expected future losses

PV Insights™ API based modules support in continuous performance monitoring, trend analysis, forecasting, and predictive analytics to ensure maximum plant performance and reduce plant downtime. The platform has the capability to monitor patterns and trends in data to better predict and potentially optimize future maintenance and performance activities. O&M managers can augment their solar PV plant's maintenance in the areas of preventative, corrective, and condition-based maintenance.



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Platform Availability

- ✓ Access to Daily Reports, O&M Insights, and Outlier Reports
- ✓ Run App as a Service from anywhere and access to view the dashboards and reports

PV Insights™ is part of a product portfolio of Renewable Insights

Sales & Marketing

US – Houston

India – Bangalore

Services & Solutions Delivery

US — Houston

India – Bangalore

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Performance Analysis

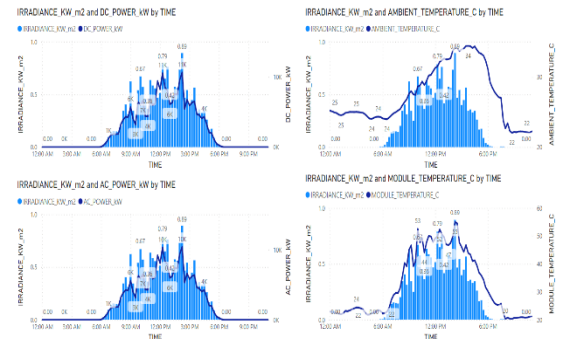
PV Insights™ helps to monitor and predict performance insights from plant assets (e.g., Inverters, Combiner Boxes, MFM/Power Meters)

- ✓ Real-time dashboard shows performance predictions and allows confidence bound on the prediction
- ✓ Performance analytics reports on known threshold values for condition indicators that detects failure histories of similar assets
- ✓ Supports performance rankings, probability distributions and anomaly insights

Forecasting Models

PV Insights™ helps to forecast daily yield, total yield, and power, leveraging AI/ML models

- ✓ Supports models such as physical, statistical, machine learning, & deep learning
- ✓ PV power and yield forecasts based on what-if models running on weather parameters



What-If Scenarios

PV Insights™ helps to forecast AEP from long-term gross energy and expected future losses

- ✓ Processing of the revenue meter energy, loss estimates, & long-term resource data
- ✓ Supports real-time KPI dashboards and energy production related visualizations

