Renewable Insights

Renewable Insights
Building Digital Renewable Enterprises

Partnership Benefits

☑ *Maximize Financial Return from Plant Assets* - Gain insights into the behavior of plant assets, aiming to maximize the financial return by improving the technical performance.

☑ *SaaS Products across Asset Lifecycle* - Leveraging industry expertise across solar, wind and hydro projects, the team has developed SaaS platforms for monitoring, reporting and analytics.

☑ *Industry Best Practices*- Get O&M best practices, industry utilities, and process templates in form of technology components from our association with industry partners.

☑ *OPEX Mode of Technology Transformation* - Partner with us as your extended technical R&D and product development center to develop your renewables portfolio.

Renewable Insights Pvt. Ltd.

India | US

At Renewable Insights, we develop SaaS products and solutions for renewable enterprises in solar, wind, hydro and hydrogen. Our products such as PV Insights™, Turbo Insights™, Hydro Insights™ and H2 Insights™ provide operators and EPC providers with the insights to make operational decisions with confidence.
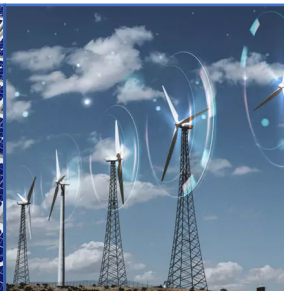
Plant operators and managers can leverage our products to gather insights on operational and financial performance of their remote sites. Our custom data models, cloud-based data warehouse and plant level data lake that connect all relevant information for individual sites helps plant operators to make decisions in real-time. Our API based products support in continuous performance monitoring, trend analysis, forecasting, and predictive analytics of renewable plants to ensure maximum performance and reduce downtime. Key features of our deep insights-based SaaS platforms across solar, wind, hydropower and hydrogen plants are to -

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

Solar	Wind	Hydropower	Hydrogen
• Monitor and predict performance insights from plant assets (e.g., Inverters, Combiner Boxes, MFM/Power Meters) • Forecast daily yield, total yield, and power leveraging AI/ML models • Forecast annual energy production from long-term gross energy and expected future losses	• Predict failures i.e., Remaining Useful Life (RUL) in wind turbines • Track the performance of turbines by comparing current production with expected values based on OEM provided or historically calculated benchmarks • Estimate long-term AEP from long-term gross energy and expected future losses	• Estimate power and energy in hydro turbines • Track the performance of hydro turbines by using operational scenarios using turbine power and speed with water flow rates • Design digital twins of the hydro turbines with what-if and prediction models	• Energy Performance Analysis with KPI Dashboards for remote and real-time monitoring of operations and asset health. • Production Cost Analysis using Forecast Models to maximize yields and prevent energy losses • Production Process Analysis with What-If Simulations

Renewable Insights drives digital transformation for renewable energy firms for connected enterprise in the areas of plant, workforce, operations, assets, and maintenance through IoT, Analytics and Digital Twins

![Renewable Insights logo] **Renewable Insights**

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SaaS Platform Configurations

☑ 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

Sales & Marketing

US – Houston

India – Bangalore

Solutions Delivery

US – Houston

India – Bangalore

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Renewable Insights Pvt Ltd

India | US

Plant Operational Monitoring

☑ We design solution accelerators that are aligned to your renewable enterprise in the areas of connected operations, performance analytics and predictive business outcomes.

☑ Develop ethical, secured, and responsive design led frameworks in IoT, SCADA Data Analytics and Digital Twins.

☑ Demonstrate and help executives in faster adoption of advanced technologies leveraging low code/no code DIY platforms.

Plant Operational Excellence

☑ Measure plant performance through KPIs defined for safety, operational excellence, risk, governance, and compliance.

☑ We design predictive risk models and interactive BI dashboards for non-compliance and outliers related to plant operations.

☑ Provide recommendations on operational excellence from plant and equipment level assessment.

Plant Operational Optimization

☑ We build solutions to optimize maintenance, improve quality, warranty support, and predictive maintenance.

☑ Lower TCO and accelerate adoption by adopting cloud, distributed agile, open source, RAD and hybrid engagement models.

☑ Leverage industry aligned accelerators for faster go-live and productization.