



## A platform for monitoring and analytics of solar power plant production and distribution

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Developing a data analytics platform using data from SCADA and Weather systems played a key role in real-time monitoring & enabled intelligent operational decisions thereby improving generation. System end user benefiter's are generators, utilities and distributors.

### ***Your Challenges***

Solar plants are inherently expensive to operate. Keeping track of a diverse portfolio of projects in remote locations is a complex task.

Saviant uses the vast quantities of data the assets produce to offer deep insights. Our solutions encompass data ingestion, transformations, dashboarding and predictive analytics to improve generation, operational and maintenance (O&M) efficiencies and effective forecasting.

### ***Our Solution***

We created a data analytics platform for Live daily monitoring. Solution implemented encompassed integration of data from multiple sources, planned vs Actuals, Revenue Gain Vs Loss, specific yield comparison, root cause analysis.

### ***KPIs covered***

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| <ul style="list-style-type: none"><li>• Generated Energy Difference</li><li>• Exported Reactive Energy</li><li>• Period Performance, PP %</li><li>• Performance Ratio, PR %</li><li>• Availability Ratio, AR %</li></ul> | <ul style="list-style-type: none"><li>• Act v/s Exp Insolation</li><li>• Act v/s Exp Irradiance</li><li>• Ambient/Module temp</li><li>• Revenue Analysis</li><li>• Power Factor Monitoring</li></ul> |
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## Forecasting:

Saviant's Advanced Data Analytics Solution extracts, transforms and loads the SCADA data, and Weather data into a new system to make it ready for the Azure Machine Learning service. Saviant forecasting models help grid operators and generators forecast with accuracy and retain grid stability & profitability.

## Executive Dashboards:

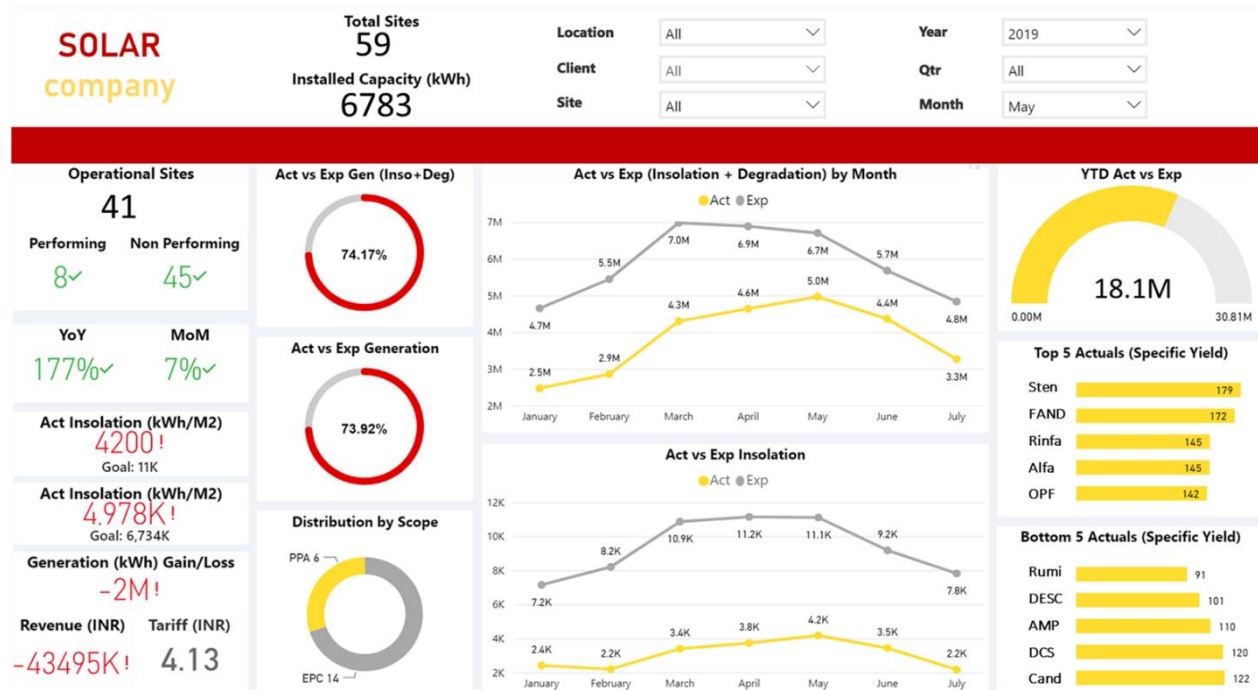


Figure – Combining SCADA data and Weather information (NWP -Numerical Weather Prediction) for Power Plant Analytics

## Business Benefits:

- Intelligent operational decisions
- Maximizing revenue and generation
- Reduce the impact of power output uncertainty on the grid
- Improve penetration of solar power in the power grids

To Learn More Contact:

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### Saviant Consulting

Saviant provides intelligent solutions for Solar and Renewable companies. We help Small-Medium Enterprises grow faster by using Cloud, Mobility and Analytics as Business Accelerators. Our team creates Systems of Engagement, integrating Enterprise Systems with Devices, Sensors, Cloud services, Mobile and Data.

Global Presence: US, UK, CANADA, MIDDLE EAST, AUS, IND

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