

Use Case – Solar Plant SCADA – Forecast Power Production

- **Production Optimization:** Advanced weather data integration and ML algorithms help forecast power generation days or weeks in advance, allowing better grid integration and energy trading decisions.
Real-time performance monitoring across thousands of panels helps identify underperforming areas quickly for maintenance.
- **Cost Reduction:** Predictive maintenance identifies potential equipment failures before they occur, reducing unexpected downtime and repair costs.
More accurate production forecasts help optimize energy storage and grid export timing.
- **Grid Integration:** Better production forecasts and dynamic response capabilities help solar plants adjust output based on grid demands.
Improved scheduling of maintenance during lower production periods
- **Operations & Asset Management:** Detailed performance tracking of individual components helps optimize lifecycle management.
Historical data analysis reveals long-term degradation patterns.
Data-driven insights help optimize panel cleaning and maintenance schedules.

