Improve Plant Yield 2 – 4% + O&M Efficiency 15%

Built into an Automated, RealTime Monitoring Platform

You need to monitor your fast-growing portfolio in 1-Place, with 1-Source of Truth.

Quadrical provides value by…

Improving the performance + O&M efficiency of every Solar, Storage & Wind Asset built right into a full **Asset Management & Performance Monitoring Platform.**

Centralize – Clean, organize, systematize, & train data so it is useful.

Monitor – Anomalies, outages 24/7. Prescriptive + preventative + predictive maintenance.

Analytics – Digital Twin AI + Statistics + Rules Engine for predictive analytics. Add rules with "No-Code." Portfolio + Site level views. Automated performance analytics, verifiable with detailed dashboards for root cause analysis.

Ticket – Automated opening & closing, Shareable with vendor O&M teams.

Report – Fully automated, so assets almost report their own performance.

Actionable intelligence built into a platform for Site Teams, Operations, Performance Teams, Outsourced O&M, C-Level Teams, Investors.

Run your business operations on autopilot, so you can focus on all the new plants you're building. *Integrate portfolio on platform in days and weeks, not months & years.*

Storage

Digital Twin based Advanced Battery Analytics Platform. True insight, which goes beyond BMS Alarms, so you get the most out of your storage asset

Cloud Storage Platform with root-cause analysis and revenue-prioritized tickets for:
- Outages,
- Degradation,
- Anomalies, predictive maintenance
- Analytics for weak cell/module replacements

Transparency for relevant KPI'S
- Yield / Availability / Capacity
- Monitoring + Daily Generation Reports
- Fault + Liquidated Damage Analysis

Track real State of Charge (SoC) with an EMS so capacity utilization is maximized. Extensible Platform with No-Code Rules for expansion, Warranty compliance, OEM Liquidated Damages (LD's), Analytics.

Options:

Snap-On Advanced Analytics

Work with your basic CMMS (Monitoring) to give you advanced Actionable Intelligence.

Remote Operations (ROC)

Forecasting

10X Return on Investment

End to End Generation and Transmission Loss

TOTAL LOSS	DC LOSS	AC LOSS	INVERTER LOSS
3.65% 0.00%	1.26% 0.00%	0.00% 0.00%	2.39% 0.00%

Sharat Singh (Engineering, Data) & Dr. Hugh Hind (AI) bring learnings from long technology careers building enterprise grade, trusted, secure products. Combining deep math + data + prediction & anomaly detection AI helped us build the first Digital Twins for the solar industry.

" Quadrical Ai's Digital Twin approach was instrumental in setting realistic expectations and then pinpointing areas of under performance that focused our teams' efforts. "
James Abraham
Founder and Director, SolarArise

" When Canadian Solar's e-Storage team they efficiently on boarded a large number of projects and provided actionable insights on a daily basis. Their expertise in developing a sophisticated data analytics platform has empowered us to effectively optimize the performance of our utility-scale BESS projects. Quadrical's professionalism, attention to detail, and transparent communication made them invaluable. "
Frederic Rivollier
Managing Director, Engineering & Energy Solutions

Give us 2 Hours of time.

Plant Audit

Transparency + Actionable Results. No risk, no disturbance to your current systems.

Solar
In 48 Hours, you get:
Performance check showing historical + current losses in buckets by DC, Inverter & AC
- Issue identification. Trend Analysis
- Revenue Prioritized Actionables

Storage
In 10 Days, you get:
- Current Availability + Capacity Report
- Warranty + Safety Compliance Report
- Next Day Availability + Capacity Forecast to inform & optimize your dispatch strategy
- Revenue Prioritized Tickets to guide
  -Battery Module Replacement & maintenance
  -Liquidated Damages (LD's)

CanadianSolar

Top-3 Global Asset Owner

SolarArise

M+ SOLAR AMPLUS SOLAR

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Deployed on 3064 MW Solar + 667 MW / 2433 MWh Storage + 200 MW Wind