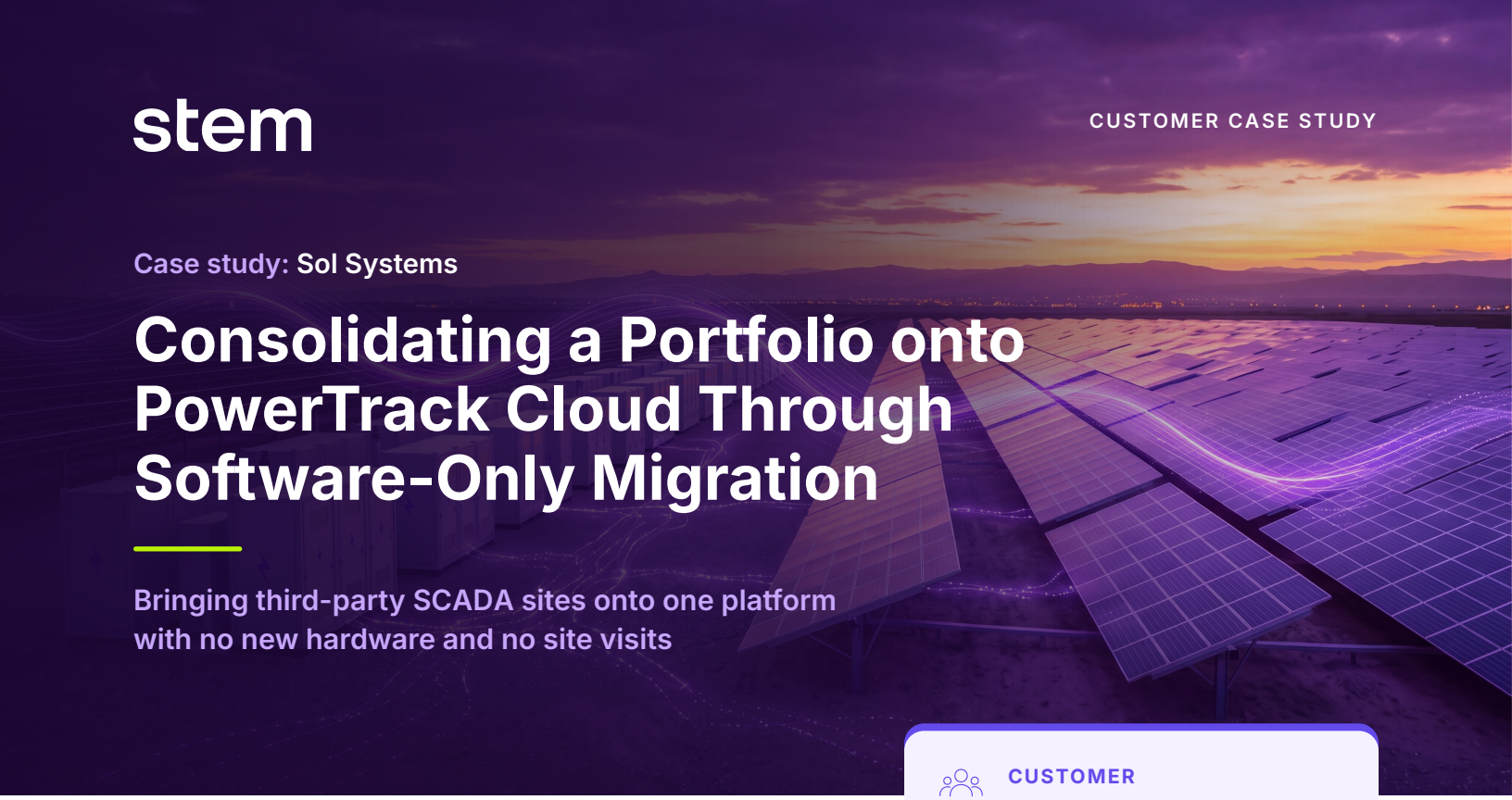
stem

CUSTOMER CASE STUDY



Case study: Sol Systems

Consolidating a Portfolio onto PowerTrack Cloud Through Software-Only Migration

Bringing third-party SCADA sites onto one platform with no new hardware and no site visits

The Challenge: One Portfolio, Too Many Platforms

Sol Systems' portfolio had grown to include PV sites running on third-party SCADA, sitting outside the PowerTrack Cloud platform the rest of the fleet was managed on. That split meant no single view of portfolio performance, reports stitched together by hand, and KPIs that didn't reconcile site to site. Sol Systems needed those sites brought onto PowerTrack Cloud without disturbing monitoring systems already installed and paid for, without capital spend on new field hardware, and without waiting months for a crew to be scheduled at each site.

The Solution: One Platform, No New Hardware

Stem migrated the portfolio into PowerTrack Cloud Software using a software-only ingest, reading data directly from existing field devices — inverters, meters, weather stations, and trackers — rather than scraping the incumbent SCADA portal. No monitoring hardware was purchased or installed, existing warranties were untouched, and the legacy system ran in parallel until cutover, so Sol Systems never had a monitoring gap caused by the transition. With no hardware in the critical path, each migration was completed within two weeks of full data availability.

CUSTOMER
Sol Systems LLC, a clean energy asset developer, owner, and operator

SCOPE
More than 600 MW in migration over 3 years, with 1 GW total planned by end of 2026

CHALLENGE
PV sites monitored on third party SCADA and sitting outside of the PowerTrack Cloud platform, leaving no single view of portfolio performance

NEW HARDWARE
No equipment purchased, no installation, no truck rolls, and no impact to existing warranties

TIME TO DATA
Live in PowerTrack Cloud within 2 weeks of full data availability

INCLUDED
PowerTrack Cloud's Advanced Modeling configured by Stem; a dedicated Project Manager and Application Engineer assigned to each site

Results

- Over 600 MW of PV consolidated into PowerTrack Cloud over three years
- No new monitoring hardware, installation labor, or site mobilization cost.
- No impact to existing equipment, monitoring systems, or warranties.
- Every migration live on PowerTrack Cloud within two weeks of full data availability.
- Advanced Modeling configured and delivered turnkey.
- One platform, one interface, and one consistent set of KPIs across the managed fleet, regardless of which SCADA system was originally deployed at each site.

> **"PowerTrack Cloud has made it easier for our team to bring data together across projects and systems, reducing the complexity of managing a growing portfolio and giving us more consistent visibility into project performance."**
>
> **Adam Polis**, Director of Performance Engineering, Sol Systems LLC

How Stem Delivered

Reading data straight from the field devices

Stem's Application Engineering team installed PowerTrack SCADA on existing hardware, established communications to the field devices at each site, and ingested data at the device level rather than as a rolled up plant summary. That granularity is what makes real diagnostics, loss accounting, and equipment level analytics possible downstream.

Drivers built by hand to get the data right the first time

Rather than relying on generic templates, Stem's engineers manually created the device drivers for this portfolio. Register maps, scaling, and point naming were verified against the equipment documentation up front, so data landed correctly on the first try. That eliminated the rounds of data cleanup that often follow commissioning, and it shortened the time to usable data.

Field and network support for the installer

Where site networks needed attention, Stem worked directly with the installer to diagnose network issues and verify proper setup. That included merging the new data path into the existing site network so the legacy system and the new PowerTrack Cloud service could operate independently, with no interruption to the customer's existing data integration. Where that work was needed it added days to the schedule, and it was the biggest variable in how quickly a site could go live.

Advanced Modeling configured by Stem, not by the customer

Performance modeling is the difference between a monitoring portal and an analytics platform, and it's normally the customer's homework. Stem configured Advanced Modeling in PowerTrack Cloud for the portfolio, so Sol Systems gained expected versus actual analytics, weather adjusted performance measurement, and loss attribution without spending internal engineering hours building or tuning the model themselves.

A dedicated Project Manager and Application Engineer on every site

Each site was assigned a dedicated Project Manager and a dedicated Application Engineer who carried that site from kickoff through validation. Sol Systems always knew exactly who owned the work and had a single point of contact for every question. That same Application Engineer also worked directly with the Sol Systems team to build a generic roadmap for standardizing data across the portfolio, mapping the data identically from site to site so KPI and performance analysis is faster and more consistent. What the team learned on one site fed the next one through that common delivery process.

Key Takeaways:
Applying Sol Systems' Approach to Your Own Portfolio

Is a software-only migration available to your portfolio?

IF YOUR FLEET SPANS MULTIPLE MONITORING PLATFORMS because each site arrived with whatever the developer or EPC installed... Fragmentation accumulates cost over time — reports stitched together by hand, KPIs that don't reconcile, and a different vendor to chase every time a site goes quiet. A single platform with a consistent data model eliminates that translation layer entirely.

IF YOUR SITES ALREADY HAVE MONITORING HARDWARE AND WARRANTIES IN PLACE THAT YOU DON'T WANT TO DISTURB... Software-only ingest reads directly from existing field devices or data can be read from an aggregator, with no equipment to buy and no risk to coverage already in service. The legacy system can run in parallel until you're ready to cut over, so there's no forced downtime or hard deadline.

IF PERFORMANCE MODELING AND LOSS ATTRIBUTION HAVE BEEN MORE HOMEWORK THAN YOU HAVE ENGINEERING HOURS FOR... Advanced Modeling configured as part of onboarding delivers expected-vs-actual analytics, weather-adjusted performance, and loss attribution from day one — without your team building or tuning the model.

IF YOUR GROWTH PLAN DEPENDS ON ADDING SITES WITHOUT ADDING OPERATIONAL HEADCOUNT... Because new sites can often be added by software alone, the platform scales with the portfolio instead of gating growth behind hardware procurement and installation schedules.

If your fleet is spread across monitoring platforms, a software only migration may be available to you. In many cases Stem can read directly from your existing field devices, leave your installed hardware and warranties untouched, run in parallel with your current system until you're ready, and hand back a fully modeled site in PowerTrack Cloud. Contact your Stem account team to scope your portfolio.

About Stem

Stem is a global leader in energy intelligence and the operating system for clean energy: where assets connect, sites are optimized, and value is captured. Powered by decades of operational experience and purpose-built AI, our PowerTrack™ platform is the layer that sits between raw data and confident action, making every decision-maker smarter, every asset more productive, and every transition more certain.

From asset monitoring to portfolio optimization and control, PowerTrack delivers everything energy professionals need in one place. With projects managed across 55 countries, we have spent nearly 20 years empowering asset owners, operators, and developers to take command of what comes next, with the certainty to act, the trust to commit, and the intelligence to lead.

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