



ARSOS

# Automation Suite

ISP Use Case



# Operational Efficiency and Remote Control with ARSOS Automation Suite

## Context: Managing Diverse OEMs and Technologies

This case reflects a typical situation among independent service providers (ISPs) managing multi-brand renewable fleets. Through this representative example, we show how ARSOS can transform maintenance efficiency, automate repetitive tasks, and unify operational control.

WindOps Iberia (WOI) is a global Independent Service Provider (ISP) specializing in the operation and maintenance of renewable energy assets across four continents. The company manages more than 3,200 wind turbines from multiple OEMs representing over 3 GW of capacity under active service contracts. All assets are monitored and controlled through a 24/7 global operations center.

As its customer base expanded, operational challenges multiplied:

- Different operation protocols for each OEM and turbine model.
- Manual fault handling and reset procedures consuming operator time.
- Limited real-time visibility across multiple assets and geographies.
- Slow incident escalation to field technicians.

WOI needed a solution that could automate repetitive tasks, unify monitoring, and minimize downtime, without losing flexibility or scalability as an independent operator.

# Operational Challenge: Scaling Global Operations Across Systems and OEMs

Each wind farm operated on its own SCADA system, with unique alarm logic and OEM-specific reset procedures.

Operators had to manually review each alarm, interpret the event, and decide whether to reset the turbine or escalate it to field maintenance.

The result was a control center overloaded by repetitive decision-making:

- 450 alarms per day across all sites
- Average 30 minutes per reset, including analysis and execution.
- Inconsistent documentation and follow-up tracking.
- Delays in escalation and cross-team communication.

Even with a highly skilled workforce, WOI's growth was outpacing its ability to maintain control.

Scaling globally meant automating intelligently — standardizing responses while retaining flexibility for each asset and technology.

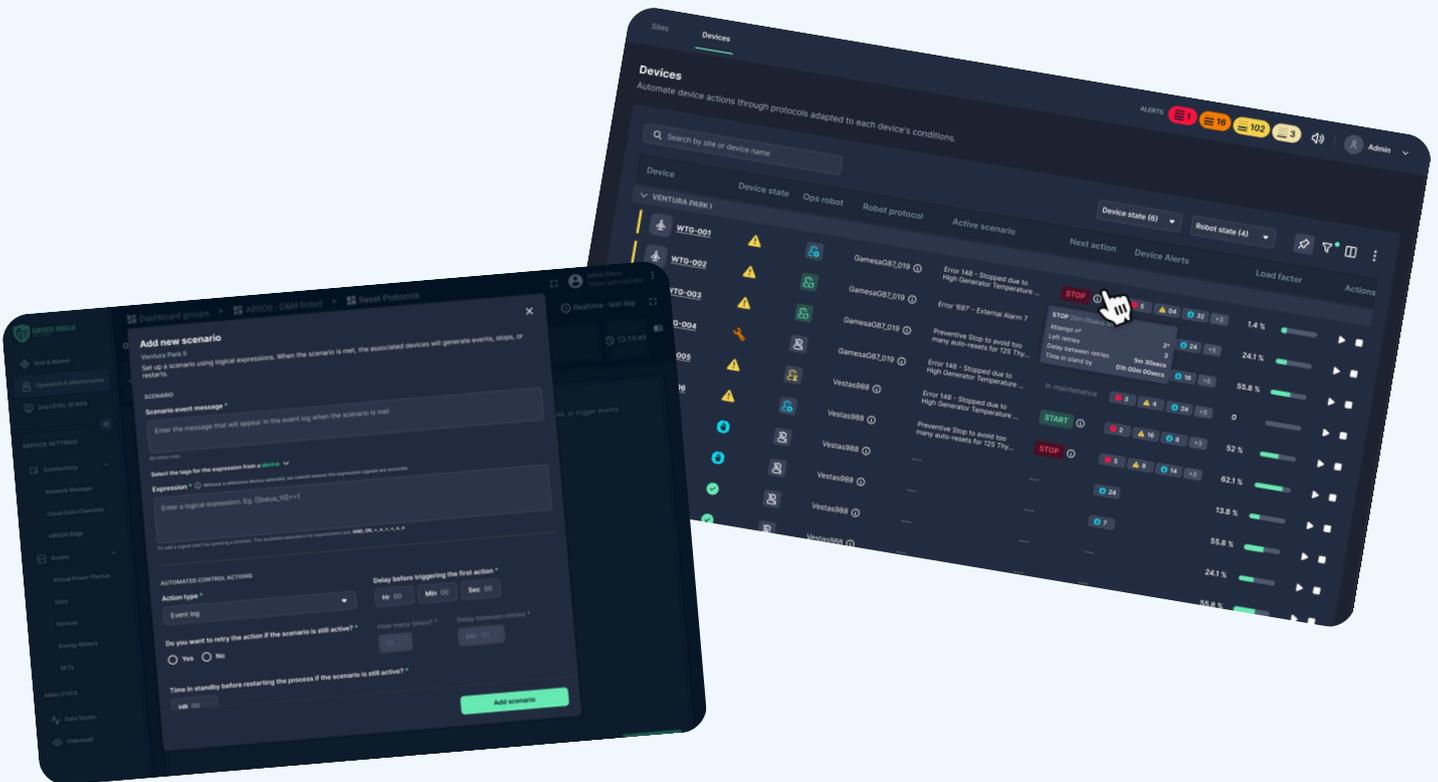
## The Solution: Global Multi-OEM Automation with ARSOS Automation Suite

WOI implemented ARSOS Automation Suite as its unified platform for operations — connecting all OEMs, technologies, and regions into a single intelligent control layer.

## Automated Fault Detection, Resets and Escalations

- ARSOS enables full automation of wind turbine fault handling, eliminating manual intervention and significantly reducing downtime.
- It continuously monitors assets across all sites, detecting faults and executing preconfigured operation protocols in real time.
  - Configure alarm books and operation protocols with defined actions and wait times.
  - Assign tailored protocols to each turbine for condition-based operation.
  - ARSOS analyzes context and acts automatically – for example, performing a turbine reset – reducing downtime from 30 minutes to under five.
  - In complex or critical cases, it notifies operators with complete event details.
  - Each turbine follows its own operational logic, based on age, maintenance history, or technology – enabling true 1:1 asset care at scale.
- If a reset fails or a work order exists in the CMMS, ARSOS automatically switches to manual mode, escalates the incident, and notifies the appropriate technician – no operator action needed.
- ARSOS provides KPIs and reports to optimize and refine protocols, driving greater operational efficiency.

**Impact:** Up to 80% fewer manual actions in the control room.



## Real-Time Global Monitoring and Troubleshooting

- A unified ARSOS dashboard consolidates alarms and operational data from all sites and OEMs.
- Event timelines enable in-depth incident analysis, enhance operational protocols, and track the operations robot's performance through two main features: an interactive timeline that synchronizes device states, robot actions, notifications, and other concurrent events; and a graphical signal view that overlays device signals within the same time range to reveal causal relationships between behaviors and events.



## **Resilient On-Site Automation & Control**

ARSOS can be connected to on-site systems—making automation and control resilient, even when connectivity fails.

It is generally installed on edge and acts as a local orchestrator across technologies, connecting PPCs and enabling seamless multi-technology coordination at the site level. It runs lightweight SCADA visualizations locally and executes automation protocols in real-time, reducing dependence on cloud or OEM SCADA systems. This allows to:

- Enable fault resets even under cloud or VPN loss.
- Store and forward telemetry to maintain data continuity during communication outages.

## **Scalable Integration**

- The self-onboarding workflow allows new plants to be added at the client's own pace.
- Multi-brand and multi-technology compatibility ensure uniform monitoring across all OEMs and asset types.

## **Environmental Compliance**

- ARSOS integrates environmental protection protocols, automatically stopping turbines when bird or bat activity is detected near protected areas.

## **Cybersecurity**

- The platform meets NIS2, ISO/IEC 27001, IEC 62443, and SOC 2 Type II certifications, and is compliant with NERC-Rules providing enterprise-grade cybersecurity resilience.
- It works on Cloud or it can be installed On Premises.

# Projected Results

KPI	Before ARSOS	With ARSOS (Projected)
Average escalation time	5 min	<1 min
Average fault resolution time	30 min	<5 min
Annual O&M savings (*)	-	200 - 600 €/MW / Year
Turbine Operational Capacity by Operator	1000	3000

(\*) Poor operation can lead to costly breakdowns and significant loss of revenue.

# Conclusion: Global O&M Reinvented

With ARSOS Automation Suite, WindOps Iberia now operates with unparalleled consistency and efficiency through:

- Automated, adaptive fault handling.
- Unified visibility across OEMs, regions, and technologies.
- Higher availability and faster service for clients worldwide.

WOI can now expand its managed portfolio without increasing headcount, turning automation into its competitive advantage in the global O&M landscape.

## **Disclaimer:**

*The figures and scenarios described are based on estimates from comparable ARSOS implementations. Actual results may vary depending on each organization's operational profile.*

*Request a demo to see how ARSOS can transform your operations.*

**Want to see how  
ARSOS can  
transform your  
operations?**

**Let's Talk!**