



**Maven  
ProTech**

**Intelligent industrial technologies  
for the people and plants of tomorrow**

The screenshot shows a user interface for an AI assistant named mAventIt. At the top, it says "Hi James, I'm mAventIt" with a hand icon. Below that, it says "Your Green Hydrogen Control Assistant. How can I help you today?". Under the heading "Try asking:", there are several interactive buttons. One button has a lightbulb icon and text "What-if: increase current density to 1.5 A/cm<sup>2</sup>". Another has a lightning bolt icon and text "Current H2 production rate and efficiency". A third button has a plus sign icon and text "Create work order Stack 1 membrane inspection". A fourth button has a gear icon and text "Compressor C-1". On the right side, there is a section titled "STACK HEALTH & MONITORING" with a heart icon. It contains two buttons: one with a heatmap icon and text "Stack health heatmap (cell voltages)", and another with a bell icon and text "Equipment requiring attention".



# Intelligent Energy Operations

**Proven Industrial Technologies — Powered by AI**



# The Net Zero Challenge

The energy transition demands technologies that manage renewable complexity, optimise decarbonisation pathways, and deliver measurable, audit-ready emissions reductions — from grid edge to control room.

**<>**

### Renewable Variability

Wind and solar intermittency demands forecasting, storage integration, and real-time dispatch optimisation.

**⚡**

### New Assets, New Control

Electrolysers, BESS and CO<sub>2</sub> capture need new control and lifecycle strategies — not legacy DCS tuning.

**📊**

### Accountable Decarbonisation

Net-zero commitments require accurate carbon accounting and audit-ready reporting across every asset.

CROSS-CUTTING PLATFORM

# Every Application. One Platform

**🎯** ADVANCED CONTROL  
**MAVEN APC**

Model-predictive control that co-ordinates set-points across electrolysers, turbines, batteries, and capture trains in real time — hitting the economic / emissions frontier simultaneously.

MPC | CONSTRAINT-AWARE | \$/MWh

**📊** ASSET RELIABILITY  
**MAVEN APM**

ML-driven health scoring and time-to-failure prediction for turbines, stacks, inverters, compressors, and pumps. Reduces unplanned downtime and extends 25-year lifecycles.

HEALTH INDEX | ANOMALY ML | RUL

MOBILE COMPANION  
**MAVEN MOBILE**

Your plant in your pocket — live KPIs, alerts and equipment health for every module.

IOS | ANDROID | PWA | OFFLINE

**⚙️** DIGITAL TWIN  
**MAVEN DTWIN**

Physics-based digital twin for scenario testing, what-if dispatch, operator training and hybrid-system design. Validates control strategy offline before live deployment.

WHAT-IF | OPERATOR TRAINING | HYBRID DESIGN

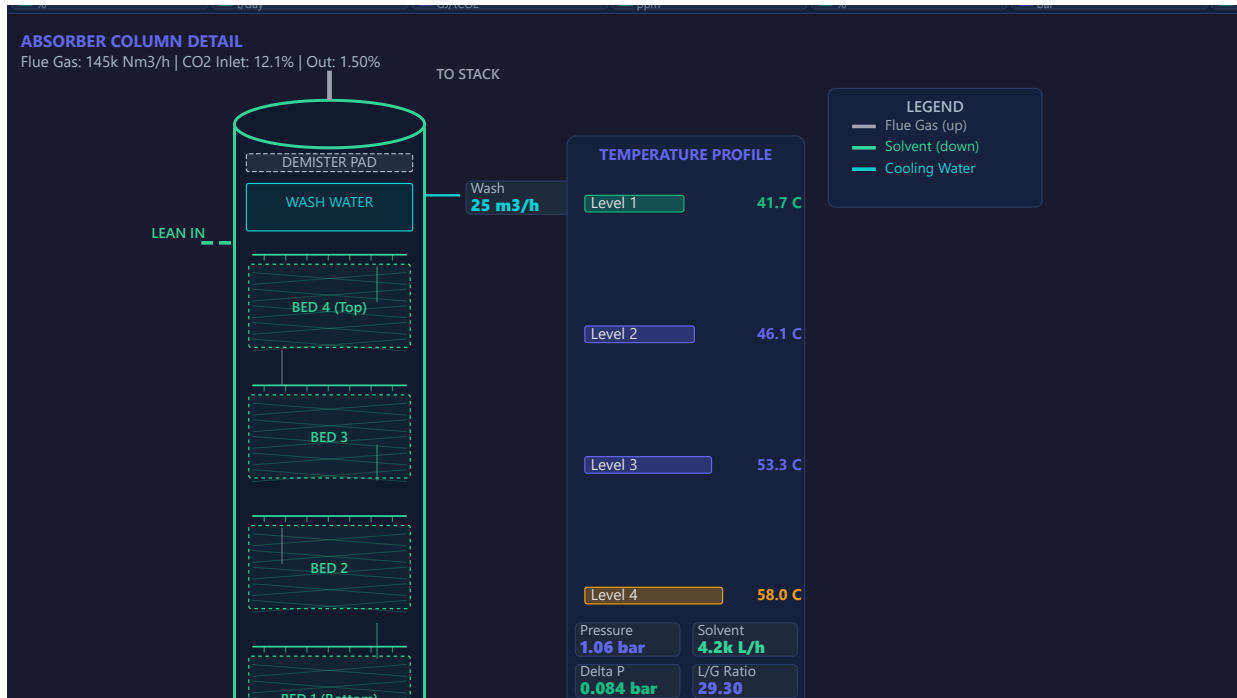
**mAv** AI ASSISTANT  
**mAvent**

Natural-language control for the modern control room. Ask plain-English questions, triage alarm floods, execute multi-step procedures with audit trail — across any asset class.

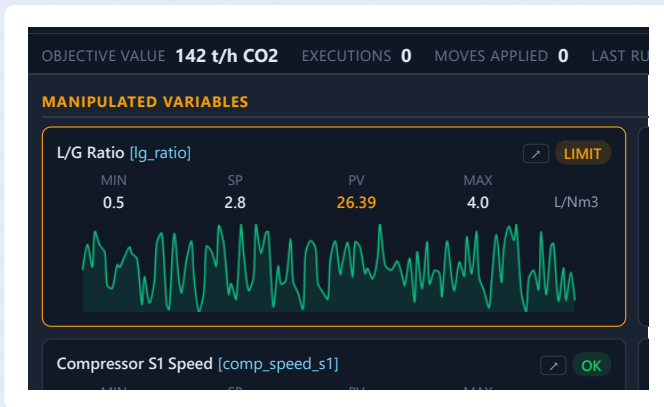
NL QUERIES | ALARM TRIAGE | PROCEDURE AI

# Carbon Capture & Storage

Amine-based and post-combustion CO<sub>2</sub> capture optimisation. Manages solvent regeneration, lean loading and capture rate for maximum reduction at minimum operating cost.

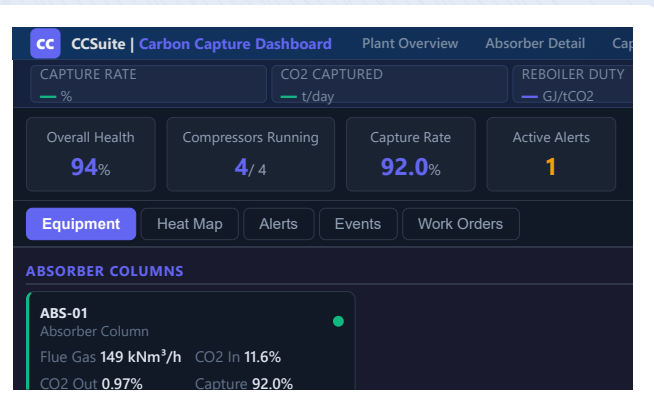


PLANT OVERVIEW — ABSORBER, STRIPPER, COMPRESSION, INJECTION



CCS APC EXAMPLE MVs

- CO<sub>2</sub> capture rate maximisation with energy-penalty minimisation
- Compression & pipeline transport management
- Amine / post-combustion optimisation



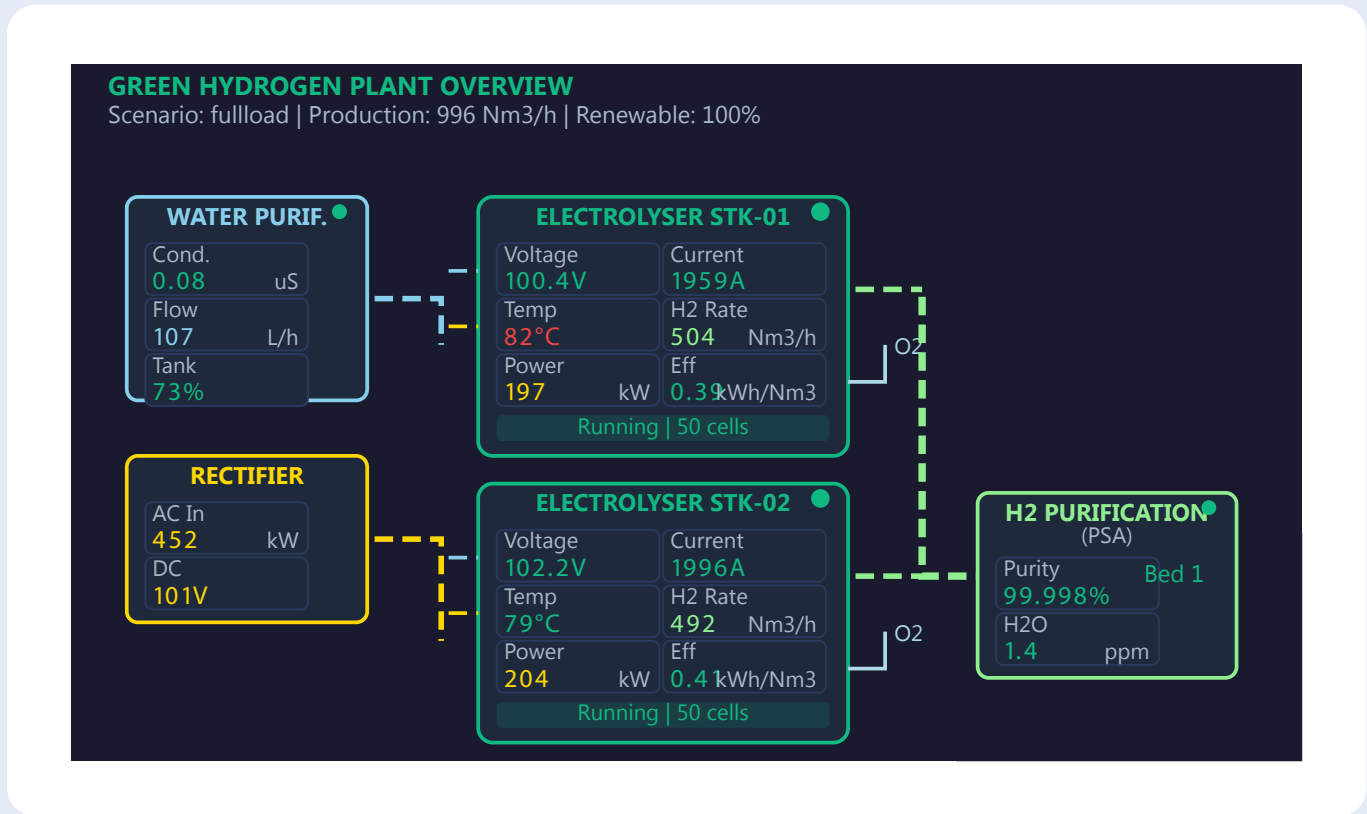
CCS MONITOR

- Solvent degradation monitoring & regeneration control
- Carbon accounting & audit-ready reporting
- Injection well performance & containment tracking

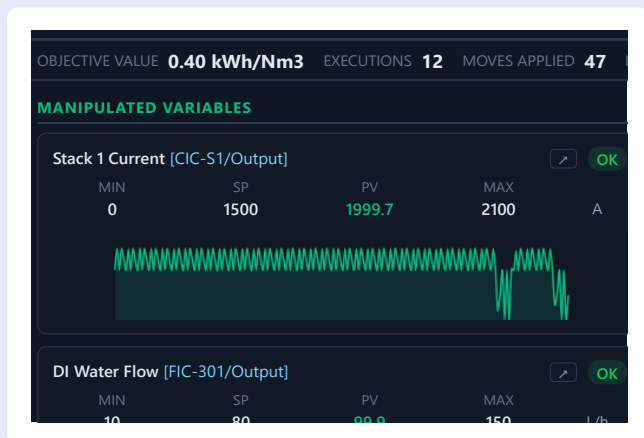
AMINE | POST-COMBUSTION | CO<sub>2</sub> ACCOUNTING | TRANSPORT & INJECTION | APC / APM READY

# Green Hydrogen Operations

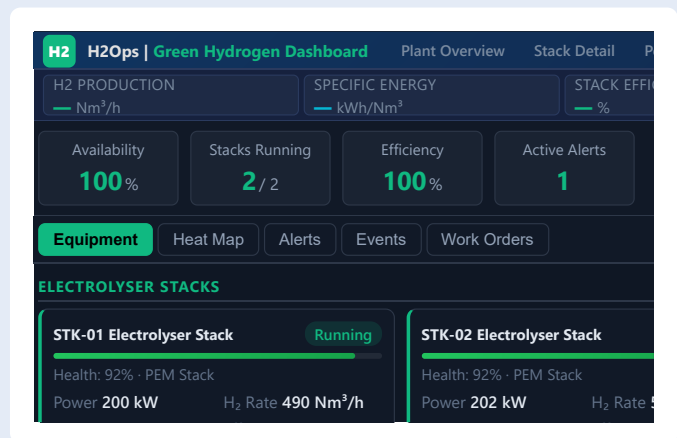
Complete hydrogen plant platform — electrolyser stack control, multi-stage compression, cascade storage management, PSA purification and renewable dispatch integration.



PLANT OVERVIEW — ELECTROLYSERS, COMPRESSION, CASCADE STORAGE, PSA PURITY



H2 APC OVERVIEW



HEALTH MONITOR — FAULTS & DIAGNOSTICS

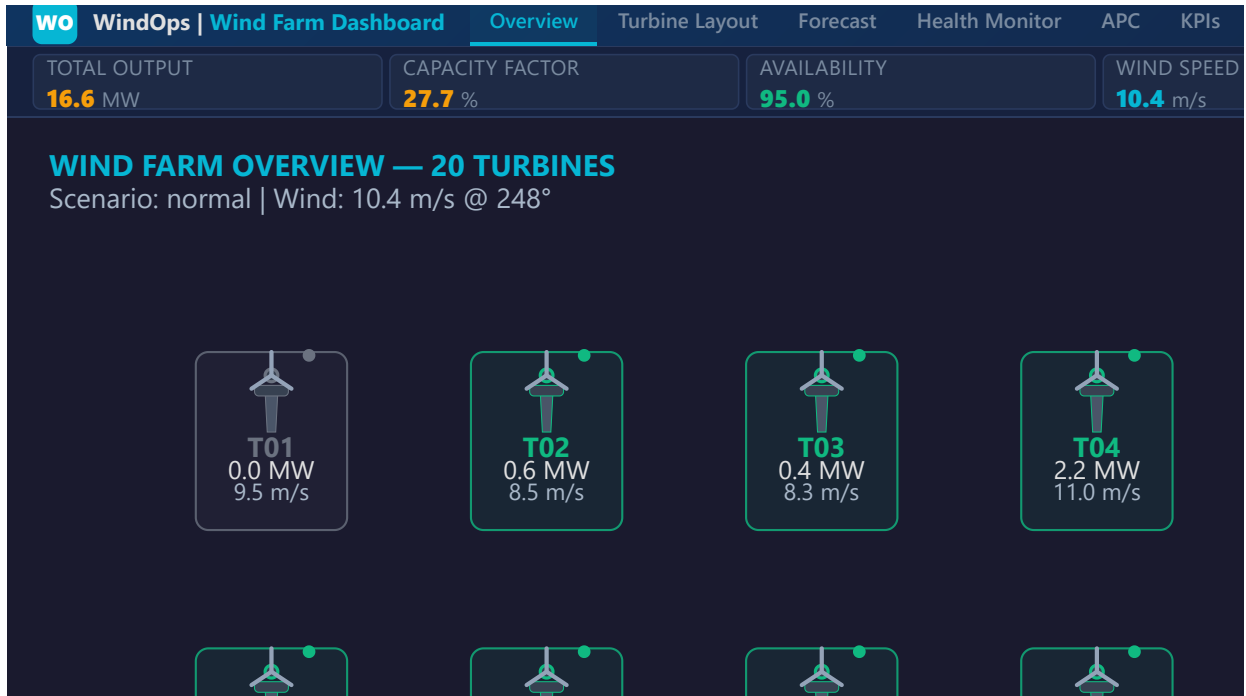
- Dynamic renewable-input following with stand-by management
- Multi-stage compression with cascade storage control
- Electrolyser efficiency optimisation (kWh / kg H<sub>2</sub>)
- Stack degradation tracking & 80,000+ hour lifespan protection
- Hydrogen purity QA to 99.999% with drift detection
- Safety interlocks & emergency venting sequences

ALKALINE / PEM | CASCADE STORAGE | PSA PURIFICATION | RENEWABLE INTEGRATION | APC / APM READY |



# Wind Farm Performance

Real-time farm SCADA, turbine-level performance tracking, yaw & pitch optimisation, wake-effect modelling and curtailment control for onshore and offshore installations.



SOLAR FARM - PERFORMANCE MONITOR



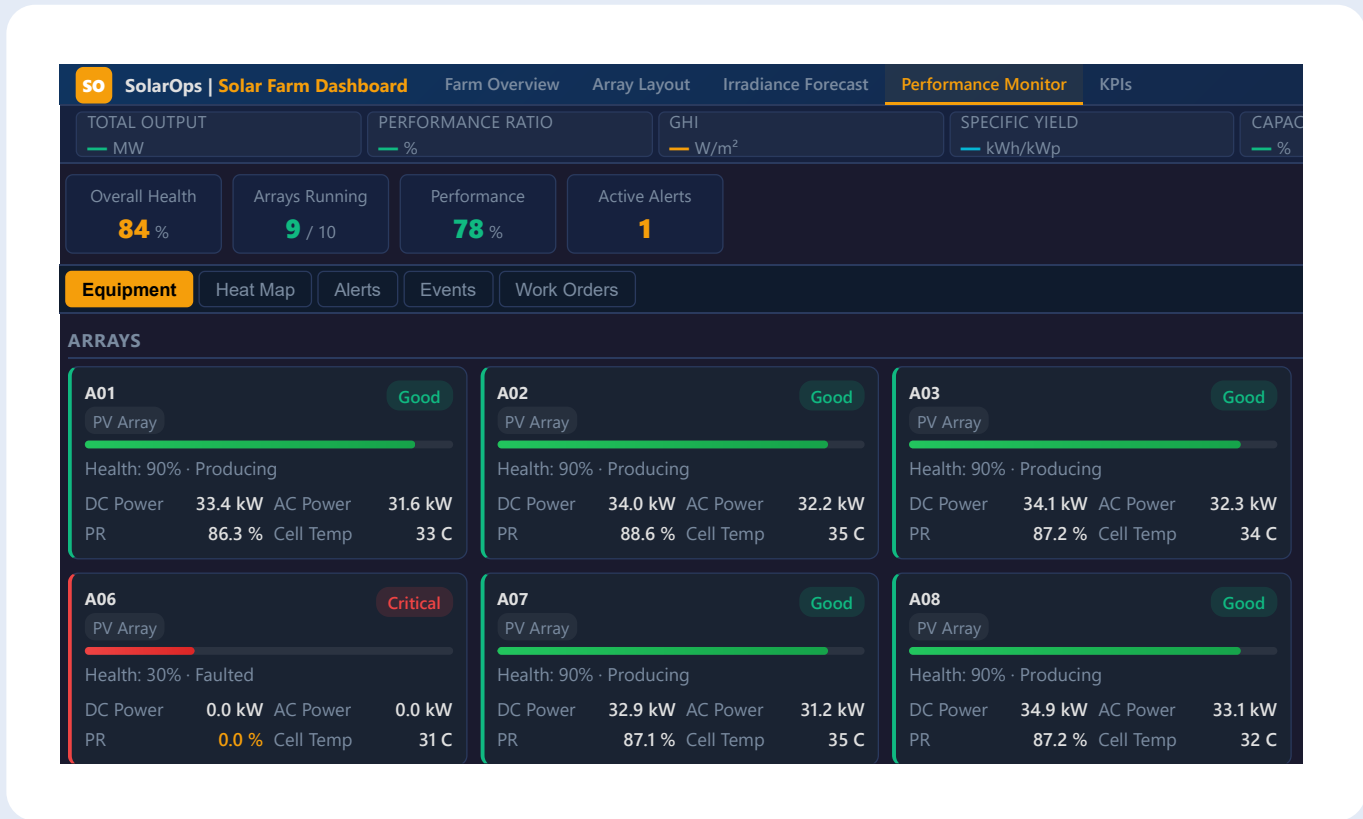
WIND FARM DASHBOARD - KPIS

- Turbine-level monitoring with SCADA analytics
- Wake effect modelling & farm-level power optimisation
- Yaw & pitch optimisation for energy yield
- Predictive maintenance — gearbox, bearing, blade faults
- Weather-integrated generation forecasting for dispatch
- Curtailment control & grid-compliance tracking

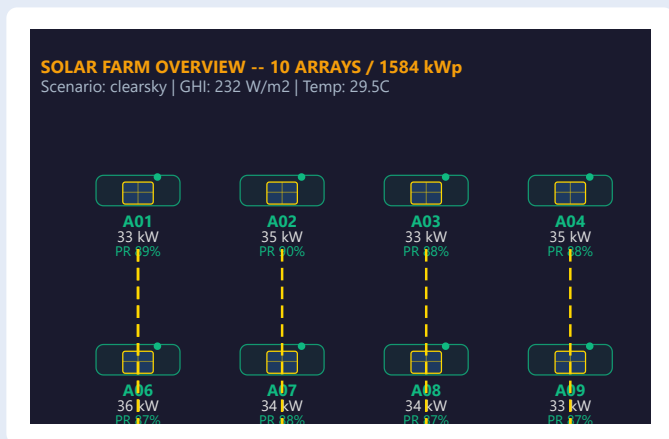
ONSHORE | OFFSHORE | SCADA ANALYTICS | WAKE MODELLING | APC / APM READY

# Solar Farm Intelligence

Inverter and string-level monitoring, soiling detection, performance-ratio analytics and predictive upkeep for utility-scale and distributed PV installations.



SOLAR FARM - PERFORMANCE MONITOR



FARM OVERVIEW



24 HR GHI & POWER FORECAST

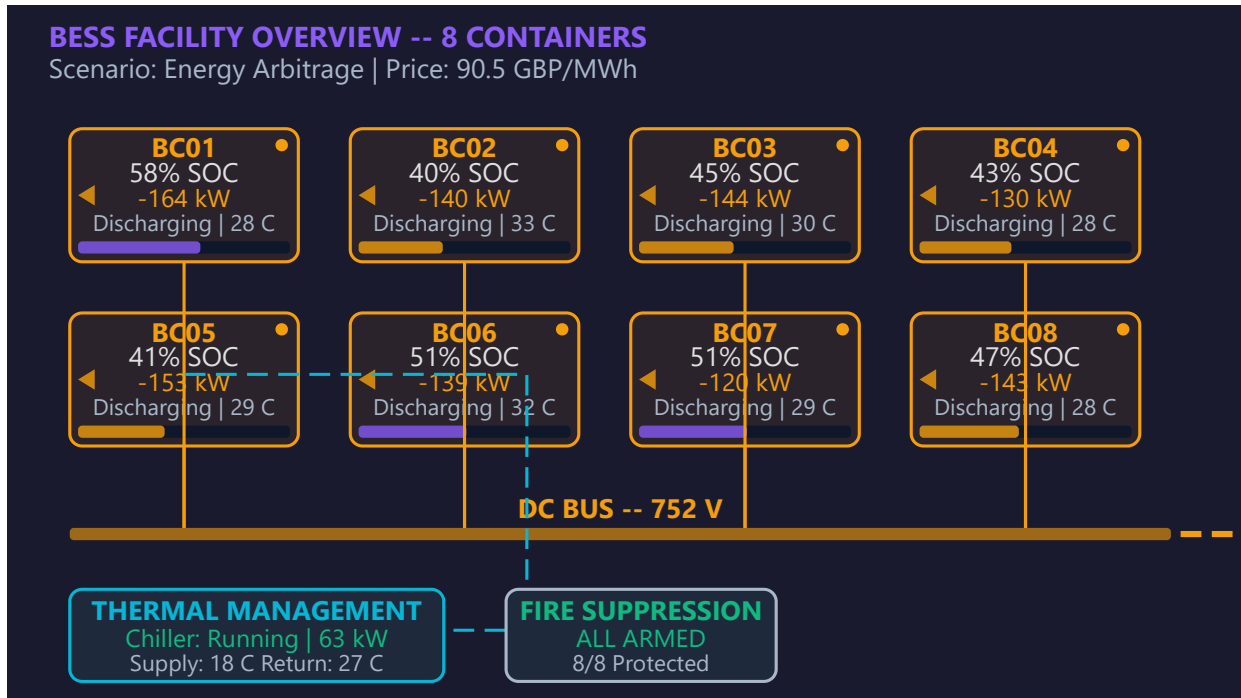
- Panel and string-level performance monitoring
- Inverter efficiency tracking & fault diagnostics
- Performance-ratio & degradation analytics

- Soiling detection with cleaning optimisation
- Irradiance forecasting for dispatch predictions
- Utility & distributed PV at portfolio scale

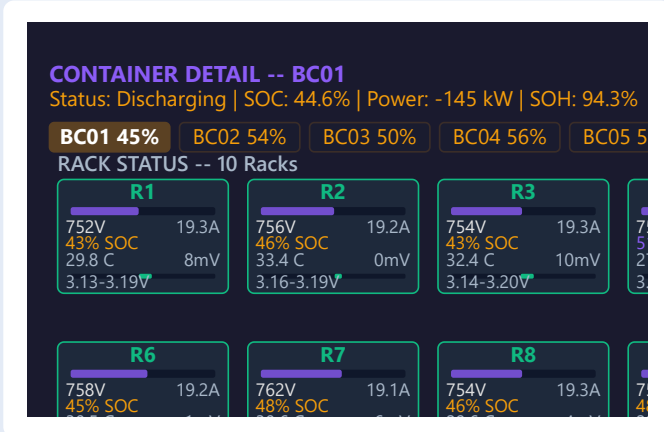
UTILITY PV | DISTRIBUTED | STRING ANALYTICS | SOILING DETECTION | APC / APM READY

# Intelligent Battery Storage

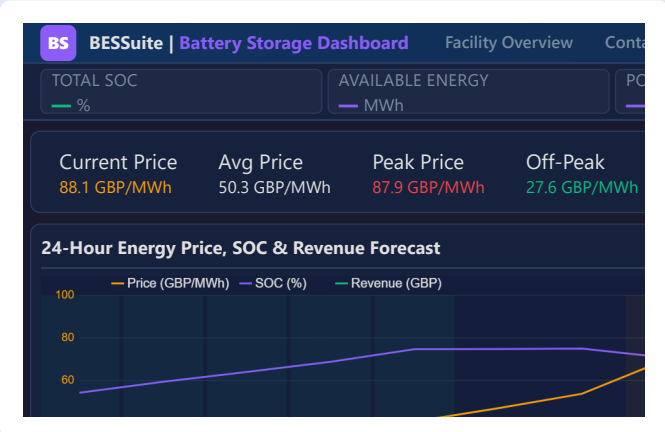
Battery storage management paired with renewables for revenue optimisation, frequency stabilisation and curtailment recovery. Model-predictive charge & discharge control for maximum value.



FACILITY OVERVIEW — CONTAINERS, POWER FLOW, GRID CONNECTION



CONTAINER LAYOUT — SOC / SOH / TEMPERATURE



PRICE FORECAST — ARBITRAGE & DISPATCH

- State of Charge & State of Health per container
- Thermal management and degradation prediction
- MPC-based charge / discharge optimisation

- Revenue maximisation via arbitrage & grid services
- Grid frequency response & ancillary service dispatch
- Renewable pairing & curtailment recovery

GRID-SCALE | C&I | ARBITRAGE | FREQUENCY RESPONSE | APC / APM READY



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for the people and plants of tomorrow**

# Ready to Transform Your Energy Operations?

## **AUTOMATE**

From startup sequences to dispatch optimisation, let our proven technologies - Powered by AI, handle the complexity.

## **OPTIMISE**

Maximise generation, minimise losses, and capture every revenue opportunity.

## **PREDICT**

Anticipate equipment failures before they impact availability or safety.



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### INDUSTRIES SERVED

HYDROGEN | WIND | SOLAR | BATTERY STORAGE | CARBON CAPTURE | OIL & GAS | CHEMICAL | PHARMACEUTICAL

Sixteen Products. One Platform.