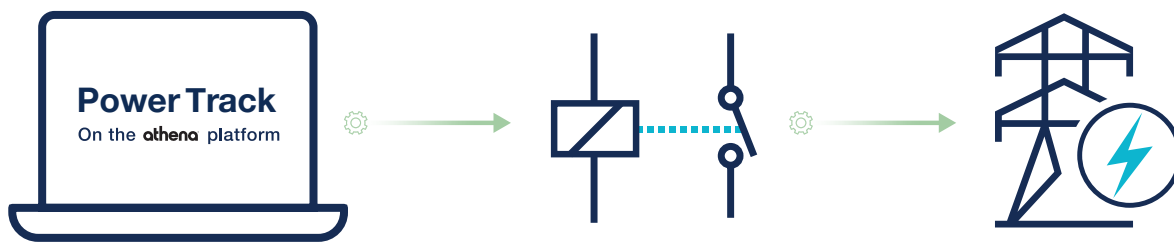# Power plant control

AlsoEnergy's vertically-integrated, edge-to-cloud platform includes a Power Plant Controller that provides power supervision and control of clean energy assets at the meter or interconnection point. Equipped with extensive control functionalities to optimize energy and financial performance, our Power Plant Controller meets the complex demands of utility-grade projects and grid interconnection requirements.

- Stand-alone Power Plant Controller
- Real-time open platform controller architecture (SEL RTAC)
- Controls for PV, storage, and PV+storage plants
- Utility and ISO telemetry over DNP3 or Modbus

- Optional local human-machine interface (HMI)
- High-speed control options available for challenging interconnects
- Seamless integration with PowerTrack
- Rack or panel-mount

Recommended for:

- Complex multi-mode control applications
- High reliability
- High speed control
- Storage
- Utility scale projects

Concurrent controls including:

- Reactive power control (i.e. voltage or PF control)
- Closed-loop curtailment
- Closed-loop ramp control
- Capacitor bank management
- Manual and soft-start switchgear control

AlsoEnergy's vertically-integrated platform ensures one-point of accountability from edge-to-cloud and throughout the asset lifetime. At the cloud level, PowerTrack, AlsoEnergy's flagship application for portfolio optimization, features advances performance analytics and diagnostics, integrated CMMS job ticketing, and reporting, KPI, and aggregation tools for asset managers.

Specifications

General		
	Control capabilities	Simultaneous closed-loop voltage, power, ramp control. Capacitor bank control, switchgear, inverter, and tracker management.
	Control rate	Support for sub-second control rates
	Control command source	Local HMI, PowerTrack HMI, from SCADA
	Operation	Stand-alone, mission-critical power plant controller independent of data acquisition system
	PowerTrack support	Requires PowerManager 2200 or PowerServer3000
	Platform	SEL3505, SEL3530, SEL3560, or SEL3555 depending on project requirements Schweitzer real-time automation controller using industry standard IEC 61131-3 PLC programming

Interfaces		
	Ethernet	Minimum of 2 x 10/100/1000 ports
	Primary protocols	Modbus TCP, Modbus RTU, DNP3, IEC61850, SNMP, IEEE C37.118, IEC60870-5-101/104, and others
	Discrete I/O	Optional, varies by model selection
	Display	Optional local web-based HMI
	Serial ports	Minimum of 3 serial ports

Mechanical		
	Mounting configuration	Outdoor enclosure mount, or 19" rack mount
	Dimensions	Varies based on model selection

Environmental rating		
	Operating temperature	-40°C to 75°C
	Storage temperature	-40°C to 85°C

Electrical		
	Ethernet	Input Voltage
	Primary protocols	Power consumption
	Serial ports	Surge protection

Regulatory		
	Warranty	10-year warranty backed by SEL
	Listings	Listed to applicable UL Standards; FCC Part 15 Subpart B Class A