

ELECTRICAL & CONTROL ENGINEERING

ENERGY & INDUSTRY

Everywhere

Everyone

Everything

Engineering





Electrical & Automation Solutions

+15 years Experience

International experience

+ 40 Large-scale Projects Delivered

+ 5,000 MW Installed and Connected

End-to-end coverage

From FEED to Detailed Engineering
Cabinets & E-House Turnkey Solution

Global and strategic vision

Design & Schedule Optimization

+ €600M Managed in EPC Projects (PMP®)

Dynamic and Client-Focused

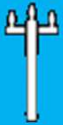




**AI
INFRASTRUCTURES**

1

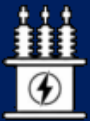
**Energy Storage
Data Center**



**AIS/GIS Substation
Synchronous Condenser
MV/HV Distribution**

2

**GRID
INFRASTRUCTURES**



**POWER
GENERATION**

3

**Combined Cycle
Gas/Fuel Engines
Wind & Hydro**



**Manufacturing
Oil & Gas
Water
H2**

4

INDUSTRY

TAILOR-MADE SERVICES



GREENFIELD & BROWNFIELD



SKIDS

PACKAGE PLANTS

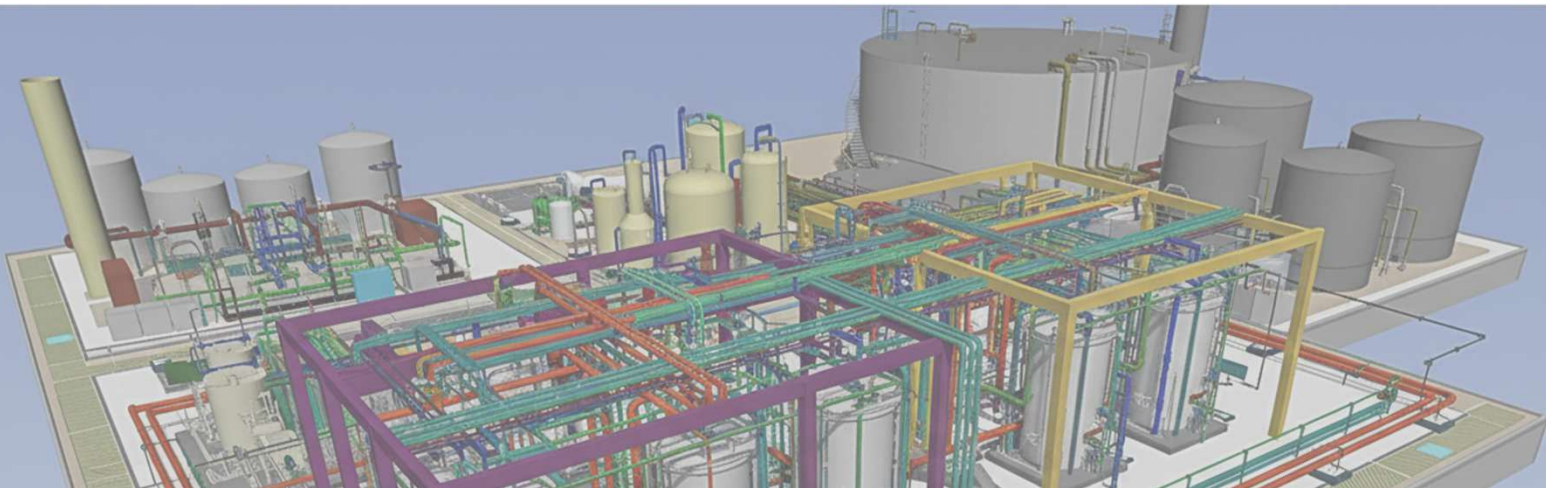
MECHANICAL SYSTEMS



LARGE-SCALE PLANTS

INTEGRAL INDUSTRIAL FACILITIES

WATER CYCLE – BOILER – H₂ – AIR/WATER COOLING - GAS SKIDS – HANDLING & MINERY





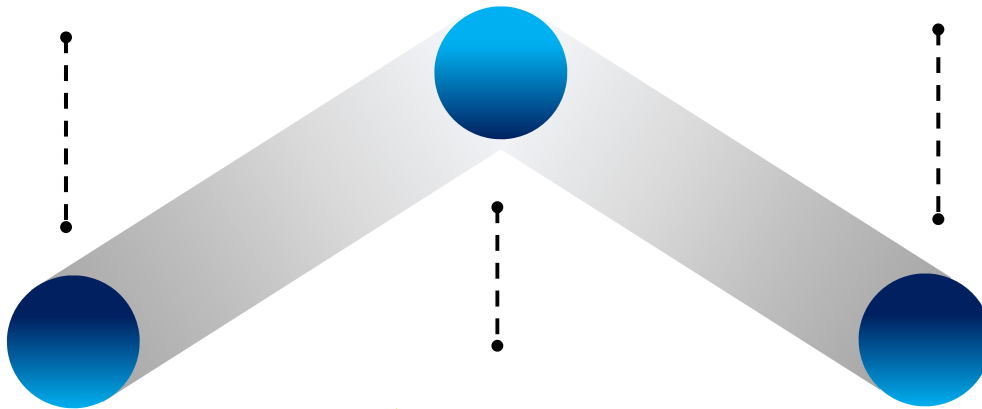
IEC 61850

SCADA Configuration
GOOSE Trips & Interlocks
Redundancy Implementation



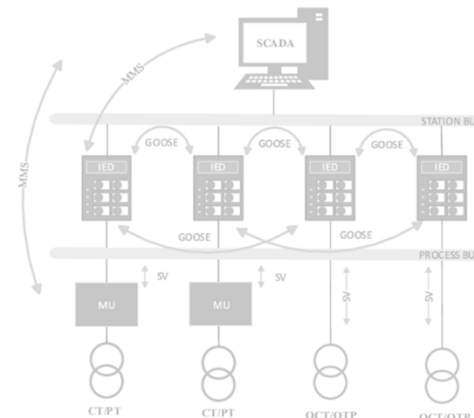
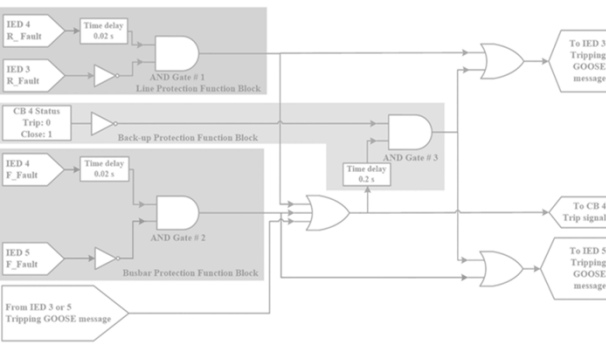
SETTINGS

Protection Calculation
Alarm Configuration
Group Setting Requirements



LOGIC

ATS Configuration IEEE 666
Interlocks and Logic
Development





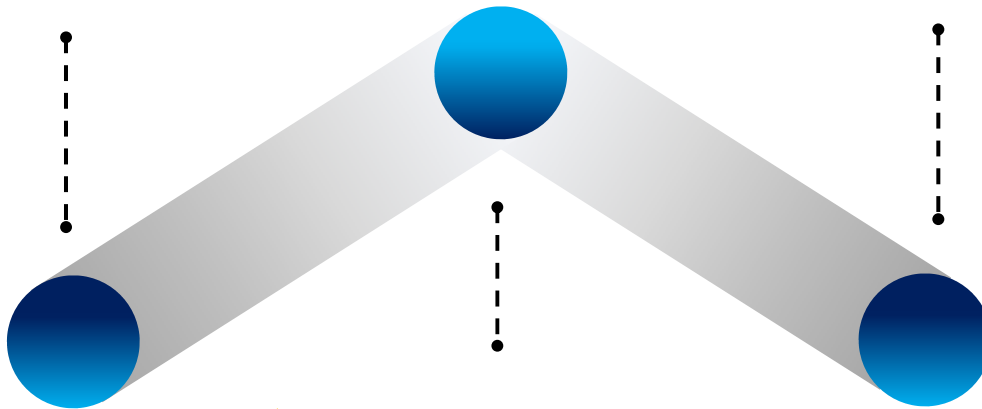
NETWORK DESIGN

Logical / Physical Segmentation
Network Design & Configuration
Virtual Infrastructure



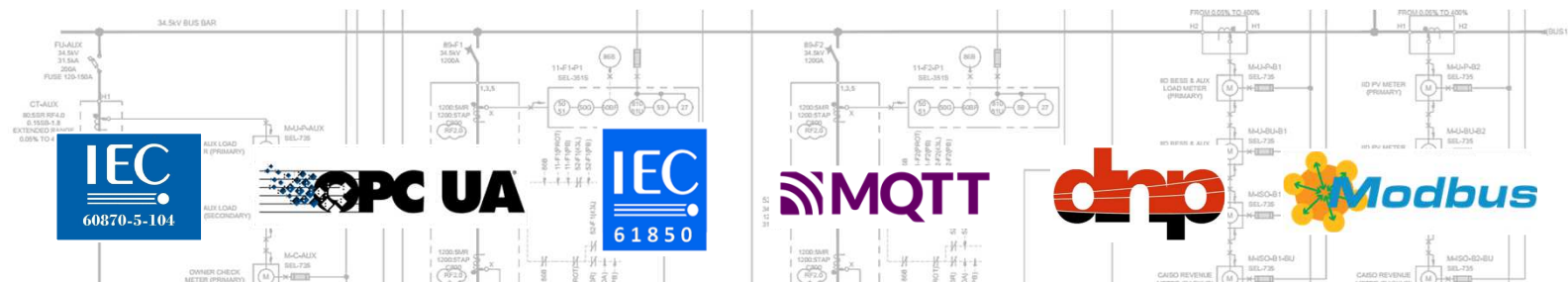
COMMUNICATION

High Availability HSR+PRP+RSTP
Industrial Standards and Protocols
Industry & Electrical Infrastructure



SYSTEM INTEGRATION

Integration with DCS, PLCs, SCADA
Protocol Translation and Gateways
Legacy Network Revamp





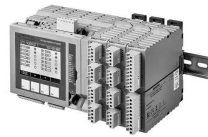
ECS/DCS ENGINEERING

Design, Configuration
and Commissioning
Electrical, Energy and Industry



PLC & SCADA - IEDs

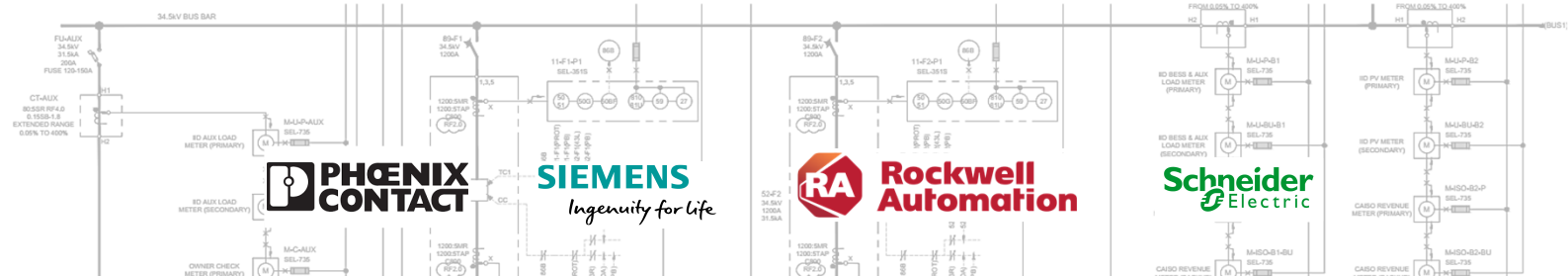
Control Logic Development
Alarm Management and Historian
ISA-101 Principles



LEGACY SYSTEMS

Enhancement & Migration
Integration with IoT, Edge Computing
and Hybrid Cloud Solutions

Omnivise T3000 – Simatic PCS NEO – Simatic PCS7 – PLC Next – Plant Pax – Foxboro





OT ASSESSMENT

Compliance Analysis Audits and Pentesting Regulatory and Standards

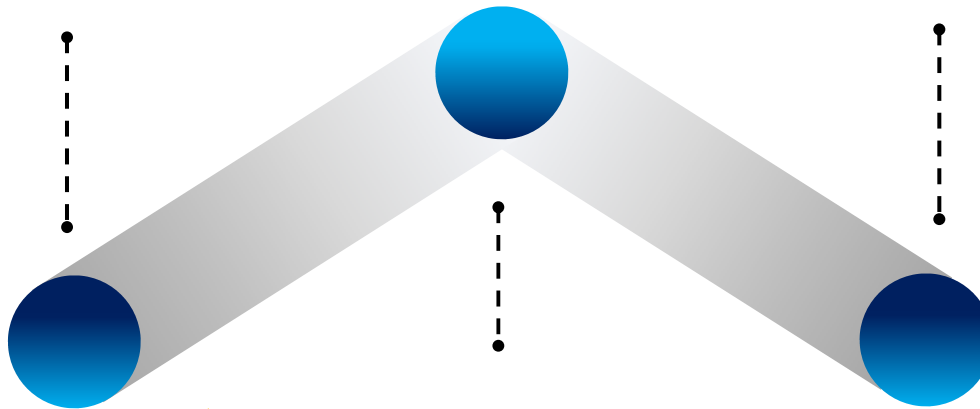


ISA IEC 62443



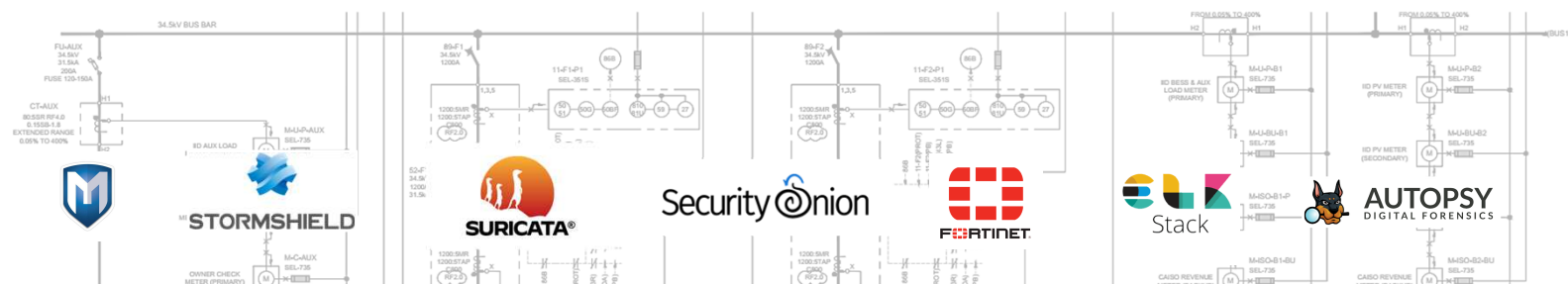
VULNERABILITY

Analysis Remediation Risk Mitigation Strategies



CYBERSECURITY BY DESIGN

Control System Hardening
Industrial Network Protection
Continuous Monitoring & Advanced Anomaly Detection



**DESIGN**

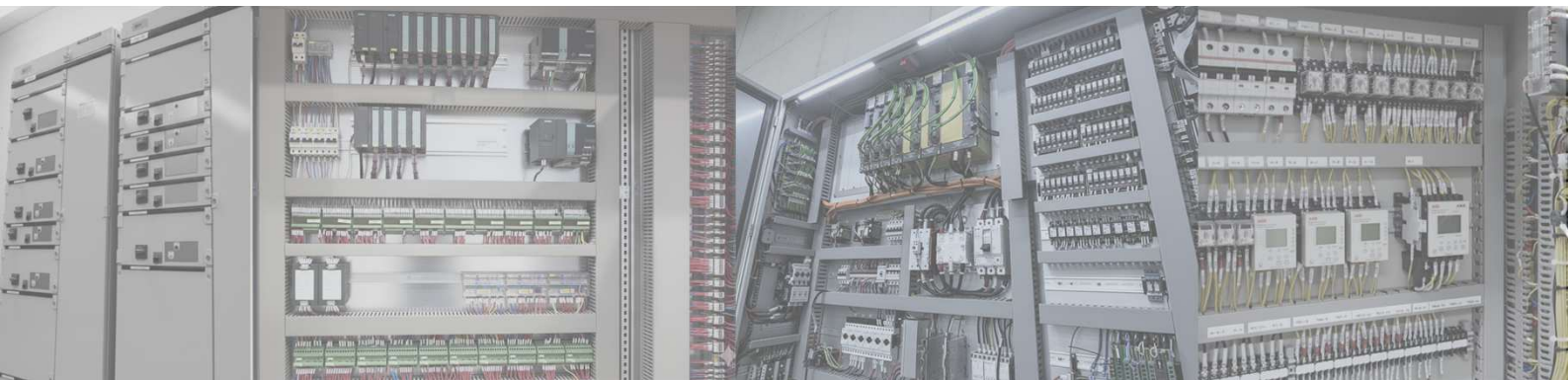
Detailed Wiring Diagram
Material Lists inc. Purchase
Mechanical Drawings

**FACTORY**

Laboratory & Full Development
MV, LV, PC&M Capability

**TESTING**

IEC 61850 & Comm. Simulation
Primary & Secondary CT/VT Test
Secondary Circuit Testing

**LV SWGR. & MCC****PROTECTION****CONTROL (PLC, I/O)****AC/DC DISTRIBUTION****JUNCTION BOX / LCP**



TURNKEY SOLUTION

**Electrical & Mechanical Design
E-House Manufacturing
HVAC, Lighting & Fire Fighting Installation
E&C Cabinet Integration
Full Package FAT Test Certificates**



CUSTOMIZED DESIGN

**ISO Std. Maritime vs Customized Size
Up to three Modules Room ($\approx 120 \text{ m}^2$)
Seismic up to High Performance (IEC 693)
ATEX Certifications
Fire Rating up to EI240
Colors and Paint Durability**





POWER GENERATION

- 240 MW 2x1 Combined Cycle Power Plant (Granadilla, Spain)
- 860 MW 2x1 Combined Cycle Power Plant (Besos V, Spain)
 - 50 MW Cogeneration Plant (Muskiz, Spain)
- 340 MW 2x1 Combined Cycle Power Plant (Venezuela)
- 450 MW 5x1 Combined Cycle Power Plant (Mozambique)
 - 120 MW Gas Engine Power Plant (Mozambique)
- 420 MW 2x1 Combined Cycle Power Plant (Ivory Coast)
- 270MW, 450MW, 850 MW Combined Cycle Power Plant (México)
- 200MW & 207 MW Hydraulic Power Plant Miguillas (Bolivia)
 - 475 MW Multisite Diesel Engine Power Plant (Chile)
- 230 MW 3x1 Combined Cycle Power Plant (Jamaica)
 - Thermosolar Power Plant 50 MW (Kuwait)



GRID ELECTRICAL INFRASTRUCTURES

- 400kV GIS Substation (Mexico)
- 115kV Underground Transmission Line (Mexico)
- 400kV & 230kV Overhead Transmission Line (Mexico)
 - 400kV & 230kV AIS Substation (Mexico)
- 50MVA High Inertia Synchronous Condenser (Lithuania)
 - 50MVA High Inertia Synchronous Condenser (UK)
- 250MVA High Inertia Synchronous Condenser (Netherlands)
 - 50MVA High Inertia Synchronous Condenser (Spain)
 - 220kV, 132kV & 66 kV AIS Substation (Chile)



INDUSTRY

- Stackers/Reclaimer Machines (x2) for Steel mill. (Wales)
 - Stackers/Reclaimer/Belts (4km) for Dibba Port (UAE)
- Water & Wastewater Treatment Plants associated to CCPP (+10)
 - Sugar Plant – Mill, Refinery and Packaging (Tanzania)
 - Cement Grinding (Spain, Lebanon and Morocco)

*Together for innovation,
responsibility, and
sustainability*



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