



DIGITAL SUBSTATION TRAINING CENTRE

Experience, Omexom's Hands-on, multi-vendor IEC 61850 training in a realistic digital substation environment

DIGITALIZED

PROTECTION
SCHEMES

PRP

REDUNDANT
NETWORK

4

PROTECTIVE
IED'S

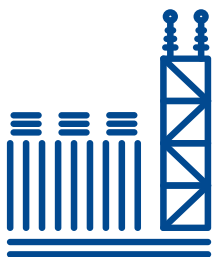
3

HV BAYS

3

BAY CONTROL
UNITS

SUBSTATIONS SOLUTION



Omexom's IEC 61850 Substation Training Centre is a dedicated training setup, providing a realistic digital substation environment where engineers can learn, test, and validate IEC 61850 engineering, communication, and interoperability. Featuring multi-vendor IEDs, SCADA integration, and PRP network redundancy, the platform enables hands-on training in configuration, commissioning, GOOSE messaging, sampled values, and end-to-end substation automation workflows.



THE CHALLENGE

- Very few integrated test facilities exist for IEC 61850
- Engineers lack hands-on, multi-vendor, end-to-end experience
- Live-project engineering & commissioning costs make in-field learning impractical



KEY BENEFITS

- Vendor-independent, not tied to one manufacturer's tools
- Realistic & integrated, automation and SCADA together
- Safe, repeatable, commissioning-style exercises

THE SOLUTION: WHAT'S IN THE TRAINING RIG?

Trainees configure and validate interlocking, datasets & reports and GOOSE/sampled values exchange end-to-end, mirroring real commissioning workflows

Multi-vendor IEDs: 4 protection relays
+ 3 bay control units (BCUs)

PRP network, test redundancy & monitor
GOOSE / Sampled Values message flows

Separate telecom domain: switching
infrastructure, SCADA server, firewall boundary

3 HV bays + dedicated secondary installation
mirroring a real digital substation



Omexom strides to give its engineers a safe environment to learn, program and commission a high-complexity, multi-vendor IEC 61850 system.

Modular design with IEC 61850 · ~3,860 W

OMEXOM

For any questions regarding this solution, please contact:

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