



DUYEN HAI 220KV SUBSTATION

End User: National Power Transmission Corporation of Vietnam Electricity (EVNNPT)

Partner: Kyland Vietnam Distributor TCA Technology

Location: Tra Vinh province, Vietnam

Year: 2023

Success Story

BACKGROUND

The Duyen Hai 220kV Substation is in Duyen Hai district, south Vietnam. It's owned by the National Power Transmission Corporation of Vietnam (EVNNPT). The substation is crucial for meeting the growing energy demands and enhancing the reliability of the power supply in the area.

It is invested and built with the goal of supporting power supply for 110kV substations of Duyen Tra, Cau Ngang, Tra Cu, Dan Thanh and Dinh An; prevent overload for Tra Vinh 220kV substation, support load supply for the substation in case of breakdown or transformer maintenance and repair; ensure safe operation, reduce power loss and stabilize the grid; receiving and releasing the capacity of Wind Power Plants in Tra Vinh province.



SYSTEM REQUIREMENTS

An important part of the substation is the control, protection, measuring, metering, communication and SCADA systems where the industrial network plays a vital role as the backbone. EVNNPT has set the technical requirements of the industrial network following the latest and highest international standards mainly IEC61850-3 and IEC61850-4.

OUR SOLUTION

After study the technical requirements, Kyland with its partner provided cutting-edge products, each selected for their reliability and compliance with stringent standards:

PTS-10A:

High accuracy time server ensured precise synchronization across all network components, critical for system coordination and reliability.

Product Detail:

www.klgsmartec.com/product/pts-10a/



SICOM3028GPT:

KEMA certified modular switch as the backbone for robust data communication, essential for real-time monitoring and control. Modular design and abundant modules (Ethernet Module, HSR/PRP Module, Time Server Module, IRIG-B Module, Serial Module.etc) makes it intelligent, multi-functional, expandable and flexible to customize based on project demand and easy to maintain. Up to 28 gigabit ports satisfy the high switching capacity requirements. Wide operational temperature(-40°C to +85°C) and high EMI protection level guarantees its performance in all kinds of harsh environment. Hot-swappable redundant power supply maximize its durability. Different redundancy protocols ensures the network resilience.

Product Detail:

www.klgsmartec.com/product/sicom3028gpt/



Ruby3A:

Redbox support HSR and PRP offered unparalleled redundancy and network reliability, ensuring continuous operation even in the event of a network failure.

Product Detail:

www.klgsmartec.com/product/ruby3a/



WHY KYLAND

- One-stop IEC61850 Networking Solution provider with Ethernet Switch, HSR/PRP Redbox, GPS Timer server and Gateways.
- KEMA certified Ethernet Switch ensure the reliability to operate under harsh environment.
- 5-year warranty.
- Interoperability tested with almost All major protective relay suppliers.
- Solid background and rich experience in digital substation implementation.

KGW Gateway:

Bridged different communication protocols within the station, facilitating seamless data integration and system interoperability.



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