GE Revolutionizes High Voltage Direct Current Controls

Introducing eLumina™, GE’s New Advanced Digital Control System

HVDC APPLICATIONS

Connecting Renewables
Up to 25% increased renewable generation by 2040

Infused Urban Areas
Small footprint to provide controllable and efficient power into congested urban areas

Multi Terminal
Provides controllability of power flow and facilitates future expansion

Interconnecting Grids
Enables energy exchange between asynchronous electrical grids

Transferring Bulk Power
25% increase in total global demand for electricity

Digitization and fiber optic networking eliminates over 80% of hard-wired connections

50% reduction in footprint results in reduced complexity and reduction in audible noise

FIRST HVDC CONTROL SYSTEM TO IMPLEMENT A HOMOGENEOUS IEC61850 CONTROL, PROTECTION AND MEASUREMENT SYSTEM, ENABLING THE ADVANCED HVDC DIGITAL SUBSTATION OF THE FUTURE, TODAY.

Digital Substation Benefits:

REDUCED CAPEX
- ~30% quicker installation
- Over 80% copper cable reduction
- ~30 tons less material to transport

REDUCED OPEX
- ~50% reduction in outage time
- Reduced maintenance
- Maximized asset utilization

IMPROVED SAFETY
- Fiber optic communications
- Minimal wired connections
- Cyber Secure

For more information, visit the Grid Solutions website.