

Overview

Title	Training Course Introduction to HVDC and Project De-risking
Provider	The National HVDC Centre ("HVDC Centre") <i>Part of Scottish Hydro Electric Transmission plc (Company Number SC213461), working together with Scottish Power Transmission (SPT), National Grid Electricity Transmission (NGET), and the Electricity System Operator (ESO)</i>
Provider Contact	Mohamed Elgenedy mohamed.elgendy@sse.com
Dates and Times	One day, 10am to 4pm, at dates to be agreed Typically run once per quarter
Summary	A one-day course covering: • Introduction to HVDC technologies • Typical project lifecycle and delivery challenges • Typical simulation and testing processes for HVDC The training will be delivered in-person using a combination of presentations and technical demos.
Further Information	Held at The National HVDC Centre, Cumbernauld with lunch and refreshments provided.

The National HVDC Centre is part of Scottish & Southern Electricity Networks, which is a trading name of Scottish Hydro Electric Transmission plc, registered in Scotland No. SC213461, having its Registered Office at Inveralmond House, 200 Dunkeld Road, Perth, PH1 3AQ; and is a member of the SSE Group.

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Introduction to HVDC and Project De-risking

1) Welcome and Introduction

- Overview of the HVDC Centre
- Plan for the day

2) Introduction to HVDC

- Applications: interconnectors, offshore wind, multi-purpose
- LCC, VSC, converter topologies (benefits and limitations)
- Main plant components

3) Overview of HVDC control and protection

- Basic components
- Functions and control hierarchy
- Protection and DCCB overview

4) Project delivery and other challenges

- Project lifecycle, from planning to operation
- Supply chain and resource constraints
- Civil works, including cable laying

5) Tour of the Centre with demos

- Showing examples of current and past analysis and de-risking activities

6) How to de-risk projects

- Key challenges
- Role of modelling, simulation and analysis
 - Different types of models and their uses, challenges, and limitations
 - New and emerging approaches
- Examples from HVDC Centre experience

7) Review and Wrap-up

- Further resources
- General Q&A