

## Overview

<b>Title</b>	<b>Training Course</b> <b>Introduction to HVDC and Project De-risking</b>
<b>Provider</b>	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>
<b>Provider Contact</b>	Colin Foote, Senior Simulation Engineer <a href="mailto:colin.foote@sse.com">colin.foote@sse.com</a>
<b>Dates and Times</b>	One day, 10am to 4pm, at date to be agreed
<b>Summary</b>	<p>A one-day course covering:</p> <ul style="list-style-type: none"><li>• Introduction to HVDC technologies</li><li>• Typical project lifecycle and delivery challenges</li><li>• Typical simulation and testing processes for HVDC</li></ul> <p>The training will be delivered in-person at an agreed location using a combination of presentations, technical demos, and workshop activities.</p>
<b>Further Information</b>	Customer to organise a suitable location with presentation facilities, lunch, and refreshments.

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## Day One – Introduction to HVDC and Project De-risking

### 1) Welcome and Introduction

- Participant introductions and learning expectations
- 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

### 4) Project delivery

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

### 5) Introduction to HVDC modelling, simulation and analysis

- Different types of models and their uses, challenges, and limitations
- New and emerging approaches

### 6) How to de-risk projects

- Differences from AC projects
- Role of modelling and simulation
- Examples from HVDC Centre experience

### 7) Review and Wrap-up

- Further resources