Western Link HVDC
Orestes Macchione – Business Development Manager
Western HVDC Link
Project Overview

- Customer: NGET/SPT Upgrades Ltd.
- Design: HVDC Classic Transmission Link.
- Rating: 2,200 MW / 6 hours: 2,400 MW.
- Voltage: 600kV DC / 400kV AC.
- Length: 260 miles DC cable

- Key Facts:
  - Largest ever Contract awarded by NG/SP.
  - Highest ever Rating for a Cable Scheme.
  - Highest ever Voltage for a Cable Scheme.
  - First time HVDC technology is used as an integral part of the GB Transmission System.
  - More than 3,500,000 hours worked without a lost-time
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Project Overview

- Project consistent with obtaining 30% UK Electricity from renewables by 2020 and cutting emissions 57% by 2030.
- Existing AC links close to full capacity. Already enhanced with compensation.
- Bi-directional, securing energy in Scotland.
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Scope of Works

- Turnkey Solution
- Overall System Design & Studies
- Engineering, manufacturing and Supply of Converter Station components, including Transformers, Thyristor Valves, Controls, Cooling System, Smoothing Reactors, Shunt Reactors, DC switchgear and ancillary equipment.
- 400kV AC Filters, Switchgear (GIS / AIS) and Protection associated with new converter stations, including building / enclosures at Hunterston.
- 400kV AC cable between Converter and Connecting Substations.
- SVC Plus at Hunterston in the range of +/-250 Mvar.
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Overall Link Design

Converter Bipole design / two dc cables
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Hunterston - Site Location
Western HVDC Link
Hunterston Site
Western HVDC Link
Layout – Plan View Hunterston
Western HVDC Link
Layout – Plan View Hunterston
Western HVDC Link
Layout – 3D View Hunterston
Western HVDC Link
Hunterston - Site Views

Hunterston Converter Station
Western HVDC Link
Converter Hall - Hunterston

SIEMENS
Ingenuity for life.
Western HVDC Link
Converter Hall - Hunterston
Western HVDC Link
Filter Hall - Hunterston
Western HVDC Link
Flintshire Site
Thank You

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