

How to deliver at pace Panel Session- 1300

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2030 Commitment = HVDC



1) HVDC required to connect offshore wind

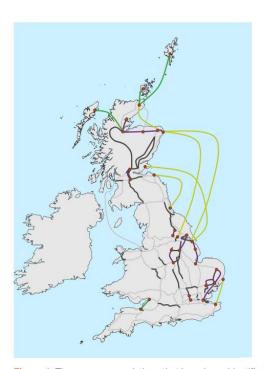
| Existing network | |
|--|-----------|
| New network need | |
| New offshore HVAC | _ |
| New offshore HVDC | - |
| HND offshore wind farm | \Q |
| Onshore substation to connect new infrastructure | • |



ScotWind

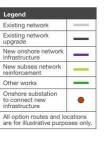
Figure 2: The new network needs identified through the HND.

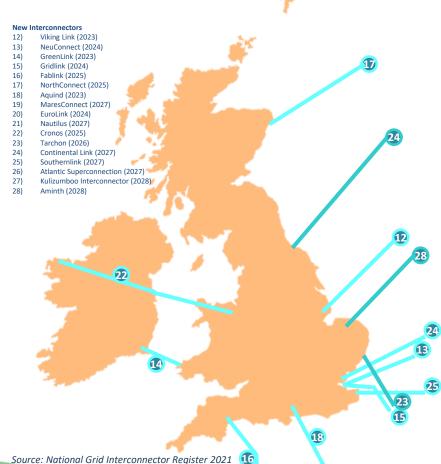
2) HVDC required to reinforce the network



| Fi | gure | 1: Th | nose | recommend | ations | that | have | been | identified | as | necessary | previo | usly | 1. |
|----|------|-------|------|-----------|--------|------|------|------|------------|----|-----------|--------|------|----|
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3) HVDC required to Interconnect to Europe (&NI)





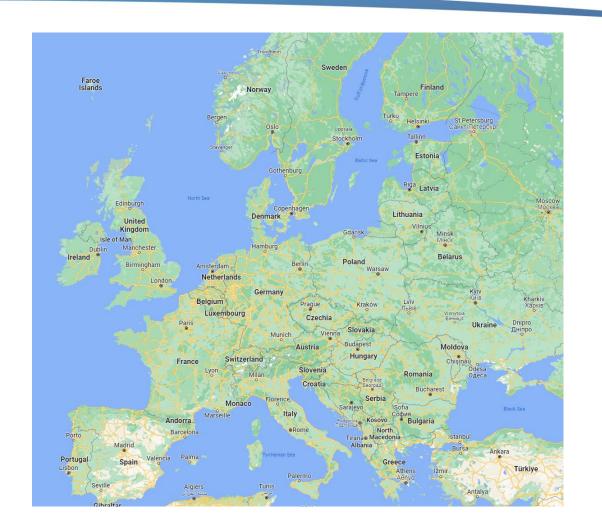
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National Grid ESO, Holistic Network Design: https://www.nationalgrideso.com/document/262676/download

HVDC orders in Europe.



- 40 VSC projects in delivery between 2025-2030;
- In one week, forward order of 22 converters by one TSO
- EU have requested information from SET group on critical components and vendors for consideration of further blockbooking of capacity in response to US Inflation reduction act.



HVDC orders in US

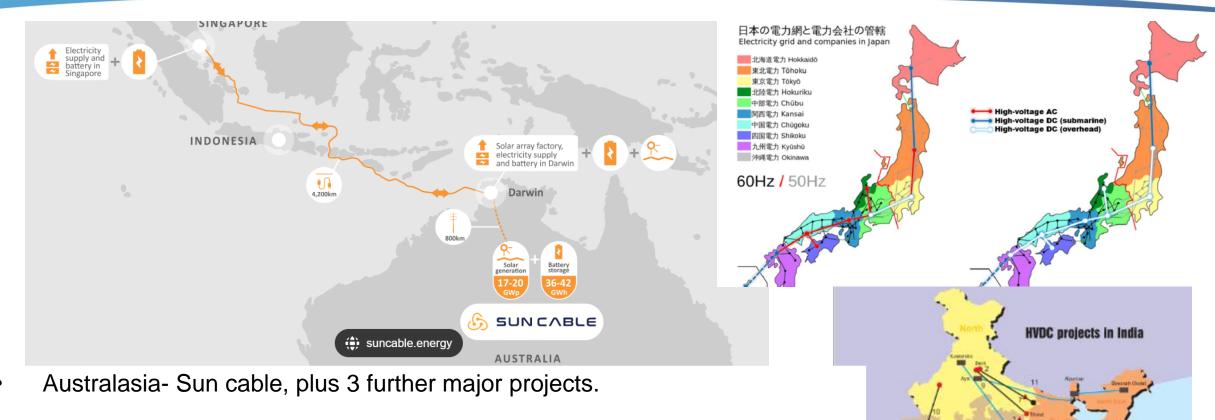


Overall aim for 54 + HVDC converters by 2040s.



HVDC in South East Asia & Australasia





- Japan 1GW only of extra VSC HVDC. NEDO project has strong similarities to Aquila objectives.
- KEPCO up to 12GW of offshore wind, but around 4GW likely as VSC HVDC.
- India- new LCC HVDC planned, no new VSC HVDC as yet, but large offshore wind bid zone areas about to be announced.

Scottish & Southern

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