The National HVDC Centre

Summary of Planned Expansion

June 2024

The National HVDC Centre

Scottish & Southern Electricity Networks

HVDC Centre Expansion: The Need

Taken together the ESO's 'Beyond 2030' and 'Pathway to 2030' highlight £80 billion investment in the electricity network; of which 60% is expected to be HVDC technology.

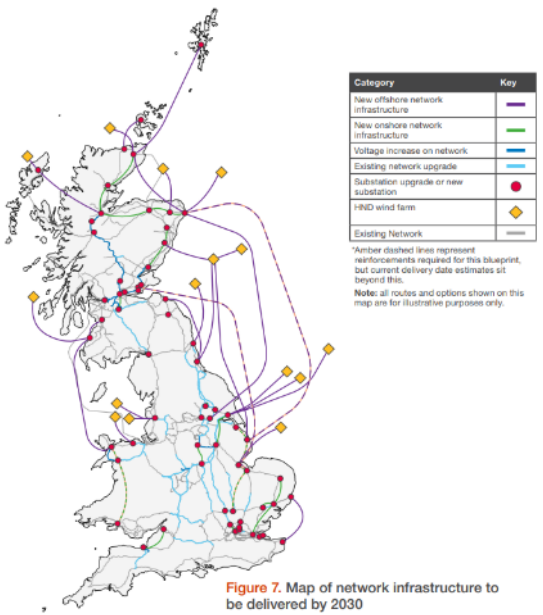


Figure 7. Map of network infrastructure to be delivered by 2030

'Pathway to 2030'

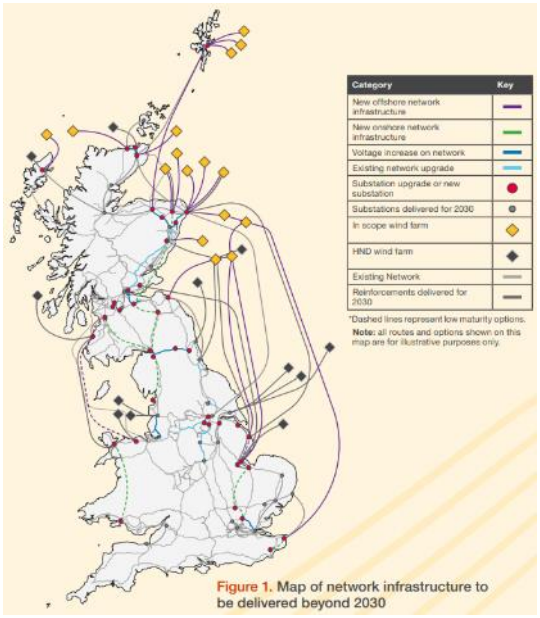
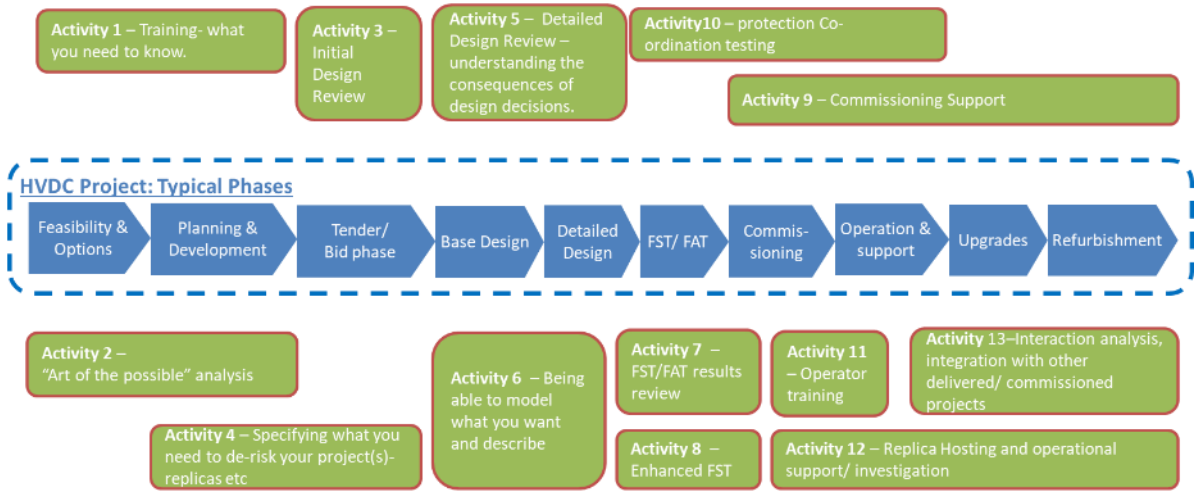


Figure 1. Map of network infrastructure to be delivered beyond 2030

'Beyond 2030'

The Centre plans to support all TO and ESO projects, and is planning to provide support to HVDC-connected OWFs and interconnectors as required.



HVDC Centre Expansion: Planned Expansion

The National HVDC Centre

To be able to provide this support we are planning in RIIO-T3 (2026-2031) to expand our **People, Building, Simulation Infrastructure,** and **Replica Hosting Capacity**.

People

20 to 38

Headcount expanding from 20 now, to up to 45 by 2031
(including graduate scheme engineers, and doctoral placements).

Building

1,030 to 3,800

Building extended from 1,030m² to 3,800m² by end of 2027.

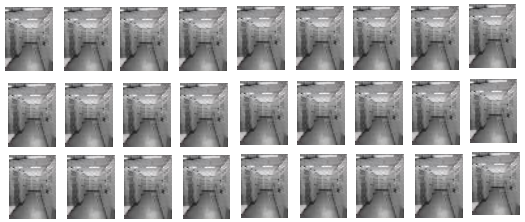
Simulation Infrastructure

Tripling Capacity

Simulation Infrastructure tripling in 2026-27.

Replica Hosting Capacity

4 to 28



Replica hosting capacity expanding from 4 replica rooms to up to 28 (depending on size of the Replicas) by end of 2027.

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HVDC Centre Expansion: Options Considered

Various options were considered:

Option 1: Business As Usual (Do Nothing)

Option 2: Refurbish the existing site

Option 3: Build an extension to the existing site

Option 4: Build a new HVDC Centre in an alternative location

Option 5: Buy/Lease an existing building (& refurbish)

Option 6: Maintain the existing site and create an extension elsewhere (Multi-centre option)

HVDC Centre Expansion: Options Considered

The National HVDC Centre

Benefits/Risks	Do nothing	Refurb existing	Extension	New build	Lease / Refurb	Multi-site
Space for simulation infrastructure and replicas	✗	Very limited	✓	✓	✓	✓
Working area for new staff	✗	✗	✓	✓	✓	✓
No staff relocation (retention risk)	✓	✓	✓	✗	✗	Partial
Minimise disruption/delays to Centre operations	✓	✗	✓	✗	✗	✗
Expand dissemination and training spaces	✗	✗	✓	✓	✓	✓
Facilitate collaboration with partners	✗	✗	✓	✓	✓	✓
Technically feasible	✓	✓	✓	✓	✓	✗

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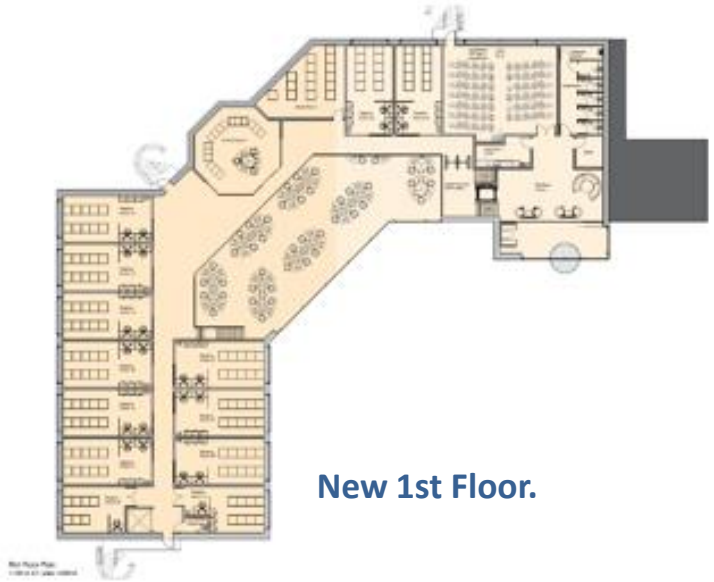
HVDC Centre Expansion: Propose Option

We are therefore planning to build a significant extension on the current HVDC Centre site (more than tripling the size of the Centre) by 2027, along with the associated expansion of: People, Simulation Infrastructure and Replica Hosting Capacity.

New Ground Floor



New 1st Floor.

Site Plan

New Elevation

HVDC Centre Expansion: Questions/Feedback

It is important that our plans are aligned with our stakeholders. We therefore very much appreciate your feedback and any comments or suggestions you have.

Could you please help by completing a form (paper or online), which asks the following questions.

1. Do you see the need for the Centre to expand?
2. Are there any specific requirements you think we should consider when expanding (skills/capabilities, replica hosting requirements, etc.)?
3. Do you have any feedback on our expansion plans (or other options)?
4. Do you believe any additional capabilities beyond this are needed?


The National HVDC Centre

HVDC Centre Expansion: Feedback

Please use this form to provide feedback, comments and suggestions on the HVDC Centre's Plans to expand its: People, Building, Simulation Infrastructure and Replica Hosting Capacity in 2026-27.

Name:	Organisation:
1. Do you see the need for the Centre to expand?	
2. Are there any specific requirements you think we should consider when expanding (skills/capabilities, replica hosting requirements, etc.)?	
3. Do you have any feedback on our expansion plans (or other options)?	
4. Do you believe any additional capabilities beyond this are needed?	
Any other comments? (continue overleaf if required).	

Thank you for your feedback

Please include your name and organisation, so we can follow up if required.

Thank you

For further information, please visit **www.hvdccentre.com** or email: **info@hvdccentre.com**

The National HVDC Centre

Follow our Linkedin page **The National HVDC Centre** for regular updates.