

Pathway to 2030 Network

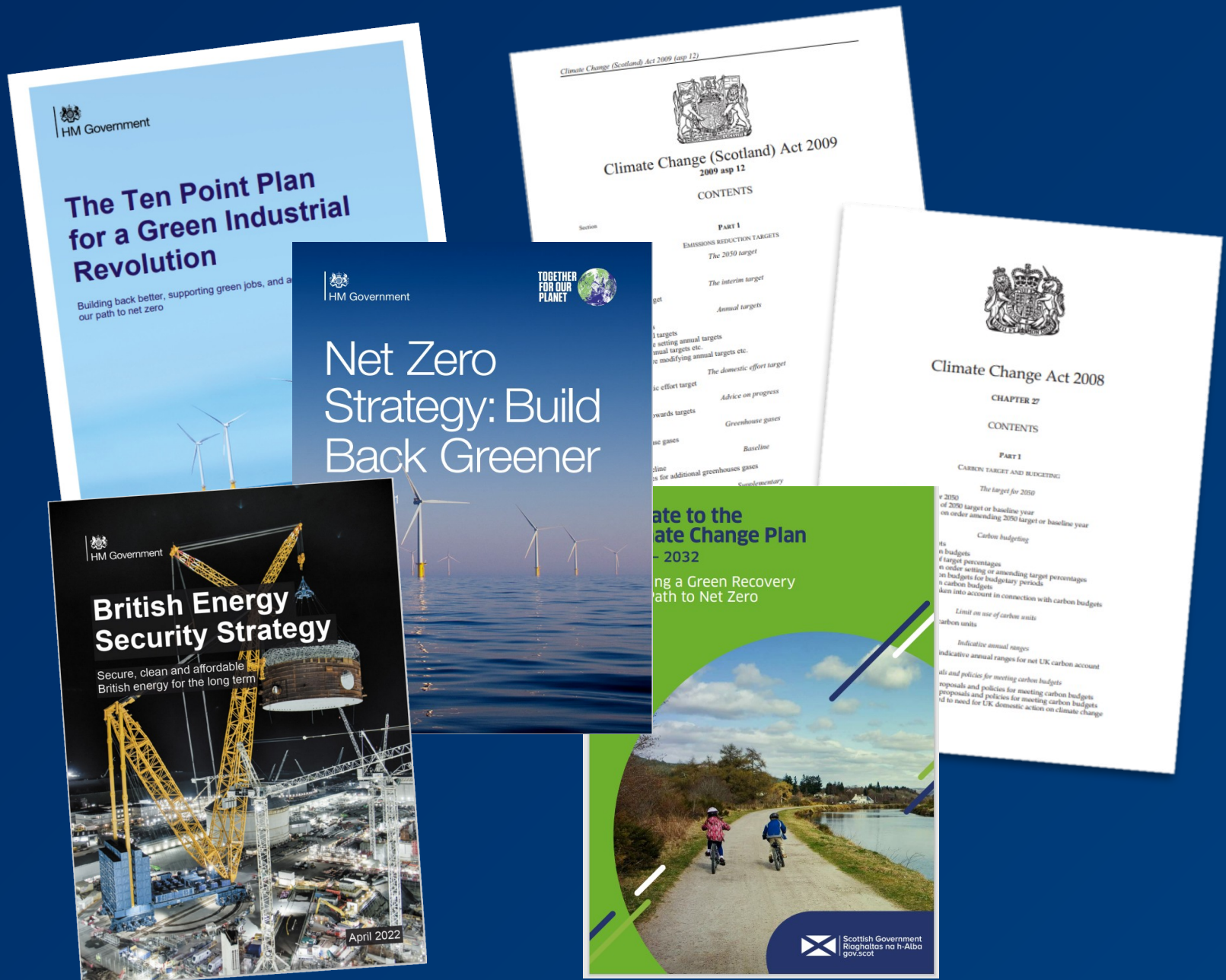
A NETWORK FOR NET ZERO

Rahul Jagdale
Senior Manager- System Planning & Investment

SSEN Transmission

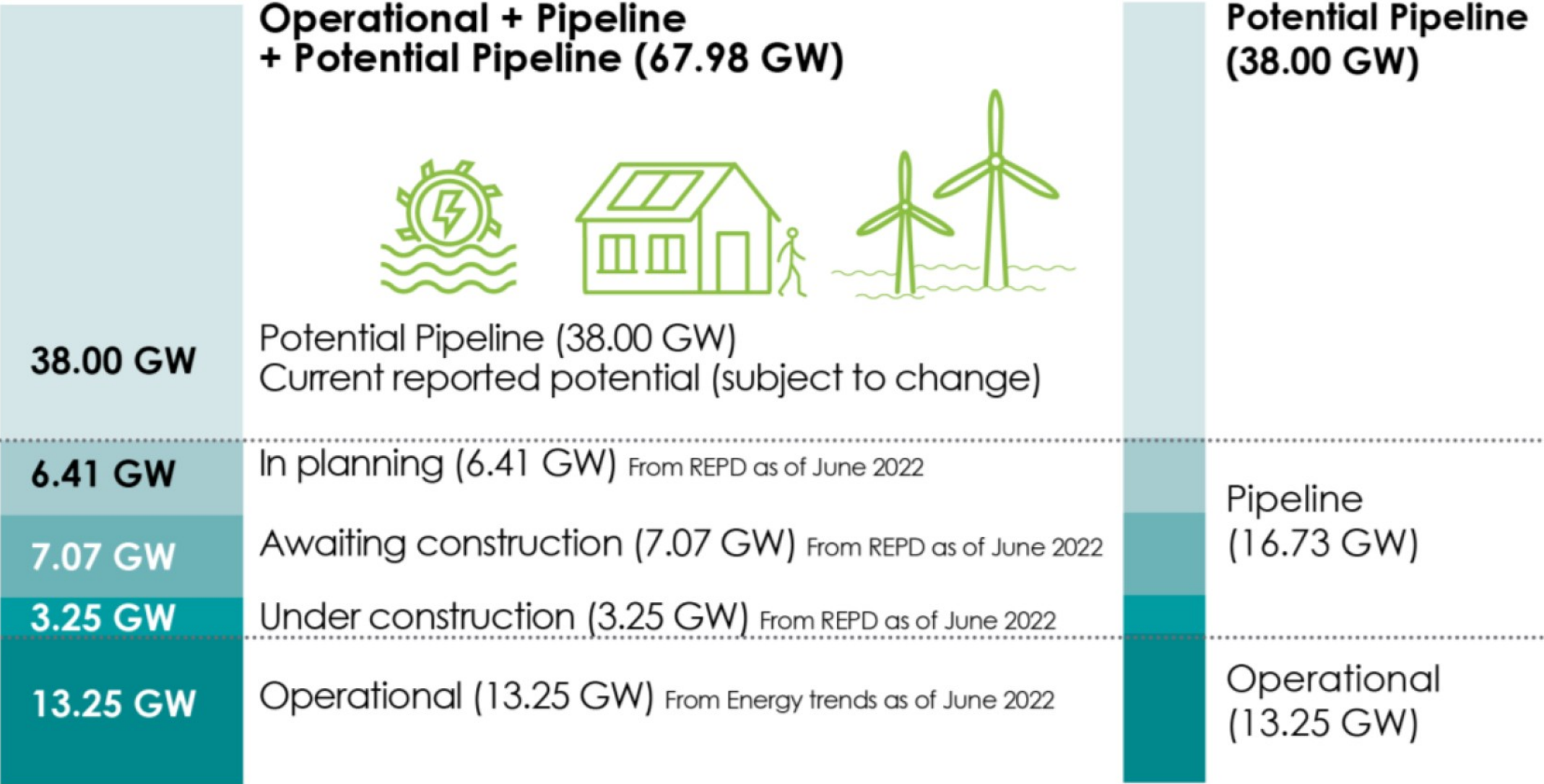
Energy 2023 Scotland- Edinburgh
April 2023

RENEWABLE GENERATION TARGETS AND NET ZERO



- ✓ Scottish Government's Net Zero goal by 2045
- ✓ UK Government's Net Zero by 2050 and Net Zero power by 2035
- ✓ UK Government's 50GW by 2030 offshore wind target
- ✓ Scottish Government's 11GW offshore wind by 2030 target
- ✓ Scottish Government's 8-12GW of onshore wind by 2030 target

SCOTLAND'S RENEWABLE ELECTRICITY CAPACITY



Source: Draft Energy Strategy and Just Transition Plan, Scottish Government, January 2023. Accessed 8 Feb 2023.

Transmission Planning – Overarching Framework

Plan and develop an efficient, co-ordinated and economical system of electricity transmission



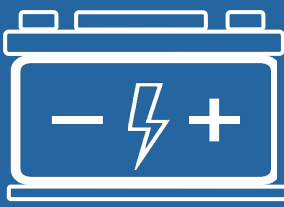
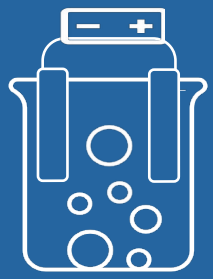
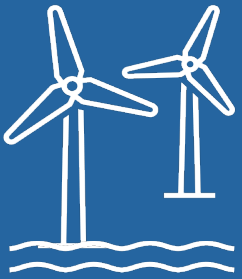
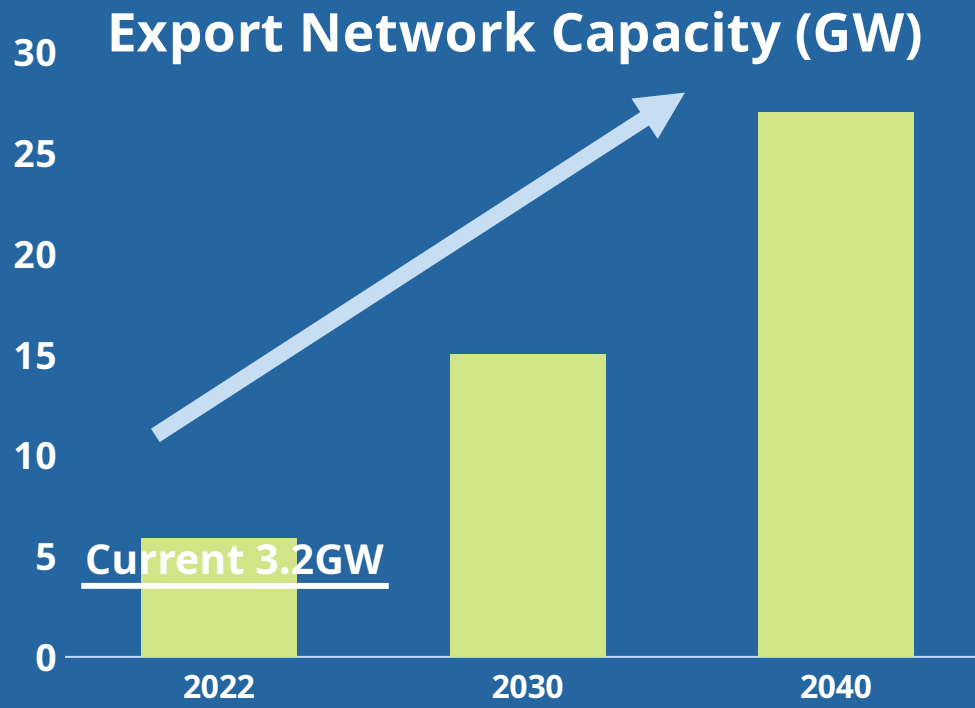
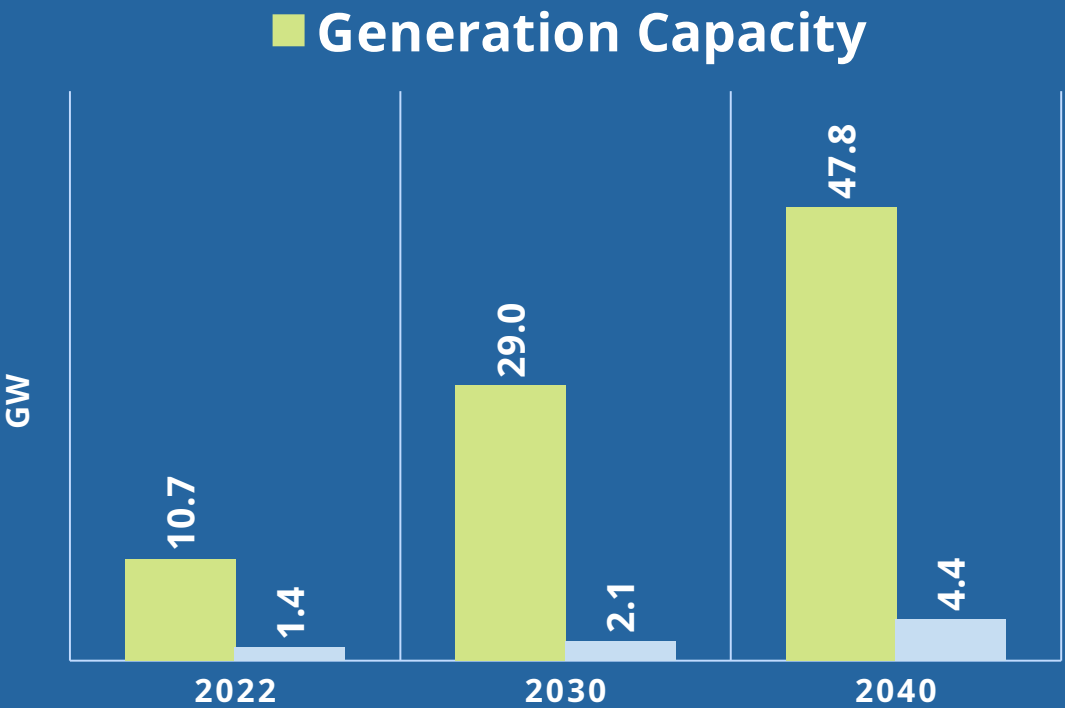
- Electricity Act 1989 Section 9 – General duties of licence holders
 - *...develop and maintain an efficient, co-ordinated and economical system of electricity transmission*
 - *...facilitate competition in the supply and generation of electricity*
- Electricity Transmission Standard Licence Condition D3 – Transmission system security standard and quality of service
 - *“...the licensee shall at all times plan and develop the licensee's transmission system in accordance with the **National Electricity Transmission System Security and Quality of Supply Standard** version [X.X], together with the **STC** or such other standard of planning and operation as the Authority may approve from time to time...”*
- The STC (System Operator Transmission Owner Code)
 - The STC has many procedures which govern TO activities including connection applications, investment planning, network modelling, data exchange, Electricity Ten Year Statement and Network Options Assessment.

WHAT WE HAVE DELIVERED SO FAR (NORTH OF SCOTLAND)

The region produces and exports low carbon electricity, and is home to **just 2% of the UK population.**



SSEN Transmission – Growth Drivers



Need for Acceleration: ASTI & Holistic Network Design (HND)



Some examples of ASTI projects -2030 reinforcement

Beauly- Loch Buidhe 400kV Reinforcement

New 400kV double circuit Beauly-Blackhillock

Beauly-Denny 2nd Circuit Upgrade to 400kV

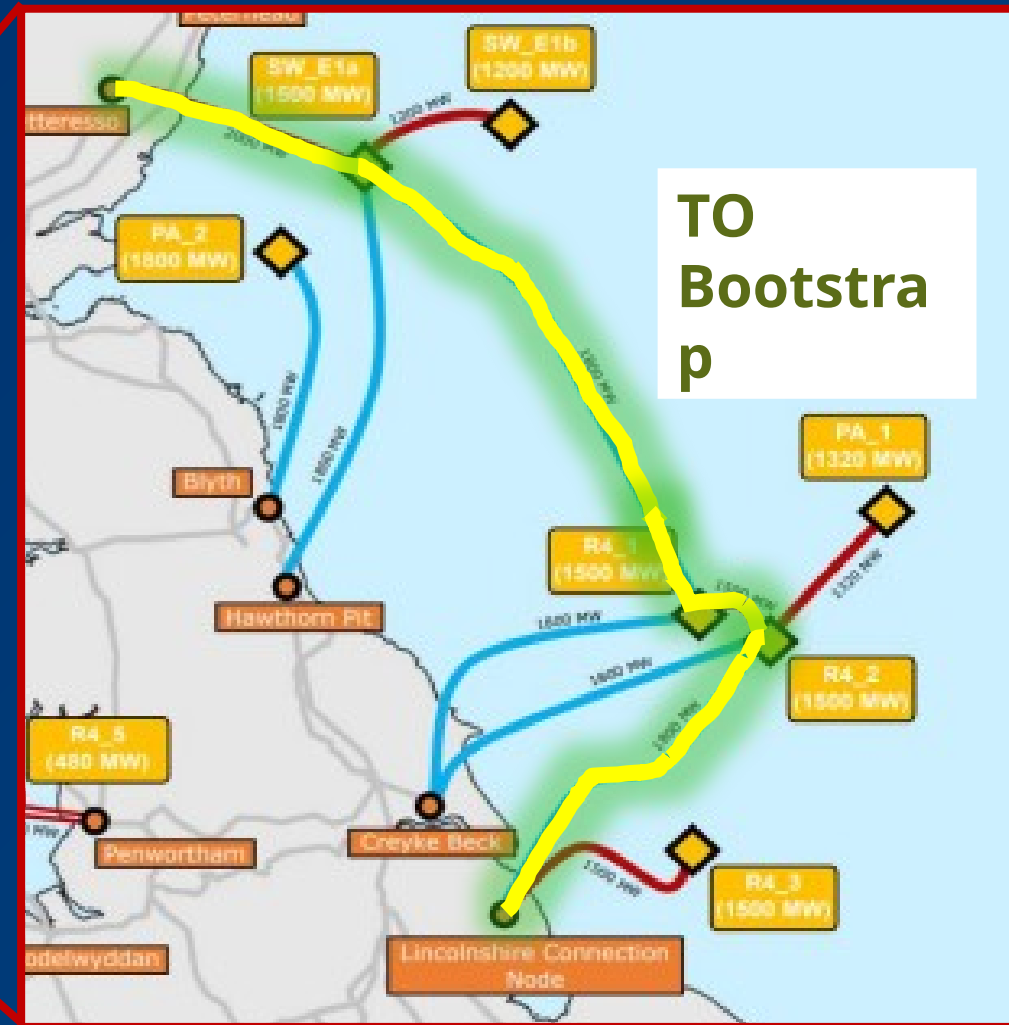
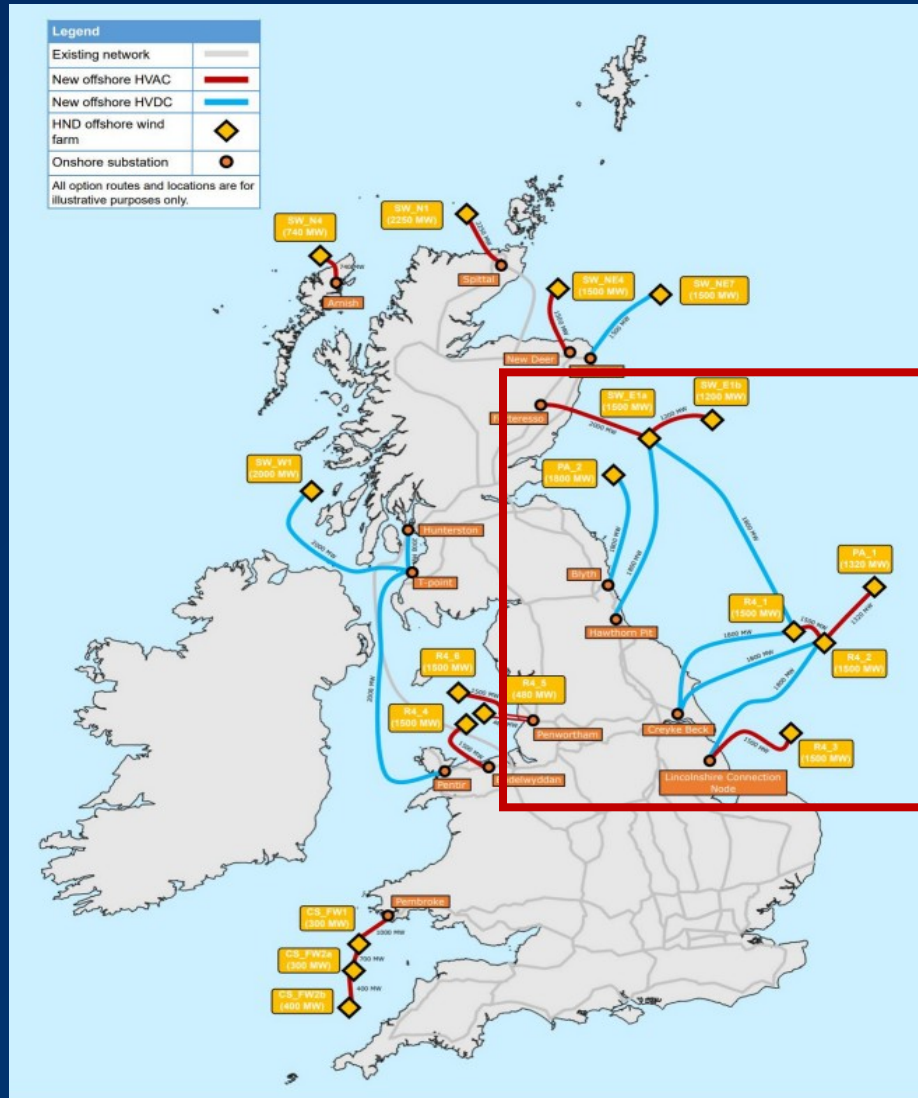
East Coast 400kV Phase II

Spittal to Peterhead HVDC

Peterhead to Drax HVDC (EGL2)

Peterhead to South Humber HVDC (EGL4)

HND Co-ordinated Network

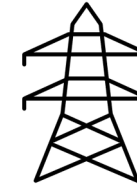


Opportunities

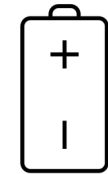
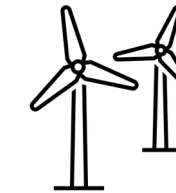
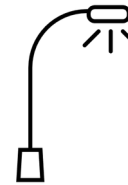
We hope to realise efficiencies by delivering our strategic investments as a programme of works:

- Managing project interdependencies
- Oversight and consistency of programme
- Consistency of technology
- Co-located reinforcement
- Coordinated stakeholder engagement
- Common resources

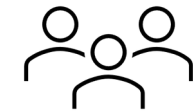
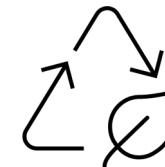
✓ Affordability



✓ Security of Supply



✓ Our Environment and Communities



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Scottish & Southern
Electricity Networks

TRANSMISSION