

Greenlink

INTERCONNECTOR

FACILITATING DECARBONISATION AND BENEFITING IRISH CONSUMERS

Irish Renewable Energy Summit – 31 January 2018

Presenter: Mike O'Neill – CEO, Element Power



Greenlink is Ireland's next interconnector



TECHNICAL PARAMETERS

- 500MW
- HVDC $\pm 320\text{kV}$ - single symmetrical monopole
- Voltage Source Convertors

CABLE ROUTE

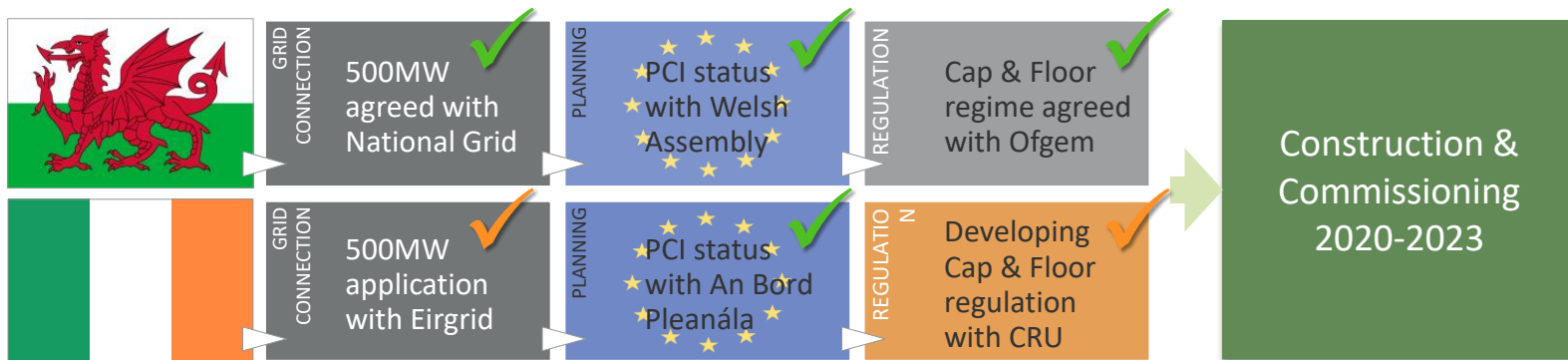
- Great Island sub station - County Wexford
- Pembroke sub station – Wales
- ~170km of HVDC land and marine cable and ~1km of HVAC

PROJECT TIMING

- Regulatory finalisation in 2H 2019
- Construction 2020 - 2023

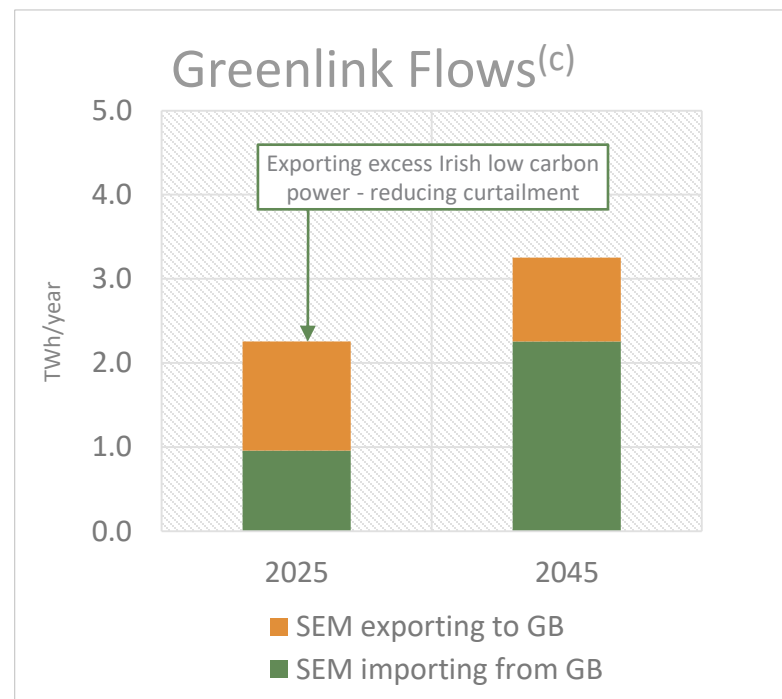
GREENLINK PROJECT STATUS

Greenlink has made material progress to meet its development goals – subject to CRU approval the project can advance to the construction phase



Greenlink acts as an export route for surplus Irish low carbon power

- Greenlink improves integration of Irish wind by reducing curtailment through 2047 by 5,500 GWh^(a)
- This allows wind to capture a higher price in GB.
This value flows through to Irish consumers saving them over €800m^{(b)(c)}
- In comparison Continental interconnection would be predominantly a one-way flow into Ireland.



a) Sum of avoided curtailment between 2023-2047
 b) NPV@3.5%, real 2017 €
 c) Source: Baringa 2017, Greenlink CBA analysis Reference Case

Post Brexit the UK remains a natural stepping stone to connect to Europe's energy markets

In the event of a hard Brexit

- UK and EU are both WTO members
- No tariffs on the trading of interconnector capacity
- ISEM prevails

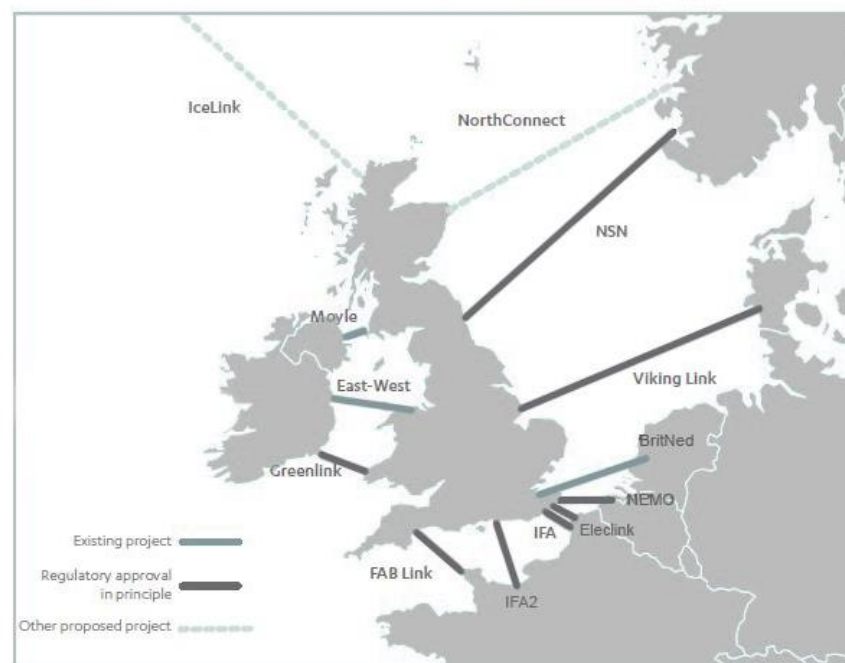
UK continues to support Greenlink

- PCI status
- Proactive and coordinated approach with CRU

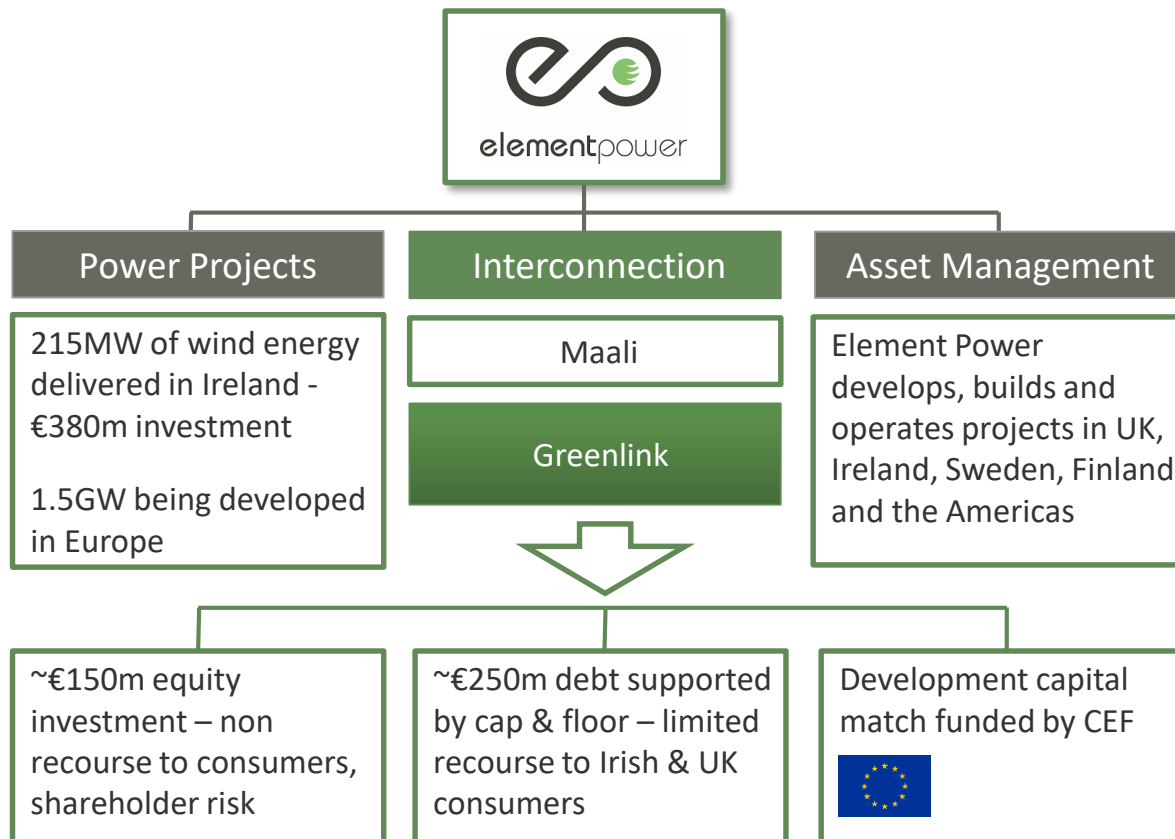
UK is the third largest generator in Europe

- UK 338.6 TWh cf. Ireland 30.4 TWh
- Forecast 10GW of interconnector capacity with continent, Europe and Scandinavia
- A natural link to Europe that avoids excessive capex and lii losses

Existing interconnectors and the future pipeline



A privately sponsored project – limited recourse to consumers



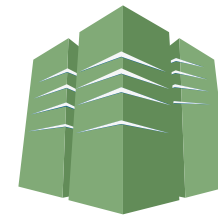
Greenlink is a cost-efficient source of future interconnection for Ireland



250 Irish jobs
during construction



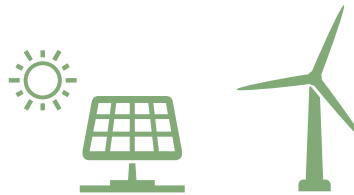
Potential to power
380,000 homes



Enough to power 10
new large data centres



20 permanent
Irish jobs



Savings to consumers of
over €800m over life



€400m of private capital
for Ireland and Wales



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