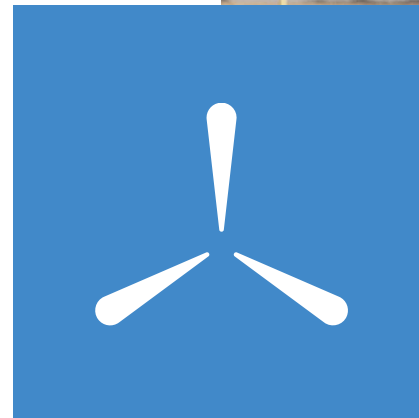





Journey to Plan-led Offshore Wind in Ireland

Louise O'Flanagan
Head of Engineering & Asset
Management

19th April 2024



An aerial photograph of an offshore wind farm. The image shows a large number of wind turbines scattered across a vast expanse of water. The turbines are white with three blades each, and their towers are supported by yellow and black structures. The water is a deep blue-grey color, and the sky is a pale, hazy blue. The perspective is from a high angle, looking down at the turbines.

Climate Action Plan sets out the ambition of a grid to accommodate up to 80% of Ireland's electricity from renewable sources by 2030 and facilitate the development of connecting at 5GW of offshore wind.

Key Enablers for Offshore Wind



New regulatory consenting regime



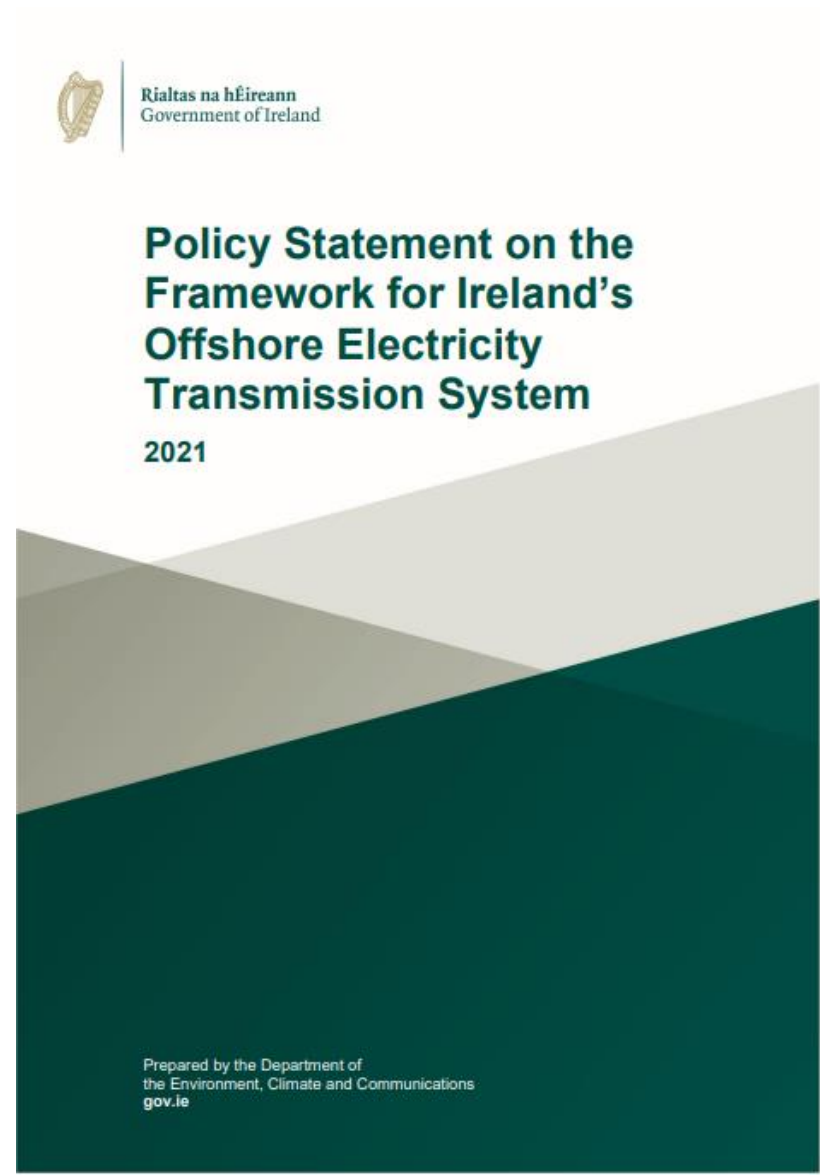
Route to market through scheduled RESS auctions



New framework for developing an offshore transmission system and phased transition

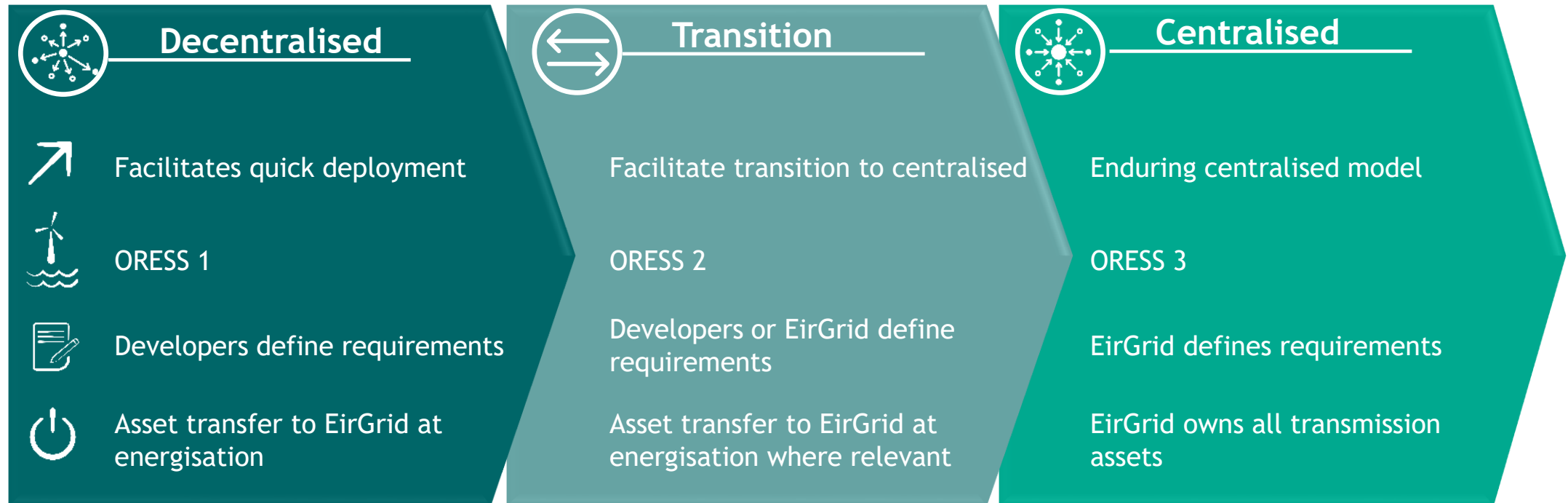


Designation of EirGrid as the system operator and asset owner of Ireland's offshore electricity transmission system

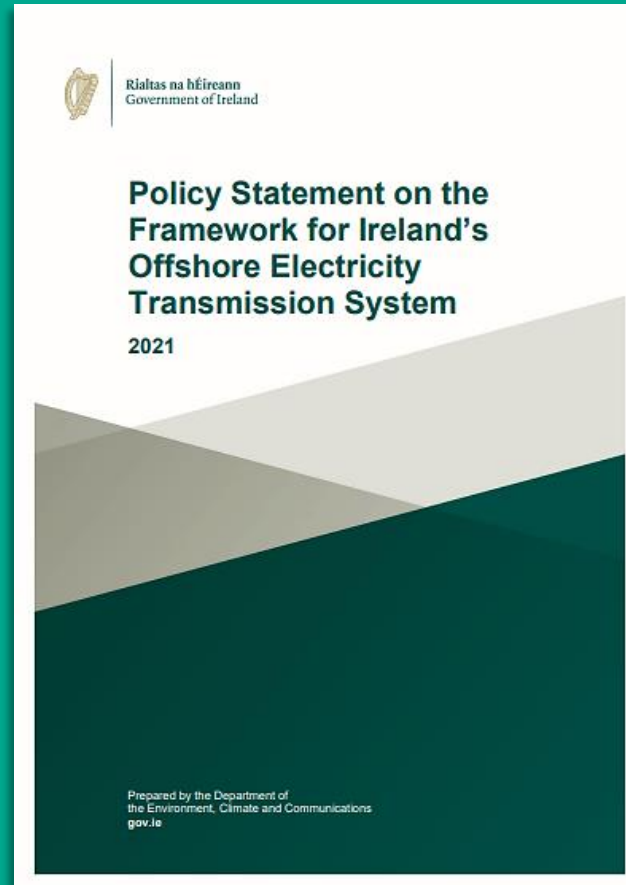
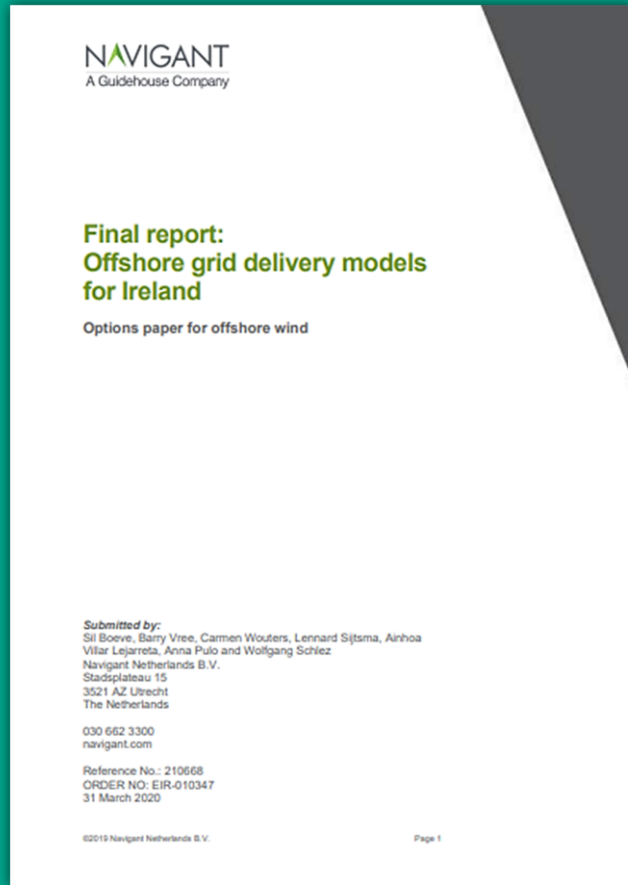


May 2021 Government Policy Statement - Framework for Ireland's Offshore Electricity Transmission System

The framework provides for a phased transition from a decentralised offshore transmission system model to a centralised model over the course of this decade, with ownership of offshore transmission system assets to be assigned to EirGrid, Ireland's existing electricity Transmission System Operator.



Policy Framework



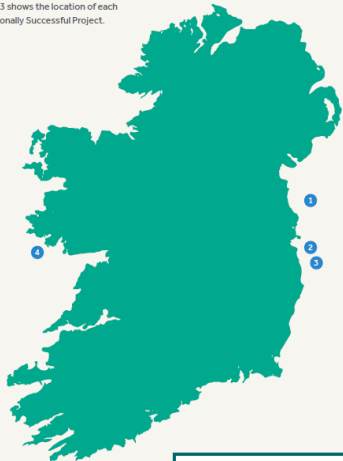
How is Offshore Wind being Developed?

Phase 1 - Developer led 3.1 GW

- Auction held 2023 and four successful projects.
- Pathway for Merchant Projects

Location of ORESS 1 Provisionally Successful Projects

Figure 3 shows the location of each provisionally Successful Project.



Project Name	Output
1. North Irish Sea Array (NISA)	500 MW
2. Dublin Array	824 MW
3. Coolish Wind Park	1,200 MW
4. Scallade Rocks Offshore Wind Farm	450 MW

Figure 3

EirGrid - ORESS 1 Provisional Auction Results, 11 May 2023

Phase 2 - Plan led 900MW (EirGrid)

- South coast - EirGrid develops the grid offshore.
- Private developers then connect to offshore station locations.



Riailtas na hÉireann
Government of Ireland

Accelerating Ireland's Offshore Energy Programme
Policy Statement on the Framework for Phase Two Offshore Wind
March 2023

Phase 3 - Plan led 2 GW

- Floating offshore wind in development by 2030



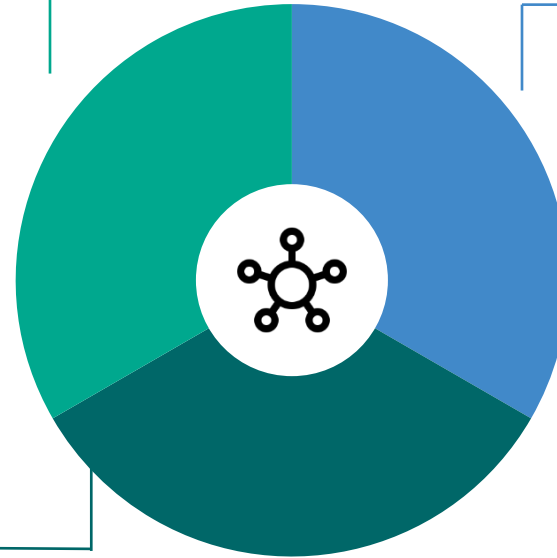
Benefits of a Plan-Led (Centralised) Model

Efficiency

- Coordination of on- and offshore grid
- Optimises infrastructure requirements
- Optimisation of O&M

Public Acceptance

- Coordination of public acceptance
- Reduce overall grid requirements



Technology

- Facilitates future-proofing
- Facilitates interconnection
- Facilitates larger and more distant offshore wind farms
- Supports future Power to Gas projects

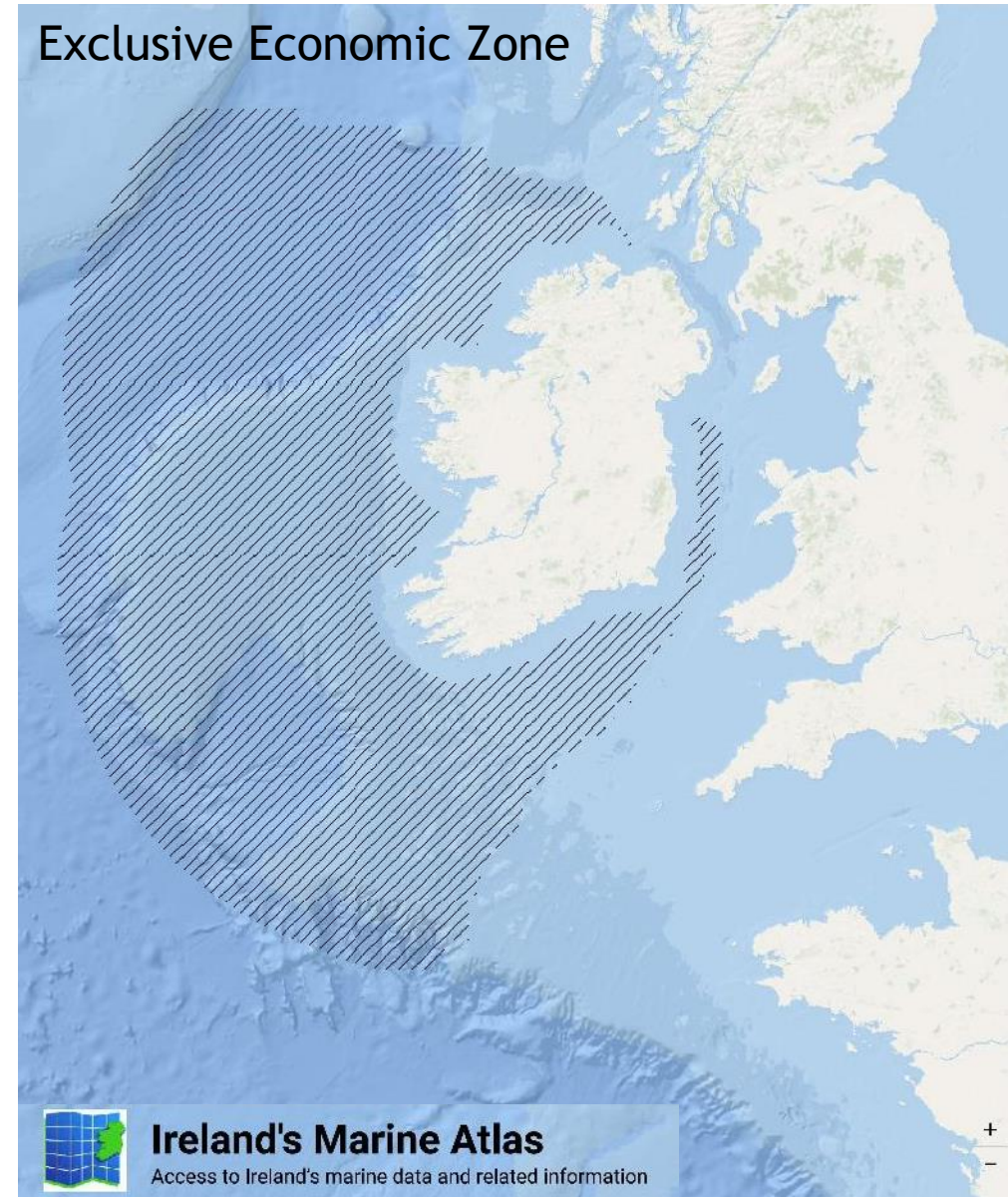
A centralised development model is recognised as generating maximum societal benefits due to natural monopoly efficiencies

Harnessing Ireland's Offshore Renewable Energy Resources

- Ireland's large & relatively unconstrained maritime area
- Potential offshore energy resources available significantly outweigh domestic demand
- Phase 1 & 2 to addresses decarbonisation of domestic energy supply as quickly as possible

Post 2030 - Phase 3 considers an enduring regime:

- Takes 2030 targets as starting point
- Potential for offshore renewable energy generation capacity
- Long-term energy demand scenarios
- Interconnection with other energy markets and working to develop a pan-European electricity grid



Transition in Grid Delivery Models

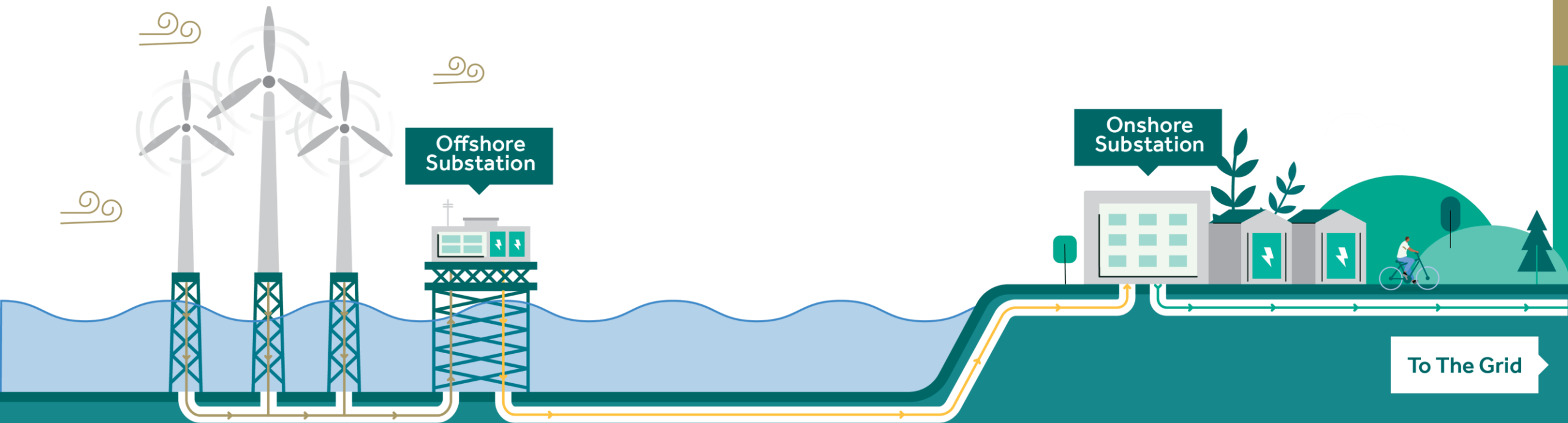
Phase 1 - Developer-Led: responsible for planning, consent, design, finance, procurement, construction and commissioning of transmission infrastructure

Phase 2 - Accelerated transition: EirGrid responsible for planning, consent, design, finance, procurement, construction and commissioning of transmission infrastructure

Wind Farm Developer Owned

EirGrid Owned

ESB Networks Owned



- A connection between the offshore substations and existing substations onshore. This will involve undersea and underground electricity cables.

Thank you

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