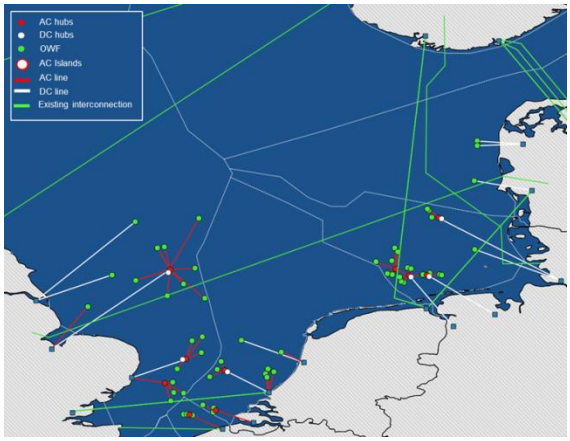
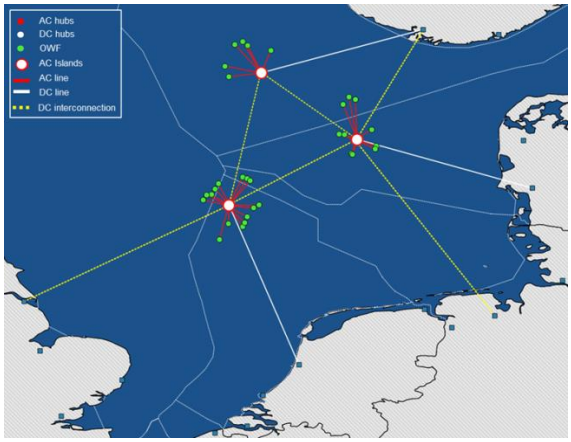
CONCEPTS FOR FUTURE OFFSHORE GRID TOPOLOGIES

A. Business-as-Usual



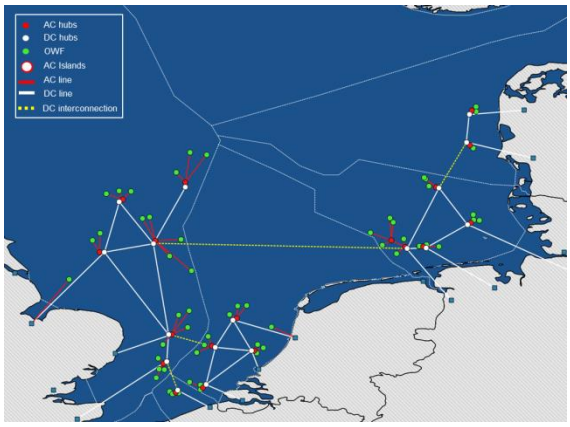
- Regulatory challenge: none
- OWF power evacuated exclusively to the owner's system
- No combination of grid connection of offshore wind with interconnectors
- Low flexibility for the evacuation of wind power. Trading will happen only through point-to-point interconnection between countries

B. Centralized wind power AC hubs



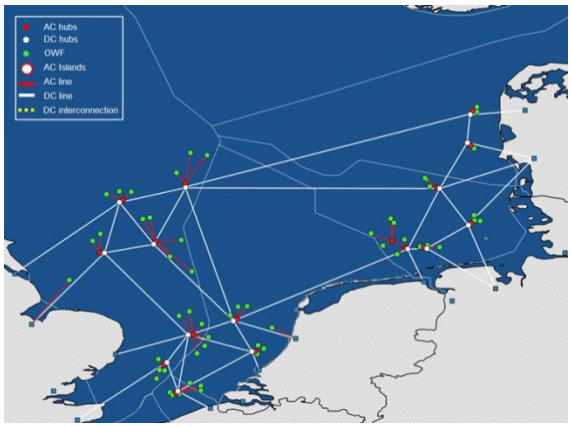
- Regulatory challenge: Some OWF connected to the islands belongs to other countries. Each country keeps a direct or semi-direct access to its own OWF
- DC interconnections can be operated as point-to-point interconnections.
- Large DC meshes to provide alternative routes for evacuating bulk wind generation

C. Distributed hubs – National policy



- Regulatory challenge: limited
- Strongly meshed national offshore grid, weakly interconnected amongst each other
- DC interconnections might be operated as point-to-point interconnections.
- Offshore generation is meant to be evacuated mostly to the owner country's system.
- Flexibility for the evacuation of wind power, but limited to a national level.

D. Distributed hubs – EU policy.



- Regulatory challenges: a common regulatory framework must be agreed on.
- Strongly meshed international offshore grid
- High operational complexity
- Highest level of flexibility for the evacuation of wind power generation

PROMOTioN – Progress on Meshed HVDC Offshore Transmission Networks

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