



Navigating to 2050

A safe and sustainable maritime future

#NavigatingTo2050



Michael Robinson

Port Director

Belfast Harbour, Northern Ireland



Commissioners of
IRISH LIGHTS

Navigation
and Maritime
Services

The Role of Ports in supporting the Energy and Sustainability Transition

**Michael Robinson
Port Director**

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Strategic Vision

- Our 'Port for Everyone' **Vision** is to be a world leading **regional port** and **key economic hub**, creating an **iconic waterfront** for the city
- Delivering **economic and social value** is at the heart of our **Trust Port Purpose**, which is:
 - To serve as a maritime gateway for trade, by operating a sustainable and world leading regional Port and investing to develop the Harbour Estate as a socially responsible key economic hub



A world-leading regional port



A green port



A key economic hub



A smart port



An iconic waterfront



A green port

Investing in a Clean, Green Port

- Core to our ambitious sustainability strategy are stretching environmental targets, with delivery measured through our **2021 Prosperity Agreement** with the Northern Ireland Environment Agency. This includes our pledge to:
 - reduce **carbon emissions to net zero by 2030**,
 - achieve **zero waste to landfill**,
 - improve **air and water quality** and enhance both **land and marine biodiversity**
 - and enhance **active and sustainable travel solutions** across our Estate





A smart port

Investing in technology and innovation

- Introducing Smart technologies to accelerate **strategic delivery**, improve **energy** and **resource efficiency** and enhance **safety**
- Delivering through **partnership**, for example, Sustainable Maritime Innovation through the Belfast Maritime Consortium





ESG & the Trust Port Model

- Our **Trust Port** status and strong financial performance gives us a firm economic base to **invest in regeneration and future growth**
- **Sustainability** and playing our role in the energy transition and is at the core of our goal to be a **World Leading Regional Port**
- We work collaboratively with city partners to turn strategy into action and to deliver positive **social and economic impact** for the region
- Our diverse portfolio and **Port for Everyone vision**, is building a gateway to opportunity for a wide group of stakeholders





Ports & Energy – A Long Term Relationship

- Ports have historically been a hub for energy importation and storage, particularly in Ireland, given its relative lack of indigenous resources
- Substantial port lands are used for storage facilities of fossil fuels providing ports with significant revenue streams, for which ports will need to seek replacement opportunities
- Ports have a pivotal role to play in the transition by enabling the new whilst accommodating the phasing out of the old
- As fossil fuels are phased out, opportunities exist to repurpose these lands and facilities for zero or low carbon fuels and become energy hubs for manufacturing, land-based transportation, and local population energy supply.

Ports – challenges and opportunities

- An 18-fold increase in renewable capacities of all zero-emission fuels is needed to meet COP-26 goals; 50% of which will be carried by ships.
- In a world of zero / low carbon fuels, more bunkering infrastructure will be required in ports presenting opportunity but also safety and security risks
- Relative lack of availability of zero/low carbon power detracts from ports' ability to decarbonise operations and introduce onshore power for vessels.
- Lack of regulation and funding to close the gap between the cost production of hydrocarbons and zero/low carbon fuels increases risks for ports for investing

Ports – What to do?

- Decarbonise port operations to the greatest extent possible (HVO, green electricity, self generation)
- Engage in wider dialogue with all stakeholders in the maritime supply chain to assess what is feasible
- Seek out partner ports and supply chain partners to develop green shipping corridors
- Seek out opportunities in the new zero / low carbon economy such as offshore wind, hydrogen production, heat, CO₂



Opportunities – Belfast, A Case Study for Offshore Wind

- Following H&W Belfast's early success in the sector in the 2000's, Belfast Harbour saw the opportunity in 2011 to develop state of the art facilities for the construction of offshore wind farms in the Irish Sea
- Significant capital investment in purpose built facilities for Orsted, the world leader in offshore wind, created a facility which is unique amongst Irish Sea ports
- Delivered over 2/3^{rds} of the UK's offshore wind capacity between 2013 and 2018
- Ready to deliver for Irish Sea windfarm construction over the next decade and beyond



D1 Offshore Wind Terminal

- World class facility designed collaboratively with Orsted and Siemens Wind Power boasting a 480m long heavy duty quay with over 200,000 sq m of hinterland for component storage
- Estimated cost to build today of >£150m.
- Provides unique capability on the island to support development of offshore wind



A world-leading regional port



D1 Offshore Wind Terminal

- Ports may seek to partner with offshore wind developers or Tier 1 supply chain partners to provide port facilities for offshore wind construction
- Short term nature of construction activity makes commerciality challenging, but long term vision required
- Longer term opportunities exist for O&M activity in ports with skilled local employment



A green port



D1 Offshore Wind Terminal

- Further opportunities exist for ports and the wider supply chain to benefit from the energy transition which is required to help deal with the climate emergency
- Ports like Belfast Harbour, have the facilities, development sites, the track record and the ambition to be pivotal in the energy revolution





Conclusions

- The energy transition is increasingly complex with geopolitical events buffeting the path to net zero
- Challenges exist for ports (and shipowners) in selecting the fuels of the future without clear guidance / regulation on fuel adoption
- Ports have a significant opportunity to shape and influence the future of energy production and the supply chain, stretching far beyond a port decarbonising its own operations
- Significant revenue streams are under threat for ports but through dialogue and collaboration with supply chain partners, opportunities exist to develop and grow new revenue streams which can help fund the significant infrastructure investments needed to bring about the reality of decarbonisation



GATEWAY TO OPPORTUNITY



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