



2023 GROUP UPDATE

14th September 2023



**OPERATION
ZERO**

Working together to make
zero-emission offshore wind
operations a reality

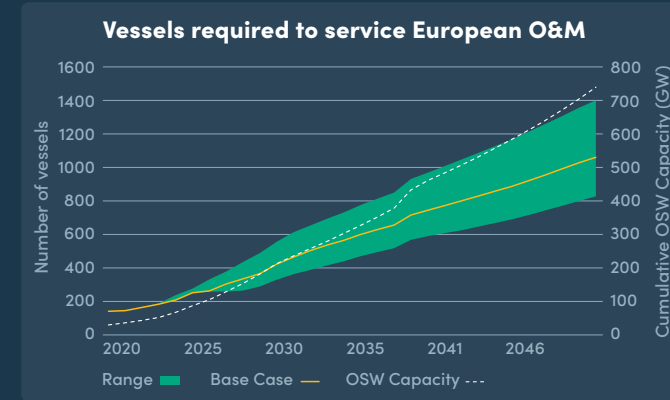
Aim: There is broad support for an accelerated transition to clean maritime operations in the UK and neighbouring North Sea offshore wind nations. However, although much of the technology exists to deliver this vision, many barriers remain.

‘Operation Zero aims to facilitate the collaboration needed to overcome these barriers, with a view to making zero-emission operations and maintenance vessels a reality by 2025.’

Prepared by Operation Zero Steering Board & Working Groups:



MARKET CONTEXT



Offshore wind is still a rapidly expanding industry; ORE Catapult estimates indicate up to 1400 vessels, of which 1200 would be newbuild, are required in European Waters by 2050.

Offshore wind deployment is heavily dependent on the maritime sector. Supporting the UK maritime sector to up-scale to meet this challenge can help the UK meet installed capacity targets.

The market opportunity for delivery of clean vessels is clear. There is good evidence of a strong UK supply chain in the CTV market and in port recharging and bunkering infrastructure supply, which we should aim to support and strengthen to ensure growth in line with expansion of the sector. The SOV market has grown year-on-year since 2016 and remains a key potential development opportunity for the UK.

Advancing maturity of clean maritime technology is evident. In offshore wind there are a range of technologies, including battery and hydrogen solutions coming to market, typically as hybrid solutions.

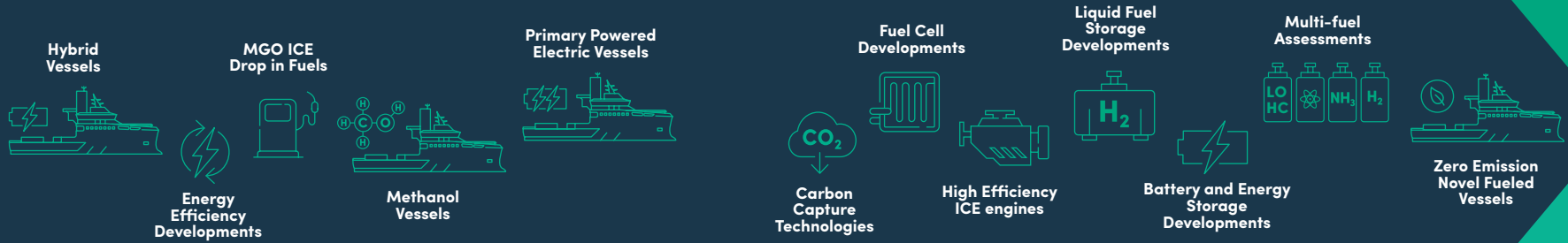
However, there are still significant commercial barriers to rapid adoption of technology. Operation Zero will consider the mechanisms to promote accelerated uptake of alternative fuels.



Offshore Wind Operations Technology Roadmap

The Vision: Accelerating delivery of Offshore Wind Operations transition to Net Zero before 2050

Low and Zero Emission SOVs



Low and Zero Emission CTVs



Ports and Infrastructure



Production of green fuels from renewables



KEY MARKET CHALLENGES

Lack of supply chain collaboration

→ Operation Zero intervention:

The formation of the Operation Zero "Implementation" groups, the Steering Board and three Working Groups, is designed to enable open dialogue between the supply chain and users.

Lack of pathway clarity

→ Operation Zero intervention:

Creation of the roadmap included in this document and further refinement of this into horizon documents in Operation Zero will outline technology priorities for industry and enable supply chain readiness.

Cost differential between conventional and alternative fuels

→ Operation Zero intervention:

Operation Zero Working Groups are reviewing mechanisms for uptake of green fuels, including non price factors in CfDs, the UK ETS Scheme and other carbon pricing to recommend potential solutions to accelerate the transition to alternative fuels. The principle of this will be to consider how mechanisms which result in a higher cost of carbon can create funding for new technology development and implementation to reduce the cost of alternative fuels.

High cost of CAPEX for new technologies

→ Operation Zero intervention:

Operation Zero will build a commercial case for continued UK SHORE funding for the sector from 2025 onwards, considering how mechanisms like the ZEV fund could support accelerated roll out of technology.

Development of Standards and Regulations for new fuels

→ Operation Zero intervention:

The Operation Zero group is actively working with the MCA and registered organisations to identify opportunities for shared learning and accelerated transition to a rules-based approach for new fuels.

Significant skills gap for alternate fuels

→ Operation Zero intervention:

As part of ongoing roadmap process, Operation Zero Working Groups will document the key skills gaps identified by industry, to aid the development of skills interventions in line with technology roll out.



Operation Zero Steering Group



Low and Zero Emission SOV Working Group



Low and Zero Emission CTV Working Group



Ports and Infrastructure Working Group



2023/24 Group Meetings

Steering Group // October // January // April

Working Groups // September // December // March

To join the group please email:
charlotte.stead@dft.gov.uk

Emails must be sent by someone within organisation with delegated authority to enroll in Operation Zero and should include indication of working group(s) of interest.





Prepared by ORE Catapult on behalf of Operation Zero members

**London International Shipping Week (LISW)
Clean Maritime Day 14th Sept 2023**