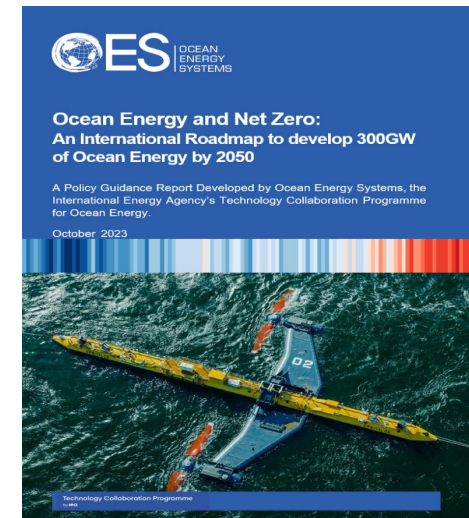
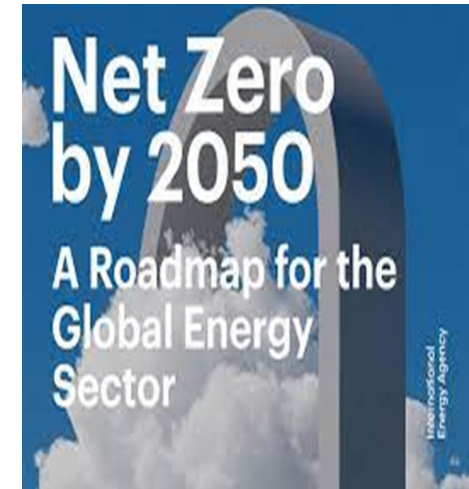


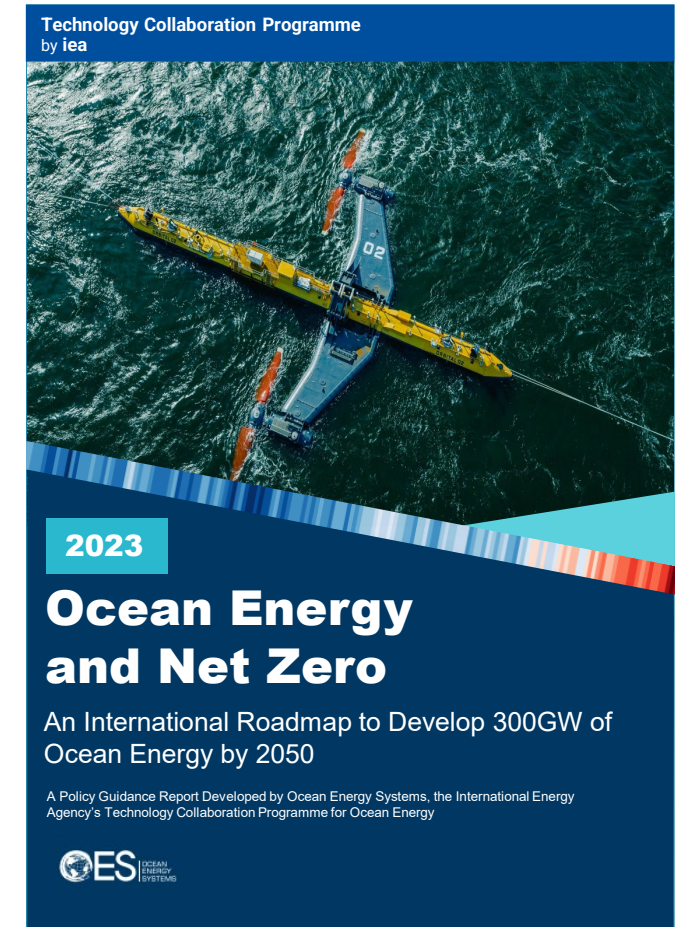
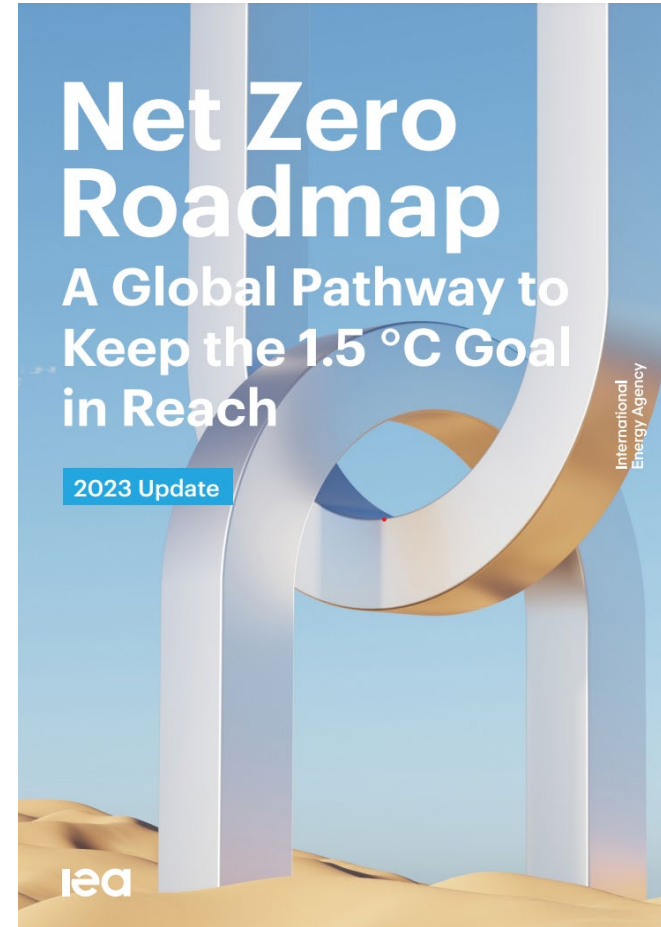
OCEAN ENERGY: A Net Zero Roadmap for 2050

Henry Jeffrey



Ocean Energy at an International Level

- The IEA net zero roadmap update published in September 2023
- The IEA-OES Roadmap is intended to present a pathway through which ocean energy technology can contribute to achieving Net Zero



IEA-OES Roadmap Targets

Sector Targets

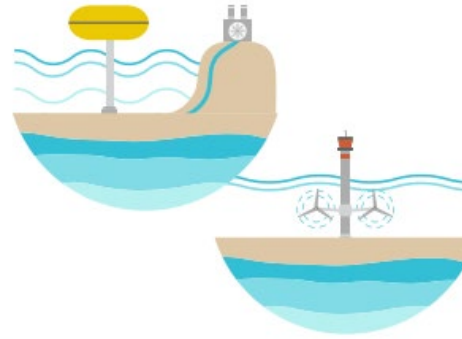
1. Installed Capacity (GW)

2. Direct Jobs

3. Investment in 2050 year/Gross
Value Added (GVA US\$)

4. Carbon Savings (Tonnes of CO₂)

300GW of Ocean Energy



680,000 Jobs



\$340 Billion in Gross
Value Added

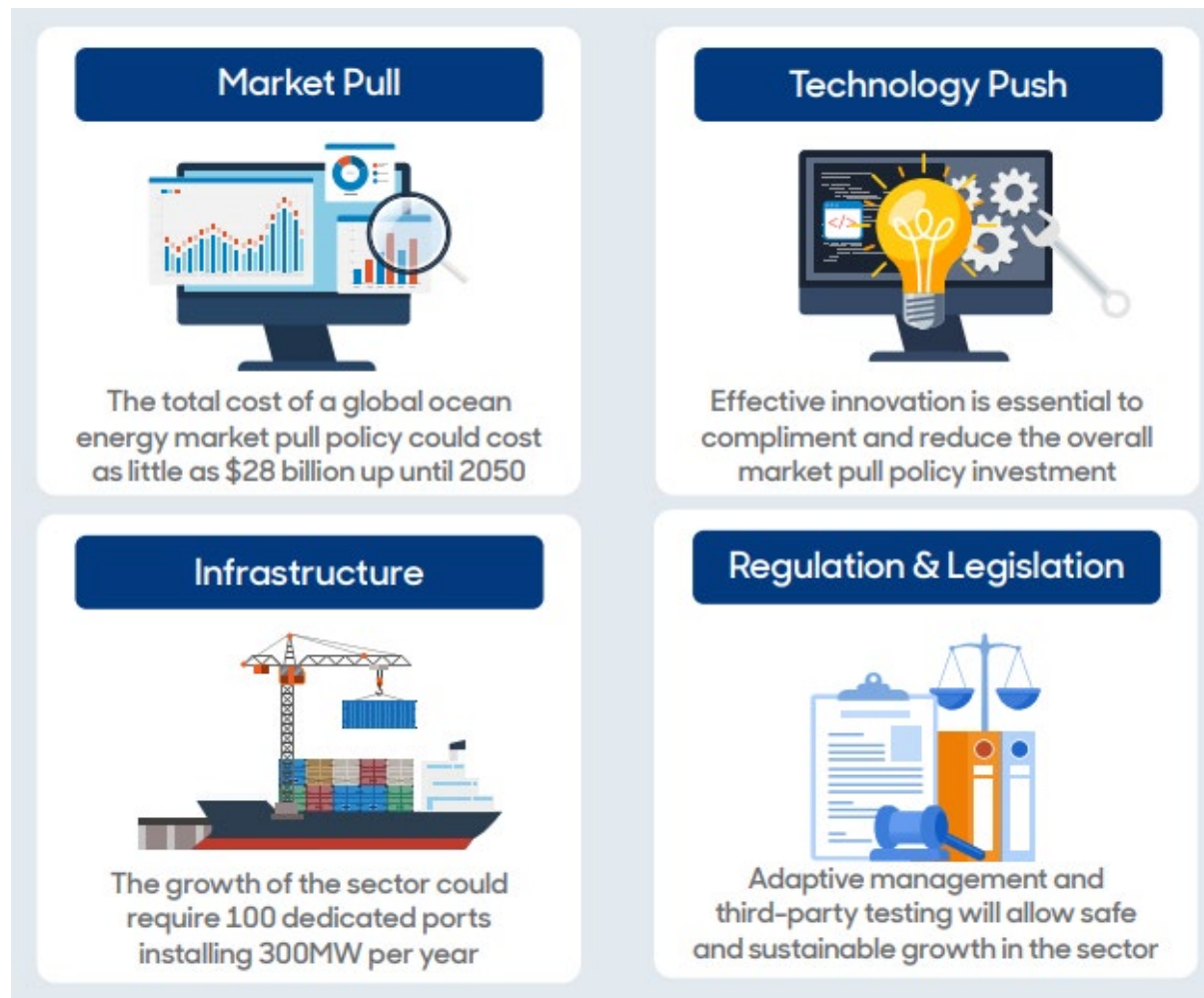


A 500 Million Tonne Reduction
in Carbon Emissions



Policy Action Areas

- **Market pull mechanisms to fund deployment**
- **Technology Research & Innovation programmes**
- **Infrastructure – Ports and harbours**
- **Regulation and legislation**



“Market pull support is the foundation of a comprehensive policy plan”

- *Led at a country-by-country level, the immediate application of a long-term and sustained market pull policy mechanism is key to strengthening and accelerating deployments in the ocean energy sector*

“Accelerated Research and innovation is key”

- *A well-funded and comprehensive technology push policy programme, actively pursuing international collaboration, is vital to ensuring that technological innovation occurs at a significant rate and helps to lower the overall investment required to provide a long-term market support mechanism*

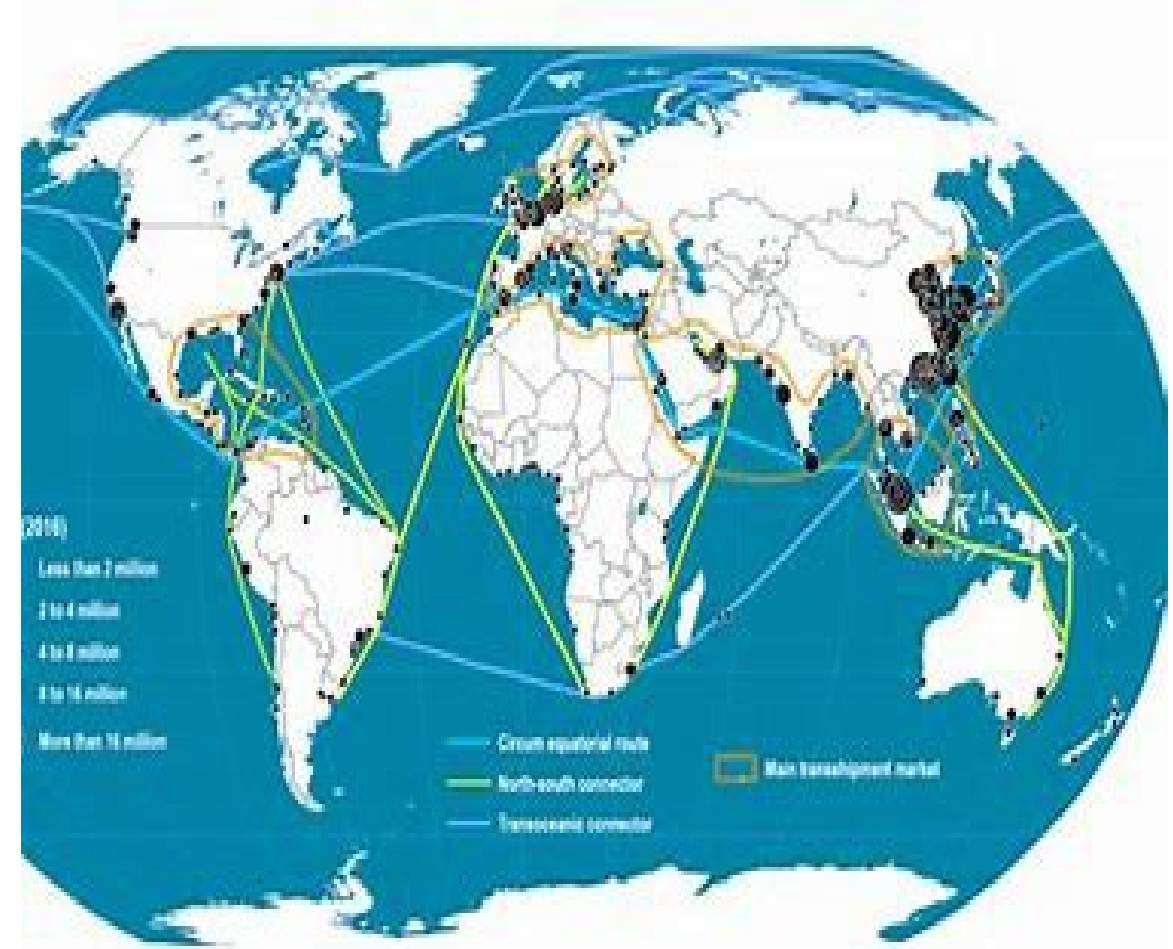


Infrastructure Policy Action

- **Case Study: 300MW/Year Future Port**
- **100 Ports Globally**

“A proactive approach to infrastructure development is required”

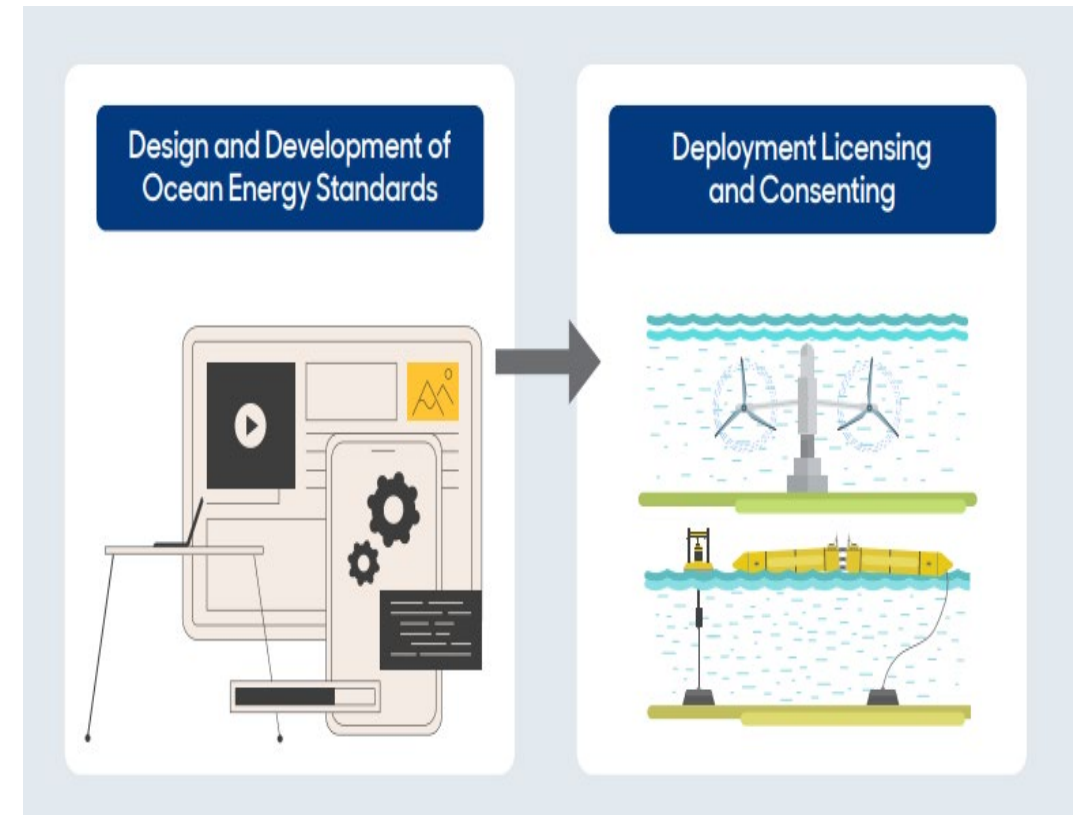
- *While existing infrastructure is well-positioned to handle the short-term requirements of the sector, the rapid expected growth will require large-scale global infrastructure development projects to begin immediately*



Regulation & Legislation : Policy Actions

“The regulatory and legislative framework should help, not hinder”

- The ocean energy sector should be underpinned by a robust and efficient regulatory and legislative framework that provides the levels of support required to ensure that sector growth happens in line with forecasted timelines***



Summary: Policy Recommendations

Market Pull



The total cost of a global ocean energy market pull policy could cost as little as \$28 billion up until 2050

Market pull support is the foundation of a comprehensive policy plan

- Led at a country-by-country level, the immediate application of a long-term and sustained market pull policy mechanism is key

Technology Push



Effective innovation is essential to complement and reduce the overall market pull policy investment

Accelerated Research innovation is key

- A well-funded and comprehensive technology push policy programme, actively pursuing international collaboration

Infrastructure



The growth of the sector could require 100 dedicated ports installing 300MW per year

A proactive approach to infrastructure development is required

- Sector growth will require large-scale global infrastructure development projects to begin immediately

Regulation & Legislation



Adaptive management and third-party testing will allow safe and sustainable growth in the sector

The regulatory and legislative framework should help, not hinder

OCEAN ENERGY: A Net Zero Roadmap for 2050

