Electric Maritime Vehicle

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Description

**Maritime modes of transport such as ferries, private boats, cargo ships etc. that use electricity as their only source of power. These modes are powered using huge battery packs and pure-electric propulsion*

Electric maritime vehicles are environment-friendly and can also greatly decrease operational costs. Increase in battery capacity and charging station accessibility will be increase the attractiveness of electric maritime vehicles.

1. Expected impact
   - Reduction in carbon emissions as electric motors replace combustion engines *(can potentially cut emissions to up to ~95%)*
   - Improved affordability with reduction in fuel and maintenance costs and potential reduction in upfront cost
   - Significant reduction in noise pollution
   - Increased safety – no combustible fuels on-board
   - High electricity demand might put pressure on existing power infrastructure
   - Charging infrastructure might not be available at every destination
   - Cost of electricity – high-horsepower motors (with low load factor) can consume high levels of electricity

2. Technology requirements

Improved battery technologies, infrastructure capacity and charging points.

3. Regulatory requirements
   - Regulations for construction, maintenance and safety of electricity supply and charging stations
   - Regulations for manufacturing and disposal of batteries

4. Investment requirements

Infrastructure investment is relatively low – includes cost of expanding existing electricity grid locally to the port mooring, cost of transformer (~17.5k USD without installation costs), cabling, installation

Tags

Electric maritime vehicle **Electric vehicle** **Future mobility** **maritime**

STEEP

- Technological

Links

TRENDS

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Rating criterion	04.06.2020
Importance	