

## UK Chamber of Shipping's Position on Shore Power



Shore power involves ships connecting to land-side electricity infrastructure while at berth to provide power. Sufficient shore power can prevent the need for running auxiliary engines and can also be used to charge batteries for electric propulsion systems. The use of shore power in ports can contribute to a substantial and quick cut in local air pollution and noise and lower greenhouse gas emissions. The technology has a major advantage of being available now as shore power has been a proven global technology for 20 years, but there has been slow uptake due to the unavailability of charging infrastructure. Shore power is also considered a long-term solution due to the dual role it can play in charging battery-powered short-sea vessels. Other European countries have been the first movers in providing high voltage port connections since 2000. Unfortunately, the UK has been slow to recognise and invest in shore power infrastructure, with only two ports<sup>1</sup> that provide shore power to vessels in port on a commercial basis.

Given the UK's commitment to net-zero greenhouse gas (GHG) emissions by 2050, the IMO GHG Strategy and the EU's Fit for 55 policy, the UK Chamber of Shipping believes that electrification will play an important role in the decarbonisation of the industry and presents major opportunities in all shipping segments to reduce their at berth emissions, although the pace and extent of change will differ. Therefore, the Chamber supports that the UK Government shall develop a national framework to accelerate action and ensure fast and widespread adoption of shore power infrastructure and operation in the UK ports latest by 2030.

### Key Principles

With the present position paper, the UK Chamber of Shipping outlines the key principles that should guide the UK Government's framework to help remove the barriers around the lack of port infrastructure and the uptake of shore power technology from ships.

1. **Goal-Based Approach:** The framework to address emissions at berth should be guided by goal-based and respect the principle of technological neutrality.
2. **Air Pollution / Climate Change co-benefits:** Air pollutants and GHG emissions both arise from broadly the same source. Although separate policy frameworks have evolved to limit air pollution and climate change, it is essential that the emission's at berth framework develops a strong linkage between these two policy goals to deliver them cost-effectively. Subsequently, when looking at the emissions at berth framework, a comprehensive approach to limiting these emissions must be set and expressed in terms of CO<sub>2</sub> equivalent, NO<sub>x</sub> and SO<sub>x</sub>.
3. **Prioritise high impact sectors:** The framework should initially target sectors with predictable port calls and the highest achievable impact on reducing emissions at berth. Sectors such as containerships, passenger vessels, tugs and offshore vessels

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<sup>1</sup> These are the port of Southampton and the Orkney Island's project that aims to provide shore power at Stromness for MV Hamnavoe operated by Northlink.

that spend on average longer time alongside a port could be included in the initial scope.

4. **Availability of charging infrastructure:** A mandate for shore power on ships must be accompanied by a mandate for the availability of charging infrastructure. This entails that it is also crucial to establish clear mandatory targets for ports. Government should also review and amend the port and electricity infrastructure framework to remove regulatory and planning permission barriers to facilitate the expansion of shore power in UK ports.
5. **Emission berth standards' compliance fee:** Ships and ports under the scope of the framework that fail to comply with the requirements should pay a fee as an alternative form of compliance to incentivise parties to accelerate the switch to the use of net-zero-emission energy options at berth. The fee should be imposed on a port call basis and calculated based on missed emission reduction goals. Alternative aggregated compliance fee options might be considered for ships with multiple port calls during a compliance period. No fee should be imposed on ships with shore power capabilities if the port charging infrastructure is unavailable, is not adequate or use net-zero emission fuels.
6. **Establishment of a GHG Fund:** Funds generated from the payment of the compliance fee approach shall be allocated to a GHG fund. All funds collected shall be reinvested in the industry to support the deployment of shore power and zero-emission technologies on existing ships and port infrastructure.
7. **Public Funding:** Similar to support provided to other transport sectors, the Government should invest alongside the private sector in businesses or projects to build green port infrastructure to catalyse the rollout of shore power charging infrastructure and other net-zero emission options.
8. **Exemption of electricity tax:** It is quite clear that the financial justifications for investing in shore power technology and infrastructure are challenging. Currently, the electricity produced on board from the combustion of marine fuels is duty-free. However, when ships have to plug-in ports and use shore power, they would have to pay a tax on electricity used. This places shore power use in ports at a disadvantage position, especially in the UK, where electricity prices are some of the highest globally. Therefore, the Government needs to provide financial incentives by removing the tax on the use of port electricity by ships that would help promote the use of shore power and ensure a level playing field with electricity generated onboard ships produced from the use of rebated marine fuels.
9. **Timeframe:** There should be a reasonable lead-in time for at-berth regulations, reflecting the significant costs and planning involved, but given the urgent need for change, that should not be extended beyond 2030. A stepped approach might be appropriate and should be further explored.
10. **Exemptions:** Exemptions for ships spending less than 2hrs alongside a berth should be considered.

11. **Standards:** The framework shall promote the use of internationally agreed standards (IEC, ISO and IEEE) to ensure worldwide compatibility and safe connection between ports and vessels.

12. **Transparency/Cost Supply:** The framework shall ensure economically viable and transparent shore power charging tariffs across UK ports. Capital costs incurred to provide shore-based charging infrastructure should be amortised over a reasonable life expectancy of the technology. Whilst it is recognised that there will be both CapEx and OpEx associated with supply infrastructure, adopting a front end loaded cost recovery regime by the ports will disincentivise ship operators to connect to shore power.

Equally, shore power pricing regimes should not seek to create new inequitable income streams for port operators that aim to finance further port developments elsewhere at the expense of ship operators.

In addition, the lack of competition on electricity supply within the port might lead to unfair pricing, which would further dissuade the shift towards shore electrification. Therefore, connection and disconnection charges should also be kept fair.

Green discounts can also be considered on port & harbour dues by the port as incentives and cushion to a certain extent the cost impact faced by ships owners for the purchase of shore-side electricity.

13. **Private port facility operators operating within Competent Harbour Authority (CHA) areas:** To, as far as possible, ensure a level playing field for as wide a range of port facility and ship operators and to ensure maximum uptake of shore power technologies equal treatment of any potential incentives or benefits be afforded to private port facility operators whose facilities are located within an overall CHA area.