



UK Shore power: barriers and solutions

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UK Shore power: barriers and solutions

Shore power connects ships to land-side power networks, so they don't need to burn fuel oil in their auxiliary engines to produce electricity for onboard use while in port, reducing air pollution. Because UK grid electricity is low-carbon, this also cuts greenhouse gas emissions. Shore power is also an enabling technology for greater use of hybrid/all-electric ships, which need battery recharge. But UK deployment is low. The UK Government sees shore power as a core component of its maritime decarbonisation strategy and is considering policies to accelerate deployment. This note summarises research analysing the barriers to deployment, and how they could be overcome, based on interviews with 40 industry stakeholders.

| Core Barriers to UK shore power deployment |
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| High capex costs, especially if grid power capacity is lacking, which ports struggle to recoup |
| High costs of grid electricity coupled with lower costs for electricity from ships' fuel oils |
| Weak and sometimes mistrustful relationships between port and ship operators |
| A lack of interaction between ports and Distribution Network Operators (DNOs), and relative lack of interest from DNOs |
| Lack of overarching clear policy direction and support on shore power from UK Government |
| Shore power projects are complex, requiring co-operation between multiple entities |
| Energy/electricity not being part of a port's core business |

Although these barriers are serious, experience from other countries shows that they can be overcome, in large part through coordinated Government support, but also through improving relationships between stakeholders. Priority actions are:

- A package of Government support, including:
 - A capital fund, giving 50-75% funding, as in other countries, for projects with net societal benefits.
 - Reductions in electricity taxation for shore-power to allow it to compete fairly with marine diesel oil, mirroring similar action in other European countries.
 - A commitment to enabling wider port electrification and smart grids, through changes to electricity network planning and regulation.
 - A commitment to put in place a zero-emission-berth regulatory standard compatible with incoming EU legislation on port and ship shore power.
 - Information service on business models via the new UK-SHORE office.
- Increased intra-sectoral collaboration, via:
 - A working group between port associations, DNOs, National Grid, Ofgem, and the UK Government with the aim of developing a clear, simple framework for enabling the development of Port smart grids.

In the UK shore power would deliver local air quality improvements and help meet the Government's climate change targets. It is a critical element of ports becoming smart green energy hubs, and a core enabler for the growth in hybrid and all-electric vessels. But it requires policy support. The Clean Maritime Plan Strategy refresh in 2023 is a critical opportunity to put in place policies to accelerate this technology's deployment.

This briefing note is based on a report from researchers in Tyndall Manchester for the UK Major Ports Group and the British Ports Association: Barriers and Solutions for UK shore power.
<https://mailchi.mp/britishports/tyndall-report>