

Powering Royal Navy ships with hybrid-electric engines

News story

DASA is exploring solutions for innovations in hybrid powertrain technologies that could power Royal Navy vessels and reduce carbon emissions



The [Defence and Security Accelerator](#) (DASA) is pleased to launch a new Market Exploration called [Hybridisation of the Naval Fleet](#), which aims to identify hybrid powertrain technologies for Royal Navy (RN) and Royal Fleet Auxiliary (RFA) ships.

This Market Exploration is being run on behalf of the UK Ministry of Defence (MOD) Naval Ships Support Central Engineering Team and seeks hybrid powertrain technologies to explore options that will be implemented by 2030, to aid the defence environmental sustainability strategy to reduce carbon emissions by 2050. Proposals submitted to this Market Exploration should be at [Technology Readiness Levels \(TRLs\) 5-9](#).

[Do you have an innovative solution? Read the full Market Exploration now and submit your idea](#)

Using hybrid engines to reduce the emissions of Royal Navy and Auxiliary ships hybrid powertrain solutions for RN and RFA ships could reduce emissions by 20-40% by 2030. We want to understand the hybrid powertrain market for ships that meet the capability requirements for Defence Equipment and Support (DE&S), as solutions will be retrofitted to ships.

We are seeking solutions per vessel, based around electrification (AC as well as DC) and electrical storage. Solutions will be able to be retrofitted to current vessels and will not have a negative impact on their individual operational capability. Preferable solutions will be weight saving or neutral.

What kind of ships will solutions need to be implemented on?

- mass of 65,000 Tonnes at a speed of no less than 25 Knots
- mass of 6,900

Tonnes at a minimum of 26 Knots • mass of 7,350 Tonnes at a minimum speed requirement of 32 Knots

Do you have an in-depth understanding of emerging capabilities, technologies, initiatives and novel approaches that may help better our understanding of the hybrid powertrain market? Submit an idea and help inform UK Ministry of Defence (MOD) Naval Ships Support Central Engineering Team in methods for reducing carbon emissions in the Royal Navy.

[Read the full Market Exploration document and submit your innovation](#)

Published 18 November 2021