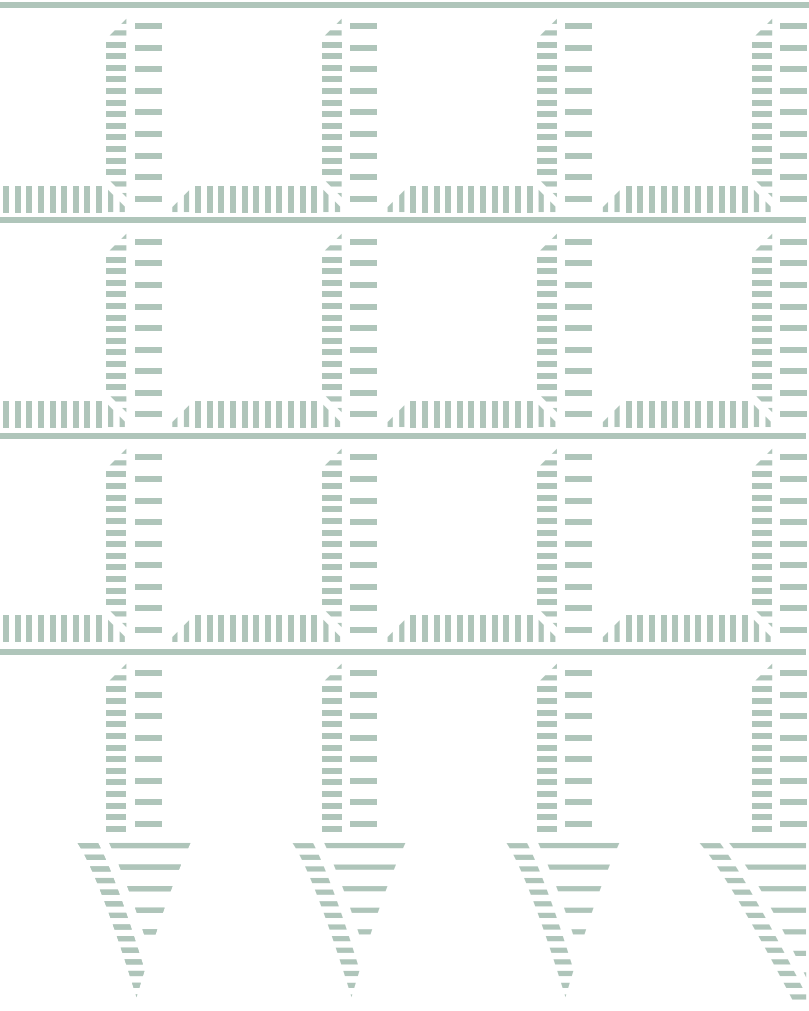


Environmental Audit Committee

Net zero and UK shipping: Government Response

Second Special Report of Session 2024–25

HC 705



Environmental Audit Committee

The Environmental Audit Committee is appointed by the House of Commons to consider to what extent the policies and programmes of government departments and non-departmental public bodies contribute to environmental protection and sustainable development; to audit their performance against such targets as may be set for them by His Majesty's Ministers; and to report thereon to the House.

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Second Special Report

The Environmental Audit Committee published its Seventh Report of Session 2023–24, [Net zero and UK shipping](#) (HC 509) on 29 May 2024. A letter from the Rt Hon Heidi Alexander MP, Secretary of State for Transport, was received on 28 January 2025, together with the Government response. Both are appended below.

Appendix 1: Letter from the Rt Hon Heidi Alexander MP, Secretary of State for Transport

I am writing in response to the Environmental Audit Committee’s (the Committee) report on 24 May 2024 on Net Zero & UK Shipping. I would like to thank your Committee for its report and recommendations and I welcome the opportunity to respond.

Whilst maritime emissions have declined by 30% since 1990, domestic and international maritime operations contributed 7.9% of the total emissions from the UK’s transport sector in 2022. They represent a challenging sector to decarbonise due to the international nature of the sector and its often complex operations. The sector is comprised of high- capital assets, with long lifespans, and a number of potential fuels and technologies likely to play a role in decarbonising the sector. The sector is vital, both globally and for the UK, to enabling trade and economic prosperity, with over 80% of global trade (by volume), and over 95% of cargo imports and exports to the UK, moving by sea.

This Government is committed to addressing these challenges and, alongside our world-leading maritime sector, deliver shipping’s

contribution to our economy-wide climate targets. Delivering a greener shipping and maritime sector also supports the Government's missions to make Britain a clean energy superpower, while kickstarting economic growth and tackling pollution to support our health mission. We will do this through ambitious international leadership and innovative domestic policies and measures.

It is Government's intention to publish a maritime decarbonisation strategy which will address many of the Committee's recommendations. Until then, having carefully considered the Committee's report, and the evidence provided, the Government's response to the Committee's recommendations is set out below.

I look forward to working with the Committee as the Government delivers on its ambition of a decarbonised maritime sector, reducing shipping's wider environmental impacts, and delivering growth for the UK.

Appendix 2: Government response

This appendix sets out the Government's response to each of the Committee's conclusions and recommendations. The Committee's text is in bold and italicised, and the Government's response is in plain text. Paragraph numbers refer to corresponding paragraphs in the Committee's Report.

Recommendations

Global and regional regulation of shipping emissions

We recommend that the Government continue to work at the IMO for adoption of effective regulatory measures to implement the 2023 Strategy. In tandem with this, Ministers must press for a 2028 Greenhouse Gas Strategy which consolidates the ambition of the 2023 Strategy while striving for reductions in line with the UK Government's stated goal of absolute zero emissions from international shipping by 2050. (Paragraph 48)

The Government accepts this recommendation.

The UK is working with other International Maritime Organization (IMO) Member States to champion the agreement of ambitious GHG reduction regulatory measures for international shipping. We will continue to build international consensus so that ambitious measures are agreed at the 83rd Marine Environment Protection Committee (MEPC) in 2025 and implemented in 2027 to help deliver the sector's net zero transition. The UK Government will also seek to increase the stringency of the IMO's 2023 GHG Strategy when revised in 2028 to align this with our domestic ambitions and keep the 1.5-degree Paris temperature goal within reach.

Prompt and effective implementation of IMO conventions will be essential to the delivery of meaningful reductions in shipping emissions in line with Paris goals and national net zero pathways. We therefore urge the UK to work with those flag States with substantial shipping registries to ensure full and thorough implementation of IMO conventions on maritime GHG reductions, supporting capacity-building where necessary. (Paragraph 49)

The Government accepts this recommendation.

GHG emissions from international shipping are a global problem and best addressed through a global, IMO-led solution. As a Party to Annex VI of the International Convention for the Prevention of Pollution from Ships,¹ the UK is committed to implementing regulatory measures agreed through the IMO. To guarantee the environmental integrity of these measures, we will endeavour to work with other flag states through the appropriate IMO mechanisms to maximise their implementation across the globe so that meaningful reductions in GHG emissions can be achieved at pace. This includes through capacity building and technical cooperation at the IMO, and through the IMO Member State Audit Scheme (IMSAS)² to verify compliance with treaty commitments, including those directly addressing GHG emissions and those that ensure the safe use of near-zero and ultimately zero GHG emission fuels on ships.

The UK Government's approach to delivering net zero shipping

We recommend that the Government urgently assess the merits of introducing a voyage-based measure of the UK's contribution to international shipping emissions, so as to provide a sounder basis for developing policy on reducing that contribution. It is in the interests of the industry and policymakers alike that the matter is swiftly clarified, and that the legislation to include international aviation and shipping emissions in the Sixth Carbon Budget is brought before Parliament for approval without further delay. (Paragraph 60)

The Government accepts this recommendation.

As part of developing our evidence base, the Government has developed a new maritime emissions model. This model takes global vessel data from Automated Identification Systems (AIS) as the basis for calculating emissions, and allows for an 'activity-based', or 'vessel-based', measure of the UK's share of international shipping emissions to be calculated. Moving forward we will use this new capability to review the methodology used in UK national accounting against the previous method, namely bunker fuel sales.

The Government aims to legislate for the inclusion of International Aviation and Shipping emissions in the Sixth Carbon Budget at the earliest opportunity, subject to Parliamentary scheduling.

Net zero offers the UK an unrivalled opportunity to secure benefits for the UK maritime sector and the UK's research and manufacturing base. It is now high time for Ministers to advance to the next stage of policy development

1 [https://www.imo.org/en/about/Conventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-\(MARPOL\).aspx](https://www.imo.org/en/about/Conventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-(MARPOL).aspx)

2 <https://www.imo.org/en/OurWork/MSAS/Pages/Default.aspx>

by setting stretching but achievable interim targets for UK domestic and international shipping emissions, consistent with carbon budget requirements and the overall 2050 net zero target. (Paragraph 95)

The Government accepts this recommendation.

The Government is committed to publishing a maritime decarbonisation strategy (see below) and we are considering options for interim targets for reducing GHG emissions in 2030 and 2040, which are consistent with carbon budgets and the 2050 net zero target. The Government welcomes the achievements of the 2023 IMO Revised GHG Strategy and the interim targets and will work towards the highest possible ambition as part of their next review in 2028.

Technical measures to decarbonise shipping: renewable marine fuels

The Government must send clear and unambiguous signals to the UK maritime sector that it is committed to supporting its transition to net zero. We recommend that Ministers urgently review the funding perspectives for decarbonisation of UK shipping and, no later than the next fiscal event, provide a commitment to further matching funding for research and development to at least 2030. (Paragraph 135)

The Government partially accepts this recommendation.

We recognise further research and development will be required to accelerate the development of the fuels and technologies required to decarbonise the sector. We have also heard calls from the sector for longer-term certainty required in both policy and research and development. Government will be considering how best to take forward this recommendation as part of the next multi-year spending review.

As part of the updated Clean Maritime Plan the Government must develop a strategy to support the development in UK maritime clusters of facilities for the manufacture of zero-emission marine fuels. This strategy must be supported by a delivery plan which sets clear production milestones. (Paragraph 138)

The Government notes this recommendation.

The Government has a pipeline of committed low carbon hydrogen projects and is actively exploring ways to supply some of this hydrogen to shipping, either as hydrogen or as hydrogen derivatives. The manufacture of low carbon and zero, and near-zero GHG emission fuel for shipping in the UK is a complex issue and the competitiveness of the UK as a future maritime fuel producer in a nascent international market is not yet fully understood. However, the Government is already supporting low carbon maritime and industrial clusters such as Net Zero Teesside or Zero Carbon Humber.

Government has supported innovation in zero-emission marine fuels through the £206m UK Shipping Office for Reducing Emissions (UK SHORE) programme, in which over 40% of projects feature zero GHG emission marine fuels across the first four rounds of the Clean Maritime Demonstration Competitions and Zero Emission Vessels and Infrastructure schemes.

We recommend that Ministers consult on the introduction of a revenue support mechanism to incentivise the commercial production of zero-emission marine fuels in the UK. (Paragraph 139)

The Government notes this recommendation.

The Government recognises the need for availability and supply of low carbon, and zero and near-zero GHG fuels for the maritime sector. Given the globally traded market for maritime fuels, with operators able to refuel outside of the UK and with fuel imports for sale in the UK already commonplace, more evidence is needed on how to incentivise the production of these fuels in the UK. The Government is committed to gathering further evidence on the potential production of low carbon marine fuels in the UK.

Technical measures to decarbonise shipping: efficiency improvements

The refreshed Clean Maritime Plan must set stretching interim targets for the emissions savings to be achieved from operational efficiencies in UK domestic shipping to 2050, together with a detailed plan for how these savings are to be achieved through measures such as route and speed optimisation. (Paragraph 165)

The Government partially accepts this recommendation.

The Government recognises the key role of efficiency in decarbonising the sector, both to reduce emissions in the near term, and to reduce the requirements from future fuels and energy sources. These future energy sources are likely to be less energy dense, reducing the operational capacity of vessels, and more expensive, increasing the operational costs of investments. Given the international nature of the sector the IMO will have a key role to play in increasing the energy efficiency of the fleet.

The Government will continue to support the review of the IMO's energy efficiency measures, pushing for this review to further incentivise energy efficiency, as well as explore the case for domestic measures to complement them.

We recommend that, as part of the refreshed Clean Maritime Plan, Ministers commission a workstream to examine how the efficiency of international shipping operations can be further optimised by the appropriate development of the expertise in the UK Hydrographic Office. (Paragraph 167)

The Government notes this recommendation.

The UK has a wide range of expertise that can aid the efficiency of maritime operations, including the development and design of on-board energy efficiency technologies, through to a strong base in hydrography and AI and autonomy, specialisms which can play a role in delivering route optimisation. As part of our work on energy efficiency, we will engage directly across UK stakeholders, including the UK Hydrographic Office (UKHO) and other centres of expertise, such as the Government supported UK Clean Maritime Research Hub.

We recommend that Ministers consult on the emissions benefits to be achieved through regulating the maximum carbon intensity of vessels allowed to enter UK ports, with a view to permitting only those vessels rated 'A' to 'C' for carbon intensity under the current IMO Energy Efficiency Existing Ship index to enter. (Paragraph 169)

The Government notes this recommendation.

The Government recognises the need for improvements and changes to be made to the existing short-term measures at the IMO to address the concerns of industry and other Member States. The Government will remain ambitious and push for considerable and beneficial changes quickly through the ongoing IMO review process. It would be premature to consult on this issue given the review which we will continue to support, pushing for further incentivisation of energy efficiency, as well as exploring the case for further domestic measures.

We recommend that Ministers launch their planned consultation on net zero ports without further delay, so as to gather signals from the ports industry and the wider maritime sector at the earliest opportunity as to what infrastructure is likely to be required to minimise the emissions from ships at berth in UK ports, to provide for bunkering and refuelling with low- or zero-emission fuels and to develop a suitable structure for funding infrastructure development. Ministers must send the clearest signals possible about the likely requirements for port electrification so as to enable early planning for potential grid connections. (Paragraph 179)

The Government accepts this recommendation.

The Government is considering options on a call for evidence alongside its plan for the decarbonising the domestic maritime sector. It is important to understand and collate evidence on what clean energy infrastructure

currently exists at ports and how the government can enable ports to decarbonise their operations. This will help inform how ports can enable shipping to decarbonise through the introduction of further clean energy infrastructure, including the importance of timely grid connection upgrades to the sector.

In its response to this report we expect Ministers to set out the current state of each of the green corridor feasibility studies UK SHORE is engaged in, and the state of discussions with the USA, Canada, Singapore and other relevant Clydebank signatories on the requirements for implementing bilateral green corridors with each. (Paragraph 188)

The Government partially accepts this recommendation.

The Clydebank Declaration, now signed by 27 nations, established a collective target of at least six operational Green Corridors by the middle of this decade. Currently there are no completed Clydebank-compatible Green Corridors in operation.

The UK has proactively supported the future delivery of Green Corridors through funding provided within the UK SHORE programme. This includes:

- The second round of the Clean Maritime Demonstration Competition (CMDC2) provided £1.1m to three feasibility studies exploring potential Green Corridors between the Ports of Dover, Calais and Dunkirk; the Ports of Aberdeen and Bergen; and the Ports of Tyne and Rotterdam. Further information on these projects is available in the CMDC2 Project Overview [Brochure](#).
- Zero Emissions Vessels and Infrastructure (ZEVI) funding provided up to £80.4m of match-funding to fund projects demonstrating on- vessel technology and shore-side infrastructure. This includes projects which will deliver domestic Green Corridors, such as the Electric Orkney project to test two electric passenger ferries, and others which are critical to the future delivery of international Green Corridors, such as the Sea Change project to design, build and operate a shore power system across three berths at Portsmouth International Port.
- CMDC5: International Green Corridor Fund was launched in April 2024. This fund allocated up to £1.5m for feasibility studies examining Green Corridor routes between the UK and the Netherlands, Norway, Denmark, and Ireland. Partner countries are providing match-funding for organisations in their countries, or in-kind contributions through access to information and facilitation of collaboration. The winning UK-Ireland project, led by the Port of Tyne, and UK-Netherlands project, led by Stena Line Ports in Holyhead Port, were announced in October

2024. The winners for the UK-Norway and UK-Denmark projects will be announced soon. Further information is available at [International Green Corridor Fund - GOV.UK](#).

Alongside this UK SHORE funding the UK has formed bilateral partnerships to support the establishment of Green Corridors with the US, Norway, the Netherlands, Denmark and Ireland and signed agreements with Spain, Singapore, Republic of Korea, Belgium and France. The Government also engages with other Clydebank signatories, notably through the Zero Emission Shipping Mission, to facilitate cross-border learnings. Each of these bilateral engagements is undertaken with the ambition of delivering Green Corridors and working with other ambitious nations to do so. Progress on individual bilateral green corridor work will be provided at appropriate points.

Economic measures to decarbonise shipping

The Government must press for a global market-based measure for international shipping to be adopted and implemented at IMO level by the end of the current GHG Strategy period in 2028. To avoid ‘double counting’, any IMO measure ought to be drafted so as not to impede the operation of any national or regional economic measures that are equivalent in both scope and ambition to its own global measure. (Paragraph 200)

The Government accepts this recommendation.

The Government is clear that a global mechanism for pricing GHG emissions through the IMO is key to delivering on the 2023 IMO GHG Strategy. The Prime Minister, in his speech at the United Nations General Assembly in September 2024, stated ‘we must put a price on the true cost of emissions through a new levy on global shipping’. The UK is working with other high ambition States to champion the adoption of an international shipping levy at the IMO’s 83rd MEPC in April 2025, which would take effect in 2027. As part of this the Government will seek to avoid double counting or potential overlaps with national or regional domestic GHG pricing schemes.

Relaunching the Clean Maritime Plan

The revised Plan will represent a significant policy statement from Ministers in response to the IMO’s revised GHG strategy. It must be cast so as to outstrip the ambition of the IMO’s current strategy, while setting out stretching yet deliverable policy objectives and actions for the UK maritime sector. At a minimum we expect it to contain:

- *interim and overall targets for emissions from UK domestic and international shipping to 2050, together with a detailed plan to achieve the targets and details of the modelling and assumptions underpinning the targets;*

The Government accepts this recommendation.

The Government is considering options for setting out interim and 2050 goals for the GHG emissions from UK domestic maritime sector in our upcoming strategy. As part of this strategy, we will also set out the pathway to meet these goals, in terms of the reduction in GHG emissions needed, the changing fuel mix needed across the fleet, and the changes in operational and technological efficiency needed to meet them.

The Government will also continue to support the IMO's 2023 GHG Strategy, both through supporting delivery against its interim targets, and pushing for an ambitious review of its targets when it is reviewed in 2028.

On modelling, the Government has continued to develop our evidence base on maritime decarbonisation and has developed a new maritime emissions model. This model takes global vessel data from Automated Identification Systems (AIS) and allows for an 'activity-based', or 'vessel-based', measure of the UK's share of international shipping emissions to be calculated. Moving forward we will use this new capability to review the methodology used in UK national accounting against the previous method.

- *a strategy to supply UK domestic and international shipping with zero-emission fuels derived from hydrogen, together with a strategy to develop facilities for the production,*

transmission and storage of such fuels, so as to outstrip IMO targets for the replacement of conventional fuels;

The Government partially accepts this recommendation.

The Government recognises the key role that zero, and near-zero, GHG emission fuels can play in decarbonising the maritime sector, and that many of these are derived from hydrogen, or other zero emission energy sources, such as electricity. We are considering options to increase the use of future fuels at an ambitious, but achievable, rate as part of work on the maritime decarbonisation strategy. This will include measures to see increased demand and through a call for evidence on net zero ports explore the facilities to support this uptake at ports, including any plans for ports to become zero or near zero emission refuelling hubs.

- *measures to leverage the UK's expertise in shipping law and hydrography so as to support route optimisation measures in global shipping, and*

The Government notes this recommendation.

The Government recognises the internationally leading role of the UK's shipping law and hydrography industries, alongside that of maritime finance and professional services. We are considering how to reflect and build on these strengths as we develop a maritime decarbonisation strategy, rather than setting specific measures that rely on them alone,

- *measures to deliver decarbonised shore power to vessels berthed in UK ports, so as to reduce their emissions and improve port air quality.*
(Paragraph 205)

The Government accepts this recommendation.

The Government is considering options to help ensure the delivery and installation of the right infrastructure at the right time in UK ports. This could reduce the emissions from vessels whilst at berth, which make up a substantial fraction of domestic maritime emissions and address their contribution to both local and national air pollution concentrations.

The delay in publication of the revised Clean Maritime Plan is highly undesirable, particularly in the light of recent intensification of international dialogues on maritime decarbonisation. Stakeholders understandably demand policy certainty before making substantial investment decisions on decarbonisation strategies. Ministers must therefore update Parliament as soon as possible in the next session on their progress in finalising the review of the Clean Maritime Plan, and commit to a date, not later than three months from the date of State Opening, by which the revision of the Plan will be issued. The update to Parliament must set out the issues which the revised Plan will address, including the Government responses to all outstanding consultations and calls for evidence relevant to maritime decarbonisation.
(Paragraph 206)

The Government accepts this recommendation.

The maritime decarbonisation strategy has a key role to play in providing much-needed certainty for the sector to unlock and accelerate investment in zero emissions shipping. The Government will look to publish this shortly and confirm that it will cover:

- A pathway for the maritime sector to meet net zero, with interim goals for 2030 and 2040 which are both ambitious and achievable,
- A range of policy interventions that will together deliver this pathway,
- A framework for how the sector can support Government missions and the principles we will use as we develop specific policy interventions,

- The timeline for delivery of interventions, and the opportunities for public and industry input in the detail and implementation of these interventions.