Written evidence from Associated British Ports

About ABP

ABP owns and operates 21 ports around the UK and Hams Hall Rail Freight Terminal, which together around handle around quarter of the nation's seaborne trade. We operate four ports on the Humber, Hull, Goole, Immingham and Grimsby, which together constitute the largest ports complex in UK and serve its busiest trading estuary. ABP's Port of Southampton is the UK's principal port for the automotive trade and cruise, and home to the nation's second largest container terminal. ABP also operates five ports in Wales which form the backbone of the South Wales Industrial Cluster and handle a broad range of cargoes in support of local and national industries and manufacturers.

By facilitating trade and connecting British businesses and manufacturers to international markets, our ports act as important drivers of economic growth in regions and coastal communities around the country. Together with our customers, our ports handle £150 billion of UK trade, including £40 billion of UK exports through the Port of Southampton. In fulfilling this vital role, the ports support 119,000 jobs and contribute £7.5 billion the UK economy. ABP's ports are also at the forefront of the renewable energy sector, supporting the growth of the offshore wind sector and driving decarbonisation in the supply chain through on-site renewable energy generation for ports operations and our customers.

ABP is owned by five blue chip pension companies and infrastructure investment funds which share the long-term perspective of the business and a commitment to invest in world-leading port infrastructure and services.

- **What contribution can operational efficiencies make to reduce emissions from aircraft / shipping vessels and over what timescale could these have an effect on emissions?**

After the cost of the vessel itself, fuel usage is generally considered as the most significant cost centre for any shipping operator. There is, therefore, an ever-present eye on fuel consumption by vessel operators. Slow steaming to ports to optimise consumption is general practice.

In recent years, we have seen the arrival of larger new build vessels to optimise economies of scale resulting in a trend of larger but fewer vessels. As a consequence, this can mean that port infrastructure has had to be improved to accommodate an increase in goods per vessel. Larger vessels also mean that fewer ports will be able to accommodate these vessels leading to the creation of hub ports resulting in a critical mass of maritime and logistics operators.

- **How close are zero carbon fuels to commercialisation for aviation / shipping? How effective will the Jet Zero Council be in catalysing zero emissions technologies? What role should transitional fuels such as alternative hydrocarbon fuels play?**

The future is unclear at present. Whilst there is a common consensus in the ports and maritime sector to reduce emissions and use fuels more efficiently, the application and adoption of alternative fuels for shipping remains uncertain. Hydrogen and Ammonia are commonly discussed alternatives for commercial shipping but at present there appears to be no commercial application for larger sized vessels.

Sensible exemptions, taxation exemptions, timelines, government support are all possible policy levers to support and accelerate the adoption of new low and zero carbon alternatives to existing fuels.

- **What new technologies are there to reduce emissions from aircraft / shipping vessels and how close to commercialisation are they?**

Shore power connectivity could play an important role in supporting vessels to reduce emissions while in port. ABP recently opened the new Horizon Cruise Terminal in the Port of Southampton, following a £55 million investment from ABP, cruise partners and support from Solent LEP and the Government's Getting Building Fund. It represents the next generation in sustainable cruise operations and a first for the UK, with Horizon's shore power facility expected to be commissioned early next year, enabling compatible cruise ships to 'plug in' to green energy while berthed alongside.

The terminal is fitted with more than 2,000 roof-mounted solar panels, which means that on a day-to-day basis it will generate more power than it uses. The terminal demonstrates the power of partnership and how collaboration between local businesses and public sector partners can help unlock significant investment and deliver sustainable infrastructure fit for the future.

The roll out of shore power facilities across the UK presents significant challenges in terms of infrastructure delivery, vessel compatibility, supply and grid capacity. ABP supports the proposals put forward by the UK Major Ports Group, the British Ports Association and the UK Chamber of Shipping that a successful approach to reducing emissions (at berth) would require a combination of public funding support with a technology neutral, goal-based approach to delivering infrastructure where required.

ABP is also a key partner in a project to develop c. 20MW green hydrogen production for use at the Port of Immingham, either as a direct replacement to diesel and heavy fuel oil, or for the production of clean shipping fuels. Their aim is to tackle the challenge of decarbonising maritime, for which electrification is not a viable solution. Immingham could be the first step in the uptake of hydrogen as an alternative to fossil fuels across the whole maritime sector.

This has been facilitated by the Clean Maritime Demonstration Competition, funded by the Department for Transport and delivered in partnership with Innovate UK. This illustrates the essential role government funding can play in unlocking private sector investment in new green technologies and

highlights the need for further such programmes if we are to achieve the scale of investment and change required.

Maritime UK, the body representing the UK maritime sector, is calling for a £1 billion investment programme from Government in the upcoming spending review to help accelerate decarbonisation in maritime and unlock further investment that will help drive growth in coastal communities around the UK.

- **How should the Government's net zero aviation strategy support UK industry in the development and uptake of technologies, fuels and infrastructure to deliver net zero shipping and aviation?**

Progress is likely to be shaped by fiscal or policy measures but it is important to recognise that shipping is a global enterprise, with most commercial shipping lines headquartered outside the UK. A partnership approach with the International Maritime Organisation (IMO) and the European Union (EU) may be the most appropriate mechanism to deliver change for the uptake of technologies and fuels in shipping. Ports will subsequently need to adapt to accommodate any changes e.g. the supply, storage and handling of alternative fuels.

Liquefied Natural Gas (LNG) fuel, for example, which reduces carbon emissions by 20%; NOx by 85-90% and removes particulates and sulphur, is still in its infancy but appears to be the current roadmap for larger shipping lines as a viable alternative to Marine Gas Oil (MGO). It is also not readily available in UK ports: LNG supply for vessels in Southampton typically come from Zeebrugge or Rotterdam.

Uptake of alternative fuels for smaller domestic vessels is likely to arrive in the marketplace first, although there is currently no clear roadmap for adoption. Investment in vessel replacement is significant with assets generally having long lifespans (20+ years). Ports and supply chain logistics are likely to have to adapt in order to accommodate alternative fuels.

Onshore power provision for vessels alongside removes emissions and noise. It is, however, a technology that is challenging to deliver. There are currently limited numbers of vessels that can utilise this technology and the costs of implementation are extremely high. Indeed, we are unaware of any shore power projects in the world that have been delivered without public funding.

Several EU Member States have also removed taxes on electricity and it is noteworthy that the UK has for many years had one of the highest electricity charges in Europe. Even with public funding, the availability of power to supply vessels will be limited by the national grid power availability. Upgrades to grid capacity will increase the costs of implementation even further.

It should also be noted that it may be prudent to look at a sector specific approach when it comes to shipping. Vessel type and size will dictate the future of alternative fuel adoption or emissions reduction.

- **What is the most equitable way to reduce aircraft passenger numbers (e.g. reforming air passenger duty and taxes, frequent flyer levies, bans on domestic flights where trains are available, restrictions on airport capacity)? Are there any policy mechanisms that could reduce our reliance on shipping?**

As a trading island nation, 95% of goods by volume arrive or depart via the nation's ports. UK manufacturers rely on our ports to distribute goods all over the world. The Port of Southampton is the UK's leading export port, handling £40 billion of exports for UK manufacturers every year. We also rely on imported goods that are not made in this country. We need our ports to maintain their capability and resilience to respond to global market demands as well as technology changes. We aim to support UK plc and provide required capacity in a way that transitions to low and zero carbon handling options.

If additional levies are placed on marine fuels, it may be that non-domestic vessels fuel outside the UK which may reduce the number of viable fuel suppliers at the nation's ports. Reduction of the number of actors within the sector may consequently increase costs which will ultimately be passed on to the end consumer.

What is required is an equitable approach so that the UK maritime sector is not disadvantaged and can continue to play a leading role in the global maritime sector. The introduction of unilateral fiscal measures could have the net effect of incentivising use of alternative ports – e.g. competing mainland European ports – which would be commercially advantageous to those ports but would not reduce the overall environmental impact. Ultimately, the costs of transition will be passed on to industry and the end users (consumers) if not appropriately balanced with incentives to preferable alternatives.

- **What further action is needed by the International Civil Aviation Organization and International Maritime Organization to drive emissions reductions? What can the UK Government do to drive international action on emissions?**

The IMO has in place a strategy to reduce emissions from shipping. Annex 19 resolution MEPC.323(74) (adopted on 17 May 2019) invites Member States to encourage voluntary cooperation between the port and shipping sectors to contribute to reducing GHG emissions from vessels. However, the IMO "invites" and "requests" Member States to implement such changes rather than obligates. This approach is likely to contribute to a delay in the uptake of alternative fuels.

See above comment for cooperation with the EU and other partnerships.

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References

BPA Shore Power Paper (May 2020):

https://mcusercontent.com/9fa5533f9884aad39ffc18f0e/files/0e485bd6-d294-410d-879c-78c483ab760b/BPA_Shore_Power_Paper_May_2020.pdf

Maritime UK CSR Bid (2021):

https://www.maritimeuk.org/spending-review/bid