

By email: NIA2.CfE_Responses@nic.gov.uk4th February 2022

National Infrastructure Assessment - Call for Evidence

Thank you for the opportunity to contribute to this call for evidence for the second National Infrastructure Assessment. This is a submission on behalf of Associated British Ports (ABP), the UK's largest ports group.

About ABP

ABP owns and operates 21 ports around Britain and Hams Hall Rail Freight Terminal in the Midlands, which together around handle around quarter of the nation's seaborne trade. ABP's ports include four ports on the Humber - Hull, Goole, Immingham and Grimsby - which serve the UK's 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.

REACHING NET ZERO

Challenge 2: Decarbonising electricity generation – the Commission will consider how a decarbonised, secure and flexible electricity system can be achieved by 2035 at low cost.

The continued growth of the offshore wind sector is essential to the decarbonisation of electricity generation in the necessary timeframes. Ports around the UK are central to enabling this growth and have invested significant amounts of capital to support development and operations & maintenance activity (O&M), bringing significant economic benefits to coastal communities in the process.

ABP's ports are at the heart of the UK's offshore wind clusters. In the Hull, Grimsby, Lowestoft and Barrow, ABP has invested to support the growth of the sector and these ports remain essential to future developments. ABP has a proven track record of investment and delivery to support the sector through manufacturing, assembly, installation and O&M activity.



ABP's joint investment with Siemens delivered the £310 million offshore wind manufacturing facility at Green Port Hull, helping to accelerate the growth of offshore wind energy generation and secure supply chain benefits for the local economy. The Port of Grimsby is today the world's largest base for offshore wind O&M activity. The Lowestoft Eastern Energy Facility (LEEF) will create additional quay space and berthing capacity, new infill land and a deeper harbour approach to accommodate flexible operations for the growing offshore energy sector in the Southern North Sea.

Port Talbot has a critical role to play in the development of Floating Offshore Wind (FLOW) in the Celtic Sea, enabling the South Wales economy to transition from the old, carbon-based economy to a new, zero-carbon world. The developing Floating Offshore Wind (FLOW) sector in the Celtic Sea can be a catalyst for fresh inwards investment capital and deliver against several other objectives such as significant job creation, levelling up deprived areas. Port Talbot has the potential to become the centre of the Celtic Sea opportunity: as the primary hub for FLOW construction and assembly operations and, crucially, for Port Centric Manufacturing of floating offshore wind components (sub-structures, anchors, cables, chain links). It can also be an important base for Operations and Maintenance (O&M) activities such as major component exchange.

Securing these economic benefits and delivering the renewable energy generation needed to reach UK targets on Net Zero requires the combined focus of governments in Wales and Westminster. It requires a concerted effort by government and industry to deliver the necessary policies that will support a) the delivery of port infrastructure at the pace and scale required; and b) ensure local content requirements safeguard economic benefits for local communities by establish a manufacturing base in the UK.

Challenge 4: Networks for hydrogen and carbon capture and storage – the Commission will assess the hydrogen and carbon capture and storage required across the economy, and the policy and funding frameworks needed to deliver it over the next 10-30 years.

ABP welcomes the focus on delivering networks for low carbon hydrogen and carbon capture and storage in the next assessment. There is strong interest from the market in developing infrastructure for production, storage and distribution for low carbon hydrogen in and around our ports. The current barriers to the widespread deployment of low carbon hydrogen include:

- Lack of revenue support to address high cost of hydrogen relative to hydrocarbon alternatives
- High commercial risk for early investments
- Poor long-term visibility of the funding model to justify large scale investments
- Uncertainty of demand creating uncertainty around volume requirements
- Lack of appropriate regulation and policy to support the transport and storage of hydrogen.



Ports have a central role to play in the development of the hydrogen economy. Ports can contribute to this development in several important respects:

1. Development sites for production and storage facilities
 - Ports have large brownfield sites within an industrial setting
 - Suitable for obtaining planning and permits based upon precedent
2. Close to potential demand for hydrogen
 - Proximity to transport demand – ports are intermodal hubs for transport across road, rail and sea
 - Proximity to industrial demand – such as steelworks, refineries and chemical plants
3. Transit and distribution of hydrogen
 - Ports are tri-modal hubs combining road, rail and sea transport
 - Existing infrastructure to distribute alternative fuels
 - Potential for imports and exports by sea.
4. Important connecting infrastructure
 - Many of the ports have large grid connections that will be required for H2 production
 - Coastal locations provide potential for connectivity with offshore wind projects
 - Proposals for CO2 transport infrastructure for CCUS-enabled H2 production (e.g. pipelines on Humber and CO2 shipping from South Wales)

There are existing proposals for both electrolytic (green) and CCUS-enabled (blue) hydrogen production at ABP's ports. Examples in the public domain include Project Mayflower at The Port of Immingham (green) and Equinor H2H Saltend (blue) at the Port of Hull. The application of both green and blue technologies will be crucial to delivering the large-scale uptake of low carbon hydrogen in the next decade.

ABP is an active member, along with our major customers and port users, within two industrial cluster organisations; as a founding member of the Zero Carbon Humber alliance and in the South Wales Industrial Cluster. In addition, we are collaborating with Humber Zero/ V Net Zero in their plans to decarbonise industry and energy production in North East Lincolnshire. These clusters have a crucial role to play in the UK's energy transition and in protecting industrial activity and jobs in key economic areas.



We believe that accelerating the scale-up of hydrogen production, as set out in the Government's Hydrogen Strategy, will require mechanisms to incentivise users of hydrogen as well as producers. Levelling the cost of hydrogen with counterfactual fuels to provide cost parity will make it attractive to fuel switch when assets are due to be replaced, however it is unlikely to stimulate a rapid switch. For example, within our ports we have a number of harbour mobile cranes that are diesel-electric fuelled. The purchase cost of a crane (depending upon its specification) can be between £2-10m and will have an operational life of 20-25 years. For a crane of say 5 years old will not be economic to convert/replace purely based upon achieving the same cost for fuel. Some incentive would be required to stimulate an earlier conversion rather than waiting to the end of the asset life, which would in turn delay potential benefits of decarbonisation.

For our industrial customers the route to decarbonisation is typically more complicated than just a fuel switch to hydrogen. It is important to highlight the interaction between the need for and provision of hydrogen and the development of carbon capture, usage and storage. To achieve decarbonisation of key industries such as steel production, these business models have to operate in parallel and be compatible to ensure investment can be facilitated in technology that combines CCUS and low carbon hydrogen. A joined-up approach that provides a clear and consistent framework for investment will be required to enable to the necessary scale of development.

LEVELLING UP

Challenge 9: Interurban transport across modes – the Commission will consider relative priorities and long-term investment needs, including the role of new technologies, as part of a strategic multimodal transport plan.

As gateways for international trade and important hubs for industrial production, manufacturing and logistics, ports are essential engines for growth, both in coastal communities and in regions across the country. Improving regional connectivity is a fundamental factor in ensuring this growth is widely shared and supports shared objectives on levelling up.

Rail Freight

ABP's ports are significant generators of rail freight ABP also owns and operates Hams Hall, the country's busiest inland rail freight terminal handling in the region of 120,000 TEUs each year. Together with the Group's 16 rail-connected ports, ABP generates 250 freight trains per week transporting containers, bulk cargoes, biomass, cars, steel, and other cargoes. Our ports on the Humber together generate nearly 60 million tonnes of cargo per annum and the Port of Immingham alone generates over 100 trains a week, transporting bulk and steel cargoes. Similarly, the Port of Hull on the north bank of the Humber handles daily freight trains with similar cargoes.

Rail freight contributes to businesses and communities around the country by connecting our ports to power stations, manufacturers, and vital logistics hubs. In addition to commercial benefits stemming from time and cost reductions and enhanced reliability and resilience, these communities also benefit from social outcomes including reduced congestion and air quality improvements. Analysis by the Rail Delivery Group suggests that 90% of the benefits accrue to freight customers and wider society outside of London and the South East, making the sector a particularly significant driver of the levelling up agenda.



The Integrated Rail Plan for the North and Midlands (IRP) has planned the delivery of gauge clearance on the TransPennine Rail freight Route from 2026, which will release the pent-up demand for intermodal traffic between the East and West Coast Ports to the M62 Hinterland, such as Manchester and Yorkshire. If the 2026 delivery date could be brought forward to 2024, the economic and environmental benefits will be also delivered earlier. There is still detailed work to be done to achieve this. Capacity into Trafford Park needs to be evaluated and clarification and solutions to freight capacity issues need to be resolved and delivered in the same timescales as the gauge clearance. There is further detailed work on gauge clearance for other parts of the network, such as Milford Junction to Hull.

Delivering the gauge enhancement work will deliver levelling up, bringing economic benefits to northern ports and businesses, and environmental benefits of reduced HGV miles on the M62 and M60. Not just moving existing flows This will help shift existing traffic flows off the road and onto rail, as well as enabling trade growth on the route. By alleviating pressure and congestion on the Dover Straights this will also help enhance UK trade resilience post-Brexit, helping to increase the use of direct routes to market via northern ports. Faster and more efficient trade flows will directly benefit the economy of the whole of the North of England, creating new jobs in ports and across the supply chain.

Rail freight currently offers unrivalled environmental benefits. Rail reduces carbon emissions by 76% per lorry kilometre avoided. It improves air quality by 16% per lorry kilometre avoided. One freight train can remove up to 76 lorries from the road network resulting in 1.6.bn fewer HGV kilometres per year and imposes only 12% of the noise disturbance of lorry traffic. This reduces congestion and improves safety in urban centres.

The workhorse of UK RailFreight is the diesel-powered class 66 locomotive. Modern bi-mode and electric locomotives cost double the price of the Class 66 if small orders are placed. Certainty for investor is required to give them confidence to invest in the correct type and quantity of assets to ensure the lowest unit price can be delivered.

Certainty of the direction of the Network decarbonation strategy is required for electrification of the following:

- Southampton to Reading – What are the plans to create an environment for investment in either overhead lines or bespoke traction with improve track circuits?
- Leeds to Hull – A date for electrification, including to Hull Docks
- Doncaster to Cleethorpes – A decarbonisation plan for rail freight, including for Immingham Docks.

In the short to medium term, rail freight has a uniquely significant role to play in reducing carbon emissions in the supply chain. The pressing need to reach Net Zero, while also stimulating regional growth to level up the economy, means that bold decisions are now required to support growth and secure long-term investment in the sector.

Modal Shift

A review of Modal Shift Revenue Support (MSRS) is much needed. The Government recognises that MSRS is exceptionally effective and constitutes a great return on investment. However, while the current model is effective at underpinning existing routes, it does not do enough to encourage and stimulate growth. MSRS should not only encourage mode shift away from heavily congested routes but should also be designed to compensate for capacity or capability shortcomings on the network. End users currently face a range of issues - insufficient paths, lack of electrification, gauge clearance, limitations on 775m trains – which this model could help to address in the short term. If such a scheme was to exist it would demonstrate the freight demand was present, allowing GBR to invest in infrastructure enhancements, confident in the knowledge that it would be used.



Road Freight

The issue of increased road congestion on the M62 is covered above and can be most comprehensively tackled by improving East-West connectivity for rail freight. However, the challenges associated with rail freight mean that road freight will remain an essential mode serving the UK's ports, and this will require ongoing improvements to the road infrastructure. Removing pinch points and alleviating congestion wherever possible will help to increase the efficiency and reliability of road freight services, while also helping to reduce carbon emissions and improve air quality. Work to improve the efficiency of freight flows on roads serving major ports will be essential in the short to medium term.

Further consideration should be given to road connectivity to the Port of Hull. The work underway to improve the A63, the main road supporting traffic to and from the port, is much needed, and will bring significant benefits for port users by increasing the flow of freight and reducing delays. Further thought is needed, however, to improve the resilience of the network supporting the port. As things stand, even with improvements to the road the port will remain totally reliant on a single piece of road infrastructure to maintain important trade flows.

The same situation exists on the South Bank of the Humber. The A180 is an excellent road link for ports in Grimsby and Immingham. However, the reliance on one road presents difficulties in terms of resilience as it only requires one major road traffic incident to effectively cut off the ports from the economic areas they serve in other parts of the UK.

A potential solution to this problem might be to build a second Humber Bridge, connecting the South Bank just east of the Port of Immingham to the North Bank in the Holderness area of East Yorkshire. We are aware that the Environment Agency are actively working on proposals to locate a flood defence barrier close to those locations. This would seem to present an ideal opportunity to link two major infrastructure proposals together and build a new road bridge as part of the flood barrier.

Freeports

The establishment of Freeports in England is a significant development and a pillar of the Government's levelling up strategy. ABP is a leading partner in the Humber and Solent Freeports, and the group is also involved in the Plymouth and Liverpool City Region Freeports through the ports of Plymouth and Garston, which stand to benefit as gateways to economic opportunities available within these zones. The Humber Freeport is set to become one of the first Freeports to be fully established in England and is expected to bring around 7,000 new jobs to the region, based mostly in manufacturing. The Humber has already secured new investment from this project bringing 125 new jobs to the area.

Freeports have the potential to boost international trade and exports, support economic development, and drive innovation by further enhancing the ability of these ports to grow and attract inward investment, providing a boost to the local communities in which these ports operate and to the wider economy. Ensuring that the Freeports are served by high-quality transport links will be critical to their prospects of delivering these opportunities and close collaboration will be important in identifying where improved transport connectivity may be required in order to fully enable the first Freeports to fulfil their potential.



