

**Title of meeting:** Cabinet

**Date of meeting:** 01 December 2020

**Subject:** Portsmouth International Port – Carbon Reduction Plan

**Report by:** Mike Sellers, Port Director

**Wards affected:**

**Key decision:** No

**Full Council decision:** No

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**1. Purpose of report**

To brief the Cabinet on Portsmouth International Port's (PIP) aim to be:

- The first net carbon neutral UK port by 2030.
- The first zero emission port as part of the Government's Maritime 2050 strategy.

To seek approval on the contents of and actions from the Port Carbon Reduction/Air Quality Strategy requested by the Department for Transport (DfT).

**2. Recommendations**

That the Cabinet accept the proposed Carbon Reduction/Port Air Quality Strategy.

**3. Background**

The Clean Air Strategy published by DEFRA in 2019 has led to the request from Government (DfT) that English ports that trade more than 1m tonnes of cargo per year produce 'Port Air Quality Strategy' and associated 'Action Plan' aimed at reducing the effect of port operations on air quality.

Portsmouth International Port (PIP) is the largest and most successful municipal port in the UK and has a significant impact on the UK economy with supply chains extending across the South East and beyond. The port contributes £390million to the national economy and £189 million to the Portsmouth City Council area. The port's success is the City's success and we have an obligation to reduce the environmental impact on the community.

All of PIP's infrastructure developments to date have sustainable measures incorporated such as the terminal building which uses wind catchers on the roof of the building to ventilate and cool and sea water harvesting for heating, cooling and toilet flushing. The latest linkspan (bridge between the vessels and the quay) uses 'soft-start' electric motors to reduce electricity consumption. The Terminal Building currently has a PV array installed supplementing approximately 10% of the Terminal Building electricity usage.

This strategy is being presented to the DfT purely on a voluntary basis however PIP is producing this action plan in order to be aligned to the City's visions and ambitions of reducing emissions and improving air quality.

#### **4. Reasons for recommendations**

PIP has currently engaged Royal HaskoningDHV to provide a 'road map' towards the post-Covid, post-Brexit development opportunities that will feed into the Council's Local Plan. Not only will this master plan be aligned to the City's vision, it will follow the DfT's Maritime 2050 Strategy. PIP has expressed its ambitions within the ports and maritime industry to become the first zero emissions major UK port. Additionally a strategy to become net carbon neutral on all landside operations by 2030 in order to be aligned to the City's ambitions.

As a front runner amongst UK ports in improving the sustainability of its operations the port has recently received funding towards innovation and decarbonisation. These initiatives include real time air quality sensors and a state of the art storage battery that utilises machine learning and artificial intelligence to store and distribute renewal energy.

The air quality sensors are being mounted around the port to give port management real time data of air quality pollutants and a management tool to reduce port activity and ship arrivals during periods of peak pollution from commuting vehicles into and out of the City.

#### **5. Integrated impact assessment**

##### **Carbon Reduction Strategy**

In addition to current 'live' projects, the port has produced a Carbon Reduction Strategy which will include the following actions:

##### **Approved Schemes**

- Replacing diesel engines with electric vehicles.

An order has been placed to replace 4 port diesel vehicles will be replaced with electric vehicles this year.

- Replacing diesel fuel with Gas to Liquid (GTL) fuel.

Portico Shipping Ltd now use GTL fuel as an alternative to diesel on their remaining equipment that is not electric which reduces the particulate matter and emissions. Although less equipment used at PIP, the switch to GTL will take place this year.

- The maximisation of photo-voltaic cells (solar arrays) and battery storage, commencing 2021.

PIP have been working with the Council's energy management team to develop a plan to fill the remaining flat roofs of existing buildings with photo-voltaic (solar arrays) and battery storage which will commence early 2021. By the end of 2021 this has the potential to provide around 60% of the ports base electricity requirements.

- Euro 6 compliant bus contract.

PIP has recently completed the tender for contracting bus shuttle services at the port. In line with Council policy, the new award will provide, as a minimum, Euro 6 compliant shuttle buses plus an electric mini-bus. The new contract will commence April 2021.

- Fast charge EV points for passenger vehicles. 80% in 20 minutes

The port will be providing these charging points outside the Terminal Building from 2021.

- Wind turbines

PIP will include our ambition to install landside wind turbines in the port masterplan which will feed into the Local Plan for future planning consents.

### **Grant Funding**

The port is also seeking grant funding for the following projects:

- Updated port and freight management software in order to flatten peak vehicle movement\*.
- Mitigation via externally based, large, fine particle filters and Living Walls adjacent to all Port entry and exit points.

### **Clean Maritime Plan**

PIP is the Statutory Harbour Authority and Competent Harbour Authority responsible for all commercial shipping within Portsmouth Harbour. As an absolute minimum, all vessels using PIP burn fuel that complies with the requirements of the Sulphur Emissions Control Area (ECA) in which they were required to switch to lower sulphur fuels.

We are extremely fortunate that our largest port users are investing heavily in new build vessels that are lowering emissions due to vessel operations.

Wightlink are now operating the Solent's only hybrid car / freight ferry 'Victoria of Wight'

Brittany Ferries will introduce two LNG powered large passenger / freight ferries by 2022 and are looking to invest further in LNG for the future.

The port has ambitions to increase ferry and cruise activity in the future and, with this in mind, have asked Royal HaskoningDHV to engage with shipping lines to understand their future green ambitions.

We see LNG as a "stop gap" before either shoreside power (Cold Ironing) or hydrogen. The port masterplan will ensure that we adapt to the changes for shipping in the future.

### **Innovation**

The port's policy for infrastructure changes will, at the very least, include sustainability and explore innovation.

For example, the port is now required to build a Border Control Point (BCP) under the Government's Border Operating Model for handling EU trade after the end of the transition period. The BCP will have ambient, chilled and frozen chambers to carry our storage and inspection of products of a plant or animal origin. The design of this building will use 'green' energy to provide the power for this building.

The port masterplan will also look an innovation, automation and artificial intelligence to work cleaner and smarter in the future.

### **Port Air Quality Strategy**

The port has drafted the Port Air Quality Strategy, including our Action Plan outlined in this document which is ready to submit to the DfT.

Approval is being sought to submit the attached document before the year end.

## **6. Legal implications**

As stated in the main body of this report, in July 2019 the DfT published its Clean Maritime Strategy together with associated guidance inviting ports which meet certain requirements to prepare voluntary air quality strategies. Such air quality strategies are expected to contain commitments by individual ports to reduce emissions from their operations and to support the reduction of emissions from their customers.

Currently, there is no legal obligation on the Council/Portsmouth International Port to produce such a plan, however, the Environment Act 1995 gives the power to the Secretary of State to assess the air quality standards and objectives and subsequently give directions to local authorities requiring them to take such steps as may be specified in the directions in order to address air quality issues.

## **7. Director of Finance's comments**

Council funding has already been identified for a number of air quality measures the port is currently progressing. This includes:

- Electrification of light goods vehicles
- Fast charge EV points for passenger vehicles
- Living Walls (initial stage)
- Wind turbines
- Maximisation of photo-voltaic cells (solar arrays)
- Feasibility study for shoreside power (cold ironing)

The port actively looks for external grant opportunities. Together with Council funding, grants are currently financing the installation of real time air quality sensors, and a storage battery that stores and distributes renewal energy.

The port is seeking grant to update freight management software in order to flatten peak vehicle movements. Grant and sponsorship are being sought for living walls at the port. In October 2020 the port submitted a bid for the Port Infrastructure Fund to meet the requirements of the new Border Operating Model. The bid includes funding for green infrastructure and green energy for the facility.

A number of measures that will improve air quality at the port are being funded by operators. For example, Brittany Ferries are investing in two LNG powered ferries and are looking to invest further in LNG for the future. The shuttle bus contractor is investing to ensure busses operated at the port are Euro 6 compliant.

Funding sources will be identified and agreed prior to the Council entering into contract for measures that will improve the air quality at the port.

Signed by:

**Appendices:**

Port Air Quality Strategy

**Background list of documents: Section 100D of the Local Government Act 1972**

The following documents disclose facts or matters, which have been relied upon to a material extent by the author in preparing this report:

Title of document	Location
Port Air Quality Strategies	<a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/815665/port-air-quality-strategies.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/815665/port-air-quality-strategies.pdf</a>
The Clean Air Strategy Executive Summary	<a href="http://www.gov.uk">www.gov.uk</a> Clean Air Strategy 2019 Executive Summary
Maritime 2050 Strategy	<a href="http://www.gov.uk">www.gov.uk</a> Maritime 2050 Strategy

The recommendation(s) set out above were approved/ approved as amended/ deferred/ rejected by ..... on .....



Signed by: