

REPORT

Boston Alternative Energy Facility

Port of Boston Pilotage Statement

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1 Introduction

- 1.1.1 A Pilotage Statement has been prepared by the Port of Boston (the Port) to inform the examination of the DCO and matters pertaining to navigation.
- 1.1.2 This Statement has been provided to the Applicant for submission at Deadline 6.
- 1.1.3 The Applicant agrees that the Pilotage Statement provides a detailed description of pilotage at the port and how the increase in commercial shipping arising from the Facility will be safely managed by the Port of Boston.

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Pilotage Statement

This Pilotage Statement has been prepared by the Port of Boston (the Port) to inform the examination of the Development Consent Order (DCO) application for the proposed Boston Alternative Energy Facility (the Facility) made by Alternative Use Boston Projects Limited (AUBP) to the Planning Inspectorate under section 37 of the Planning Act 2008 (Planning Act).

1.0 Harbour Authority and Pilotage – Introduction

- 1.1 The Port is the Statutory Harbour Authority and also Competent Harbour Authority and therefore has statutory obligations and powers to manage and control the movement of ships and navigation within its Jurisdiction Area. As the Competent Harbour Authority the Port has statutory powers relating to the provision of pilotage in accordance with the Pilotage Act 1987, and has a duty to consider what pilotage services are needed to be provided to secure the safety of ships navigating in the harbour; and whether in the interests of safety, pilotage should be compulsory for ships navigating in any part of that harbour or its approaches and, if so, for which ships and in which circumstances and what pilotage services need to be provided for those ships.
- 1.2 Ships and other vessels calling at Boston must navigate through the narrow channels of The Wash and The Haven to access the Port's commercial quays, fishing berths, and other moorings.
- 1.3 The Port manages shipping movements by providing a pilotage service, a Local Port Service (LPS) (Boston Port Control), and close liaison with Ships Agents and the operations departments of the commercial docks.

2.0 Description of Current Vessel Movements

- 2.1 The Port handled 440 commercial cargo vessel arrivals in 2021. Commercial cargo vessels generally arrive at evenly spaced intervals throughout the year, with a slight positive bias on periods of spring tides. Vessels tend to range in size from 80 to 100m LOA.
- 2.2 The Port's dredger sails up and down the river when required for disposal of dredged spoil derived from the dock, the riverside quays, the Port's swinging hole and at Hob Hole, which is some distance downstream of the Port's commercial quays. The number and frequency of transits depends on the volume of dredging carried out and this alters year on year depending upon changing environmental factors.
- 2.3 The Port's pilot cutters transit the river on a regular basis to board or land pilots on commercial vessels. The number of transits is dependent upon the number of vessels calling at the port. On occasions the pilot cutter will make 2 full transits (2 outward and 2 inward) per tide if the shipping movements require.
- 2.4 A fleet of up to 26 fishing vessels are based in Boston. The frequency of their movements is dependent upon the species being fished, cockles, mussels or shrimp and the quotas and limitations put on them by the Eastern Inshore Fisheries & Conservation Authority (EIFCA). Most fishing vessels are 14m or less in length. The highest density of fishing boat movements are associated with cockling, which is seasonal, generally occurring between June and December. In recent years, there have been between 100 and 120 days per annum when cockling has taken place. Outside of these periods a smaller number of fishing vessels will fish for other species, such as shrimp.
- 2.5 A small amount of sail, motor yachts, cruisers and inland waterway boats originating from berths in the tidal river and upriver of the Grand Sluice on the freshwater River Witham also use the river. These movements tend to be limited to the period of April to October.
- 2.6 One commercially operated passenger vessel, Boston Belle, operates from the fresh water River Witham between April and October.
- 2.7 Recreational pleasure vessels occasionally arrive unexpectedly from sea, but the numbers are very small.
- 2.8 Occasional canoes, jet skis, hovercraft and lift foils have been seen in the river.

2.9 The Port's commercial cargo ships and the fishing fleet generate the main traffic in the river.

3.0 Information Management – How the Port Receives Information on Vessel Movements

3.1 Shipping Agents, acting on behalf of the Ship Owner and Charterer, will advise Port Control of all commercial cargo vessels expected to arrive and depart. These details are then disseminated to a number of authorities.

3.2 Contractors carrying out harbour works are required to advise Port Control of any expected vessel movements, including Tugs, barges, guard and safety boats.

3.3 All commercial vessels over 30m are piloted and Boston Port Control arrange the pilot cutter movements.

3.4 The skipper of the dredger (a Port employee) will advise Boston Port Control of its expected activities and movements.

3.5 EIFCA provide a schedule of dates and tides when fishing for cockles and mussels is permitted. The timing of fishing vessel movements can vary depending on the distance of the fishing grounds from the Port and the depth of water on the fishing beds. In recent years fishing vessels will pass the Dock Basin (the destination for most commercial vessels) outward bound between 15 minutes and 1 hour after high water and return between 1.5 hours and 45 minutes before high water. The Port does not receive information on daily individual movements from the fishing fleet. A smaller number of fishing vessels also fish for species other than cockles and mussels which are not regulated by EIFCA and these movements are also not notified to the Port.

3.6 The Lock keeper at Grand Sluice provides the Port with emailed information on his booked locking times with number of vessels expected to lock through and the expected times of arrival at Grand Sluice. This traffic is principally small recreational craft.

3.7 The Boston Belle contacts Boston Port Control by VHF to advise of the timing of its passage and expected duration of the trip, and number of passengers onboard.

4.0 The Role of Boston and Spalding Pilots Association

4.1 The Pilotage service is delivered on behalf of the Port by the Boston and Spalding Pilots Association (BSPA) a partnership of qualified mariners, who are trained and experienced in ship handling and knowledgeable in the channels and navigable waters of the district. BSPA is also contracted to provide the Harbour Master services and hydrographic services on behalf of the Port. The relationship between the master of the vessel and pilot is that the pilot directs the navigation of the ship, but the master still retains overall command and control. BSPA have a long-standing agreement with the Port to provide the pilotage services as per the Pilotage Direction below.

Pilotage Direction

In accordance with Section 7 of the Pilotage Act 1987 the Competent Harbour Authority (CHA) of Boston gives the following Pilotage Directions to all vessels in the Port of Boston District. Pilotage shall be compulsory for the following vessels navigating within the undernoted area except for those which are statutorily excluded: Compulsory Pilotage, Applicable to all vessels ≥ 30m LOA

Compulsory Area

All navigable channels within a line drawn from position 52°57'N, 000°10'E in a south (180°T) direction to the coast of Lincolnshire and a line from the above stated position in a 300 T° direction to the Lincolnshire coast and within the river Witham to Grand Sluice but excluding the River Welland.

4.2 BSPA pilots are authorised by the Port once they have reached an acceptable level of proficiency and passed an oral examination. Authorisation is renewed annually, subject to certain criteria. There are two levels of authorisation, Class 1 and Class 2 subject to experience and ability. A Class 2 authorised pilot is limited to piloting vessels under 89m in length and vessels having no unusual characteristics.

5.0 Boston Port Control

5.1 BSPA personnel staff Boston Port Control (LPS) on all tides when commercial shipping is moving. Boston Port Control is generally staffed by an authorised pilot and on occasions by a suitably experienced and qualified seafarer from the dredger or pilot cutter, who has significant knowledge of the district.

5.2 Boston Port Control is used to relay information to vessels giving details of current wind, weather, tidal data and other shipping movements within the harbour area. The Provision of LPS is designed to improve

port safety and the co-ordination of port services with the port community by dissemination of information to vessels and to berth and terminal operators. It is mainly concerned with the management of the commercial port shipping movements by the supply of information on berth and port conditions. The provision of LPS also acts as a medium for liaison between vessels and stevedores and other port services, as well as providing a basis for implementing the Port's emergency plans when necessary.

5.3 Boston Port Control has the following equipment to enable it to function as an LPS:

- Port Information computer program with data base of ships
- Recordable VHF Radio
- Tidal Gauges situated at Dock Head and the River End, Tide computer giving real time tidal graph information at Dock head
- Port Log .net weather station at the river end and anemometer at Dock Head (Port's wet dock entrance).
- Computer with publicly available Marine Traffic AIS data.
- Access to the Environment Agency CCTV system around the Tidal Barrier in the event of an accident or incident

6.0 Management of Vessel Movements

6.1 As all commercial vessels over 30m are piloted by BSPA pilots, information flows initially from the ship's agents to BSPA (Boston Port Control). The duty Pilot Master allocates acts of pilotage to individual pilots. On arrival at the Port, the pilot discusses with Boston Port Control, the expected activities for that particular tide. This discussion allows each pilot to have a high-level view of expected shipping movements. Pilots and or Ships Agents will contact ships and advise of the pilot boarding time and position. Once onboard, pilots will carry out a Master/Pilot Exchange of information. Pilots report their position in the river at four pre-determined reporting points by VHF allowing all other river users to be aware of their position. Boston Port Control will advise the pilot of any unusual activity and Boston Port Control, will, in the event of necessity issue an all-ships VHF broadcast to advise of any unusual activities.

6.2 Boston Port Control is staffed by members of BSPA, who are also appointed Harbour Master and Deputy Harbour Masters and are therefore able to issue Special Directions to vessels, which allows a significant amount of control of shipping.

6.3 All vessels, including commercial, fishing and pleasure, navigating in the Port's jurisdictional waters are required by Annual Standing Notice to Mariners, Number 2, to monitor VHF 12. They are also required by SOLAS V to prepare a passage plan and to comply with the COLREGS.

6.4 It is standard operational practice for commercial cargo vessels to discuss with other vessels on VHF 12, their expected movements and any requests such as holding position, passing or overtaking.

6.5 The Port does not hold powers of General or Harbour Directions.

7.0 Response to the Increase in Number of Ships Arising from the Facility

7.1 The numbers of commercial vessels calling at the Port will increase significantly from current levels due to the construction and operation of the Boston Alternative Energy Facility (Facility). The number of Authorised Pilots will also increase to service those additional vessels. In general, the management of vessel movements will continue in a similar manner to present.

7.2 Management of vessel movements and safety of navigation will be discussed at a Risk Assessment Workshop, which will inform the development of the Navigation Management Plan for the Facility, as required by Condition 14 of the draft Deemed Marine Licence. The Port will be actively involved with the Facility operator in this workshop, and has identified the following topics that would be considered in the Risk Assessment Workshop:

- The use of additional Notices to Mariners
- The use of additional Aids to Navigation
- Berth design, including NAABSA issues and suitable transitions on and off berths
- Agreed Bollard and Mooring operations
- Matrix Signs e.g. 'Pass at Slow Speed', 'Vessel leaving Berth'
- The assistance of tug(s) and utilisation of second pilot cutter
- Regular bathymetric surveys and dredging
- CCTV of the Facility linked to Boston Port Control
- Encouragement to fit AIS onto non-compulsory vessels
- Radar coverage and upgrade Local Port Service to a VTS system
- Additional vessel movements.

- 7.3 All vessels visiting the new wharf will be required to comply with the Port's requirements in respect of Pilotage that is vessels over 30m in length must carry an authorised Pilot or have a PEC Holder onboard. Although the 1987 Pilotage Act allows for PEC's to be applied for by bona-fide deck officers, the Port will seek to limit the number of Pilot Authorisations to allow the current safe navigation procedures to continue. It is the Ports considered opinion that all commercial vessels using the facility and the Ports berths should be piloted by authorised BSPA Pilots. BSPA as an independent body of self-employed pilots will offer the same level of service to Port and BAEF vessels without prioritising one over the other.
- 7.4 Port records show that the Port has handled similar levels of shipping in the recent past. On average approximately 850 ships annually arrived at the Port between 1980 and 1990, with some years exceeding 1000 commercial cargo ships. The Facility will therefore lead to ship numbers similar to those of the 1980's and 1990's. The Port has assessed that the increase in the total number of craft transiting the river when the BAEF is fully operational will be approximately 15% based on current levels of fishing boat movements and other traffic.
- 8.0 Vessel Movements (Arrivals, Departures, Turning and Other Manoeuvres) and Coordination with other Traffic**
- 8.1 As noted above, similar shipping numbers have been experienced in the past and the turning of vessels in the river was also common practice at that time despite poorer capabilities. (Note: ships in the 80's and 90's were not as manoeuvrable as most ships arriving at the Port now, since many were not fitted with bow thrusters or high lift rudders, and many had air start engines, making it very difficult to hold position in the river when needed. With modern ships it is easier, quicker, and safer to undertake turning manoeuvres or holding position, even with a tide behind the vessel that is subject to windage and adverse prevailing weather).
- 8.2 The Port currently turns all vessels in the wet dock, but as a consequence of the Boston Barrier scheme the Port's swinging area is to be put back into regular use in 2022, and by 2023 the Port's wet dock entrance will have been widened. These two improvements will permit greater future flexibility of vessel turning. BAEF vessels would be turned either on arrival or on departure, either in the river (swinging area) or in the wet dock, and the pilots will determine the most suitable timing and place of turning on safety and efficiency grounds. The Port has no preference as to turning (swinging) on arrival or departure, or whether in the wet dock or river. It is expected that some short delays to commercial shipping might occur from time to time to permit the transit of fishing vessels prior to swinging in the river, and at other times (from time to time) some short delays might occur to fishing vessels or other traffic, whilst a ship is swung in the river. Improvements to the LPS and closer liaison with the fishing fleet is expected to mitigate these impacts.
- 8.3 The majority of vessels will swing in the 1 hour before high water, which is generally outside of the time when fishing vessels transit the Haven. As with all activities, the Port will assess the current situation and make the decision of when and where to swing based on the best knowledge available at the time. With the preferred swinging time to be in the 1 hour window before high water, the likelihood of these activities occurring at the same time will be minimised, but not eliminated. It is acknowledged that there will be times when a commercial cargo ship and a fishing vessel require the same water as each other and on these occasions the pilot will speak with the fishing vessel and agree a plan. Changes in fishing grounds may have the effect of lessening or increasing this interaction.
- 8.4 Fishing vessels (and many small craft) enjoy a long tidal window when they can navigate safely in the river due to their relatively shallow draught and small size. However, vessels navigating to and from the Witham (Grand Sluice), or any berths upriver of the first fixed bridge, will have certain time limitations due to the air draught restriction at the bridges. When looking at the cockle season alone, which currently accounts for the majority of BFFS movements, the departure time from the berths relate to the area where they are fishing and the heights of the intertidal banks on which they need to access. Currently and for a significant number of previous years, this has meant that BFFS vessels will leave their berths after high water. There is no set time for when they leave not any order in which they leave but generally they will all pass the dockhead (wet dock entrance) within 1 hour of each other. This is not an ordered convoy of vessels, one following the other, more about what time suits the individual skipper. Returning to port again will depend on where the fishing grounds are since the height of the banks will dictate when the vessel re-floats and the distance will dictate the time it takes to return. The Harbour Master's experience suggests that returning vessels tend to navigate in a more concise group, as they all want to get back as early as possible, moor up and get ready for the next tide. BFFS vessels generally started passing the dockhead at about 1hour 30mins to 1hour 45 minutes before high water, and the majority will have passed by 1hour before high water.
- 8.5 Shipping arrivals and departures are agreed with Boston Port Control individually based on tidal conditions, weather, and other vessel movements. For arrivals pilots are taken from the dock by pilot

cutter into the Wash. The pilot cutter crew work a 4hour shift per tide and come on duty at 2.5 hours before HW. For inward bound vessels that have arrived and will be at the inner pilot station, the pilot cutter will leave 2 hours before HW getting to the inner station at 1.5 hours before HW. In exceptional circumstances or if the Pilot is required at the outer pilot station, the pilot cutter will leave some minutes earlier. The departure of the Pilot Cutter is restricted by the height of tide and the earliest it could leave would be 3 hours before HW, subject to water levels. By leaving and getting to the pilot station at 1.5 hours before HW the vessel will be boarded and the transit time of approximately 1 hour would allow the vessel to arrive at 30 minutes before HW, which still allows the flood tide to assist in transiting the lock and thereby increases the margin of safety if turning vessels in the river. Vessels of maximum or near maximum draught will be boarded at a similar time but will proceed slower during the pilotage, planning to arrive at the lock entrance when there is sufficient water for it to transit the lock, this will be close to but not after HW. Shallow draught vessels may receive their pilot from an outward-bound vessel and therefore be boarded around 30 minutes before HW. They then arrive at the dock by 30 minutes after to 1 hour after HW, Outward bound vessels in ballast (unloaded with no cargo) may leave as early as 2 hours before high water. Generally, ballast or low draught vessels will leave from 1.5 hours before high water. Maximum draught vessels will need to leave close to HW when there is sufficient water for the vessel to leave the berth. In these circumstances, the vessel will arrive at the pilot station around 1 hour after HW and the pilot cutter will return to the dock at 1.5 to 1.75 hours after HW. When there are multiple ships arriving or departing, and it is possible due to draught and ETA or cargo finishing times, the Port boards pilots onto these ships at a similar time. Once in the river, the pilots will leave a safe distance between vessels. On occasions multiple ship movements may be spaced out significantly.

- 8.6 Interaction between incoming and outgoing vessels do occur and if there are ships inward and outward on the same tide and they need to pass in the river, then these passings are planned by the onboard pilots, so that the vessels meet at the required location (designated passing areas) at the required time. This may require ships to slow down and occasionally hold position for a short time until it is safe to pass.
- 8.7 In managing ship movements it is noted that the port generally tries to berth ships on the first tide after arrival into the Wash. When this cannot be done because a berth is not available, or other reason, then the ship will remain at anchor until the next suitable tide. Some ships arrive at the anchorage with a draught that is too deep to berth on the next available tide, perhaps due to an unexpected tide 'cut' (lower tide than predicted due to meteorological conditions) or a delay in the passage to Boston. Other reasons for holding ships at anchor would be due to adverse weather conditions, including wind and fog. A ship may also wait at anchor (or in the wet dock) whilst awaiting orders from their owners on their next port of call.
- 8.8 Vessels may temporarily hold position in the river, awaiting other ship movements (passing), or slow down to transit with the rising tide but the durations are brief.

9.0 Overall Impact of Increase in Shipping Numbers

- 9.1 As noted above, it is recognised that there will be likely some impact on the fishing vessels and other commercial cargo traffic due to the re-introduction of vessel turning in the river, but this was the case in the recent past and the Port sees no obstacle to the safe and efficient manoeuvring of the increased shipping numbers. Furthermore, the development of the Navigation Risk Assessment and Navigation Management Plan (post consent) provide a structured process that can be expected to improve opportunities to mitigate against any significant adverse impact on the movement of commercial cargo ships, fishing vessels and other marine traffic.
- 9.2 The Harbour Master's opinion has been expressed as:

"The introduction of an additional 580 ships from our current number of 450 / 460 is a large increase and worthy of looking closely at how this will affect the daily movement of river traffic, but as similar numbers have been experienced in the past, the Harbour Authority are confident this can be managed in a safe and efficient manner with little adverse effect on the fishing fleet or other river traffic."