WRITTEN REPRESENTATIONS

ON BEHALF OF PORT OF TILBURY LONDON LIMITED AND LONDON GATEWAY PORT LIMITED

REGARDING AN APPLICATION FOR A DEVELOPMENT CONSENT ORDER IN RESPECT OF THE PROPOSED THANET EXTENSION OFFSHORE WIND FARM

DEADLINE 1 (15 JANUARY 2019)

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1. Introduction

Port of Tilbury London Limited (POTLL – 'Other Person' reference: TEOW-OP006) and London Gateway Port Limited (LGPL – Registration No. 20011837) are hereinafter jointly referred to as the Interested Parties (IPs) and have prepared this joint Written Representation (WR) relating to an application by Vattenfall Wind Power Limited for an order granting Development Consent for the Thanet Extension Offshore Wind Farm (TEOWF).

This WR incorporates a response to the Hearing Action Points from the Issue Specific Hearing 2 (ISH2) as set out by the Examining Authority (EXA) in a document published on 17th December 2018 (Document Reference; EV-003) (see **Appendix A**). A separate document, dated 15th January 2019 provides responses to the EXA's first written questions, issued on 18th December 2018.

2. Background

2.1 Port of Tilbury London (POTL)

POTL is the largest enclosed deep water shipping port closest to the centre of London and also has a number of river berths that support port operations. The Port is a multi-purpose, multi-commodity port handling a wide range of commodities serving a number of markets including construction, agriculture and waste products.

The location of POTL is indicated on the plans provided at **Appendix B.** Sitting on the north bank of the Thames just 22 nautical miles east of central London, it is perfectly placed to handle cargo for London and the rest of the South East, with easy access to the M25 and 18 million people within 75 miles.

POTL currently handles over 12.8 million tonnes of cargo per annum across a high number of operational berths. The port is also the home of a number of tenant operations such as the NFT Chilled distribution centre, Cemex cement manufacturing facility that can produce 1 million tonnes of cement per annum and a large scale glass recycling facility operated by URM, a leading global glass recycling organisation serving both the UK and international markets.

The largest grain import and export facility in the UK is located within POTL and is operated by POTLL.

POTLL is awaiting determination of an application for development consent for the construction of a new port facility (known as Tilbury2) located adjacent to the existing port. The Examining Authority issued a Recommendation Report to the Secretary of State on 20 November 2018 and the deadline for the Secretary of State to make his decision is 20th February 2019. If granted consent, Tilbury2 will result in a significant increase in the total tonnage handled through the combined operation, with the Tilbury2 facility being a dedicated Ro-Ro and CMAT (Construction Materials and Aggregates Terminal).

Having completed the development of London Distribution Park just outside the port (home to the largest Amazon warehouse in the UK), POTLL has options over further land in close proximity to POTL to facilitate further development of distribution park facilities and POTL as a whole.

2.2 DP World London Gateway (DPWLG)

The DPWLG development comprises two elements: (a) a deep sea shipping container port (LG Port); and (b) a logistics park (LG Park). LG Port is located on the north banks of the River Thames at Stanford-le-Hope, Essex with LG Park located directly adjacent on land to the north which was formerly occupied by the Shell Haven oil refinery. A site location plan is provided at **Appendix C**.

LG Port was consented by The London Gateway Port Harbour Empowerment Order 2008 (Reference SI 2008, No.1261) (the HEO), which was made on 2nd May 2008 and came into force on 16th May 2008. It consents up to seven deep sea container berths serving primarily container (cellular) shipping vessels (or alternatively 6 berths plus a Roll on/Roll off (RoRo) facility) plus ancillary facilities including container handling equipment, container storage areas ('stacks'), two rail interchanges, operational buildings, a gate complex and service facilities including access ways and electricity sub-stations. Once fully developed LG Port will have a capacity of 3.5 million TEUs (Twenty Foot Equivalent container units) per annum. A link to the HEO is provided below:

http://www.legislation.gov.uk/uksi/2008/1261/pdfs/uksi_20081261_en.pdf

The first container berth was brought into operation in 2013 alongside the first rail terminal and a further two berths have since become operational. Current LG Port activities include the following:

- Mooring and unmooring of container ships
- Loading and discharging of containers from ships
- Loading and discharging of freight trains/HGVs
- Temporary storage of containers.

In the 2018 calendar year throughput equalled approximately 1.3 million TEU, equivalent to approximately 11 million tonnes of cargo.

LG Park was originally consented pursuant to an Outline Planning Consent (Reference 02/00084/OUT). This was, however, superseded by the London Gateway Logistics Park Local Development Order (the LDO), which was made by Thurrock Council on 7th November 2013. A link to the LDO is provided below:

https://www.thurrock.gov.uk/local-development-order/london-gateway-logistics-park

The LDO permits up to 829,700 square metres of industrial (use class B1(b), B1(c), B2 and B8) floor space within buildings with an individual floor area ranging from between 1,000 and 120,000 square metres each. A 'common user' rail terminal is also permitted. Currently the LG Park development comprises a total of approximately 113,000 sq.m of operational floor space within four buildings. A further three site buildings are committed and are expected to be brought into operational use later in 2019. Activities are those commonly associated with the stated type of 'B' Class development.

The location of LG Park directly adjacent to LG Port and its associated rail terminals allows significant supply chain efficiency benefits and facilitates a move to a 'just in time' approach to the supply of goods (a concept known as 'portcentrics'), to the benefit of regional and national trade competitiveness.

3. Relevant Policy and Guidance

3.1 National Policy Statement for Ports

As contended by POTLL and DPWLG at the Preliminary Meeting on 11 December 2018, the National Policy Statement for Ports (Ports NPS) should be taken into account in respect of the TEOWF DCO examination and is relevant for the reasons outlined below.

The Ports NPS was designated by the Department for Transport in January 2012 and sets national objectives and policy for the development of ports and port facilities above stated thresholds, comprising Nationally Significant Infrastructure Projects (NSIPs). Both POTL and DPWLG exceed such thresholds. The Ports NPS sets out the Government's conclusions on the need for new port infrastructure, considering the current place of ports in the national economy, the available evidence on future demand and the options for meeting future needs.

The Ports NPS discusses current (at the time of publication) levels of UK trade and anticipated growth in UK trade in the period to 2030. It identifies that:

- approximately 95% (by volume) and 75% (by value) of all UK trade in goods is handled by ports (Para 3.1.3)
- Total import/export of goods is concentrated in a handful of ports with the top 15 UK ports accounting for almost 80% of total tonnage (Para 3.2.1)
- The largest container and roll on/roll off (Ro-Ro) terminals are in the South East of England (Para 3.4.11)
- Recent consents for container developments have been in or near deep-water ports in the main coastal and estuarial locations (Para 3.4.11).

In this context the Ports NPS set out Government policy for ports, including to:

- *"encourage sustainable port development to cater for long-term forecast growth in volumes of imports and exports by sea with a <u>competitive and efficient port industry</u> capable of meeting the needs of importers and exporters <u>cost effectively and in a timely manner</u>, thus contributing to long-term economic growth and prosperity;*
- *<u>Ensure competition</u> and security of supply; and*
- *<u>Enhance access</u> to ports and the jobs, services and social networks they create, including for the most disadvantaged"* (Para 3.3.1 and 3.3.3 - our underlining).

In setting the above policies the Ports NPS confirms the Government's recognition of "*the essential contribution to the national economy that international and domestic*

trade makes." (Para 3.3.6) It states that "*for an island economy, there are limited alternatives available to the use of sea transport for the movement of freight and bulk commodities. Air freight is often used for high-value items and express deliveries, and the Channel Tunnel has a significant role in freight as well as passenger transport. But these alternatives are constrained by the volumes that can practically be carried by air, the capacity of the rail links through the tunnel and in the case of aviation the cost and environmental disadvantages. As a consequence, shipping will continue to provide the only effective way to move the vast majority of freight in and out of the UK, and the provision of sufficient sea port capacity will remain an essential element in ensuring sustainable growth in the UK economy"* (Para 3.1.4).

Furthermore, in concluding on the need for new port capacity, Para 3.4.16 states *"Against this background, and despite the recent recession, the Government believes that there is a compelling need for substantial additional port capacity over the next 20 – 30 years, to be met by a combination of development already consented and development for which applications have yet to be received. Excluding the possibility of providing additional capacity for the movement of goods and commodities through new port development would be to accept limits on economic growth and on the price, choice and availability of goods imported into the UK and available to consumers. It would also limit the local and regional economic benefits that new developments might bring. Such an outcome would be strongly against the public interest"* (our underlining).

The Ports NPS also discusses the need for competition and the importance for UK ports to be competitive, both with each other and ports in continental Europe (Para 3.4.13) as a mechanism to drive efficiency and reduce supply chain costs. It also cites the need for resilience to account for *"short term demand peaks, the impact of adverse weather conditions, accidents, deliberate disruptive acts and other operational difficulties without causing economic disruption through impediment to the flow of imports and exports"* (Para 3.4.15 – our underlining).

3.2 National Policy Statement for Renewable Energy Infrastructure (EN-3)

EN-3 taken together with the Overarching National Policy Statement for Energy (EN-1), provides the primary basis for decisions by the Secretary of State on applications for renewable energy NSIPs. EN-3 identifies a number of considerations in respect of navigation and shipping which are addressed from paragraph 2.6.147 to 2.6.175.

EN-3 provides that: *"to ensure safety of shipping, it is Government policy that wind farms should not be consented where they would pose unacceptable risks to navigational safety after mitigation measures have been adopted"* (Para 2.6.147).

It sets out the need for applicants to establish stakeholder engagement with interested parties in the navigation sector early in the development phase of the proposed offshore wind farm and states that: *"such engagement should be taken to ensure that*

solutions are sought that allow offshore wind farms and navigation uses of the sea to successfully co-exist" (Para 2.6.153).

Importantly it recognises that:

"the [Secretary of State] should not grant development consent in relation to the construction or extension of an offshore wind farm if it considers that interference with the use of recognised sea lanes essential to international navigation is likely to be caused by the development. The use of recognised sea lanes essential to international navigation means:

> *(a) anything that constitutes the use of such a sea lane for the purposes of article 60(7) of the United Nations Convention on the Law of the Sea 1982; or*
>
> *(b) any use of waters in the territorial sea adjacent to Great Britain that would fall within paragraph (a) if the waters were in a Renewable Energy Zone (REZ)"* (Para 2.6.161).

EN-3 also sets out that disruption or economic loss to shipping and navigation should be taken in to account by the Secretary of State in decision-making:

"The [Secretary of State] should be satisfied that the site selection has been made with a view to avoiding or minimising disruption or economic loss to the shipping and navigation industries with particular regard to approaches to ports and to strategic routes essential to regional, national and international trade, lifeline ferries and recreational users of the sea. Where a proposed development is likely to affect major commercial navigation routes, for instance by causing appreciably longer transit times, the [Secretary of State] should give these adverse effects substantial weight in its decision making. There may, however, be some situations where reorganisation of traffic activity might be both possible and desirable when considered against the benefits of the wind farm proposal. Such circumstances should be discussed with the MCA and the commercial shipping sector and it should be recognised that alterations might require national endorsement and international agreement and that the negotiations involved may take considerable time and do not have a guaranteed outcome." (Para 2.6.162 – our underlining).

3.3 A Study of England's Port Connectivity

In April 2018 the Department for Transport published a document titled "*Transport Infrastructure for our Global Future – A Study of England's Port Connectivity*" (the Study). The Study sought to raise awareness and appreciation of the vital contribution ports make to the national and regional economies and to consider the need for improved access to ports. Whilst the Study relates predominantly to inland surface access, along with the accompanying "*9 regional case studies*" document (the case studies document) it provides an up to date insight into the contribution ports make to the national economy. In particular, the Executive Summary of the Study identifies that:

- In 2016 ports in England handled a total of 337 million tonnes of freight
- Currently the UK ports sector directly contributes £1.7 billion to the UK economy, rising to £5.4 billion when factors such as supply chains are considered.

The case studies document identifies that England's ports account for an estimated £6.1 billion GVA and that of this 'London ports' contribute £2.1 billion, by far the largest of the 9 regions studied with the next closest region (the north-west) contributing £960 million. London ports also account for 20,000 of the total of 79,000 port-related jobs in England (Page 4 - 2015 figures).

Page 6 of the case study provides examples of recent or planned port investments. It is to be noted that the two largest examples cited, in terms of value of investment are "*London Gateway"* with a total investment of £1.5 billion and "*Tilbury*" with a total investment of £1 billion. The next closest example is in Liverpool at a total of £500 million.

4. Response to the Application for Development Consent

At the outset it is to be clarified that the IPs were not contacted by the Applicant or its agents with regard to the preparation of any of the application supporting assessment or evidence – this is contrary to EN-3. Additionally, the IPs were not included in the statutory pre-application consultation. The IPs first became aware of the proposals following the application for development consent, having been alerted by the Port of London Authority (PLA).

Given the above, the IPs were afforded no opportunity to contribute to the development of application evidence or supporting assessment and have had a limited opportunity to scrutinise the information now submitted with the application for development consent. Notwithstanding this the IPs are concerned that the proposals are likely to result in significant impacts on commercial shipping, with resulting impacts on the efficient operation and thus competitiveness of their respective port and logistics facilities, contrary to the objectives of the Ports NPS and EN-3. Such impacts comprise the following components:

- Increased journey distance and duration for certain types of vessels, and during certain sea conditions, resulting from a reduction in navigable width of the 'inshore channel'
- Reduced accessibility to the NE Spit pilot boarding station as a result of the reduction in navigable width of the inshore channel, and thus reliance on alternate routes/pilot boarding stations which may give rise to additional congestion and journey distance/duration (for ships and pilots)
- Reduced resilience to adverse weather conditions and sea states as a result of the inability to utilise safely the NE Spit pilot boarding station by certain types of vessels.

Without further evidence to the contrary, it is considered that such impacts could damage competitiveness to the extent that it materially and negatively affects the decision of shipping companies to ship goods to ports located within the Thames estuary.

Quantifying the types of vessels that the above matters would impact upon requires detailed assessment, taking account of a number of influencing factors. Such is considered to be the purpose of the Applicant's Navigational Risk Assessment (NRA) (Document Reference: APP-089), associated Pilot Transfer Bridge Simulation Report (PTBSR) (Document Reference: APP-090) and relevant sections of the Environmental Statement submitted in support of the application including Volume 2, Chapter 1: Project Description (Offshore) (Document Reference: APP-042), Volume 2, Chapter 10: Shipping and Navigation (Document Reference: APP-051), Annex 11-1: Radar Line of Sight Analysis (Document Reference: APP-123) and Safety Zone Statement (Document Reference: APP-132).

The review of relevant policy and guidance in section 3 of this representation highlights the essential contribution UK ports, and in particular London ports, make to the national economy. It highlights that 'London ports' handled 18% of the total UK imports/exports in 2016, and accounted for 34% of the total contribution of ports to GVA in England in 2015. Indeed, the IPs' response to the EXA's ISH2 Hearing Action Point number 3(a) (see

Appendix A) highlights that, if the 2016 figures for total UK imports/exports are taken as indicative of 2018 levels, POTL and DPWLG alone provided approximately 7% of total UK port capacity (12.84 million tonnes (POTL) plus 11 million tonnes (DPWLG) as a percentage of 337 million tonnes (see Section 3.2)).

Given the above, the IPs contend that it is of critical importance that the NRA and PTBSR provide a robust assessment of the potential implications of the proposed development on shipping and that such assessment informs further assessment of economic impacts on shipping and port activities. It is the IPs' view that such an economic assessment should be submitted by the Applicant as additional information to inform the application.

The IPs are continuing to scrutinise the NRA and PTBSR. Initial review, however, gives the IPs reason to believe that these documents have failed to consider a number of relevant factors. In particular, the NRA:

- Recommends the implementation of a Vessel Management System (VMS) and highlights that this could be provided by the PLA but (a) fails to acknowledge that the management of shipping in the vicinity of the proposed TEOWF is currently outside of the jurisdiction of the PLA; and (b) fails to set out viable proposals for the implementation and management of such a system
- Proposes that the NE Spit pilot boarding station be relocated into more open water, thus reducing the resilience of pilot boarding operations in adverse weather conditions or sea states
- Acknowledges that the Pilot Transfer Bridge Simulation Report identified a reduced margin for error for shipping and pilotage activities, resulting in an increase in potential unsafe incidents of approximately 54%, but fails to set out viable proposals for the implementation of appropriate mitigation.

With regard to the PTBSR, the IPs highlight a number of shortcomings in the approach to simulations within their response to the EXA's ISH2 Hearing Action Point number 17 (see **Appendix A**).

To support consideration of economic impacts on shipping and port activities, in response to the EXA's ISH2 Hearing Action Points (**Appendix A**), the IPs have provided the following information:

- Current port throughput (See Item 3(a))
- Forecast year on year growth (See Item 3(a))
- Intended and potential changes in the vessel traffic mix (see Item 3(c)
- Current and future anticipated maximum draft of vessels (see Items 3 (d) and (e))
- Evidence to inform assessment of additional journey duration/distance for ships unable to utilise the inshore channel during the construction and/or operation of the TEOWF (see Annex 3 to Appendix A of this document).

Information to inform a viable assessment of the number and type (i.e. size) of ships that:

(a) currently utilise the inshore channel;

(b) currently utilise the NE Spit pilot boarding station during different weather conditions and sea states; and
(c) would be unable to utilise the inshore channel or NE Spit pilot boarding station during various different weather conditions and sea states,

is not held by the IPs and has not been made available to the IPs in order to inform this representation. However, the IPs understand that such information is available among the wider UK maritime and shipping community and are in discussions with other Interested Parties regarding its provision to inform the ongoing Examination process. Without such an assessment of economic impacts, the IPs contend that the EXA will be unable to consider the effect of the proposals on London and wider UK port competitiveness, which is critical to the regional and national economy in the context of the TEOWF application for development consent.

In response to Item 7 of the ISH2 Action Points (see Annex 4 to Appendix A of this document), the IPs have identified proposed amendments to the application's Order limits unless suitable assessment, including in relation to economic impact, demonstrates that the effects of the application are acceptable. Such a reduction in the Order limits is considered at this stage to be the minimum required to maintain access for shipping via the inner channel and to maintain the existing levels of operational use and efficiency of the NE Spit pilot boarding station. The IPs understand that such amendments are endorsed by the Port of London Authority, Estuary Services Limited and the UK Chamber of Shipping.

5. Conclusions

The absence of any consultation in advance of the application for development consent has resulted in the IPs having no opportunity to contribute to the development of the application's supporting assessments, with the result that those assessments are considered inadequate in addressing the IPs' concerns.

As discussed within the Ports NPS, ports play an essential role in supporting the regional and national economy and need to operate efficiently in a highly competitive environment. A study of England's Port Capacity developed by the Department for Transport in 2018 demonstrates that ports accessed via the Thames estuary ('London Ports') including POTL and DPWLG, contributed 34% of the total contribution of ports to GVA in England in 2015 and handled 18% of total UK imports and exports in 2016. EN-3 recognises that minimising disruption or economic loss to the shipping and navigation industries is a key point to be given substantial weight by the Secretary of State in DCO decision-making.

Given the above, it is considered critical that the application for development consent is informed by a robust assessment of the impacts on shipping and port activities, including the ability of ports located along the Thames estuary to operate in an efficient and competitive manner, and the wider economic impacts of any restrictions the proposals may place on such activities. The IPs are of the view that the current supporting assessments are not sufficiently extensive and robust.

In the absence of suitably robust assessments which demonstrate that no material impacts would occur in terms of shipping and thus port efficiency and competiveness or the wider regional and UK economy, the IPs have proposed an amendment to the Order limits which they consider would remove the potential for such impacts and mitigate their concerns.

APPENDIX A – Response to the EXA's ISH2 Hearing Action Points

APPENDIX B – Plans indicating the location of POTL

APPENDIX C – Plan indicating the location of DPWLG

APPENDIX A

Thanet Extension Offshore Wind Farm

Response to Hearing Actions Points on behalf of Port of Tilbury London Limited (POTLL) and London Gateway Port Limited (LGPL)

This document responds to the Hearing Action Points arising from the Issue Specific Hearing 2 (ISH2 - Marine, Shipping, Navigation and Safety Issues) held on 12th December 2018, as set out in a document published by the Examining Authority (EXA) on 17th December 2018 (Document Reference: EV-003).

For clarification the following sections utilise the EXA's referencing and, for convenience, begin by setting out the Action Point title and specified action (in blue type). Only actions directed at all hearing participants, POTLL or LGPL are addressed herein.

Whilst POTLL and LGPL are responding jointly, the responses to certain action points are specific to the individual port circumstances. Therefore, for those actions, separate responses are provided.

1. Written Summaries of Oral Submissions

All participants of ISH2 are to provide a written summary of their oral submissions, cross referenced as relevant to the matters addressed in this action list.

Joint verbal representations were made at ISH2 on behalf of POTLL and LGPL. A Written Summary of Oral Submissions is provided at **Annex 1** to this Appendix and was provided separately to the Applicant on 7 January 2019 as agreed at ISH2.

2. Initial Statement of Submissions: Port of Tilbury London Ltd (PoTLL)

PoTLL is an 'Other Person' and has not made a relevant representation. It is requested to submit an initial statement of submissions providing information equivalent to a relevant representation, amounting to a summary statement of case and principle issues relevant to its case.

A statement of submissions on behalf of POTLL is provided at **Annex 2** to this Appendix.

3. Effects on Ports and Harbours

For each of London Gateway Port Ltd (LGPL), PoTLL and for other port facilities within the Port of London Authority (PLA) area that concern the PLA, please provide a table with supporting explanatory text showing:

(a) A **port baseline position** for the most recent fully reported year in terms of:

- annual tonnage;
- split between bulk tonnage and containers (container traffic is conventionally recorded in Twenty Foot Equivalent Units (TEU));

A breakdown of total throughput at Port of Tilbury (PoT) and DP World London Gateway (DPWLG) for the 12 month period from 1st December 2017 to 30th November 2018 is provided within Table 3.1.

Table 3.1 – Total throughput

Cargo Type	POTL	DPWLG
Containers (TEU)	522,700	1,319,801
Bulk (Tonnes)	8,146,000	0
Total (Tonnes)	12,840,400	11,000,000

(a) **Forecast growth** year by year commencing in 2019 within the reasonable planning time horizon (intended growth), taking account of organic traffic growth, vessel mix change trends and intended facility build-out that is within the scope of any existing consents;

A breakdown of the forecast year on year growth, based on total throughput (tonnes), for POT and DPWLG is provided within Table 3.2 for a reasonable planning time horizon of 20 years, being the period which the IPs are able to reasonably predict.

Table 3.2 – Forecast year on year growth

Year	Growth (%)	
	POTL[1]	DPWLG
2019	13.1	13.4
2020	16.8	11.4
2021	11.9	10.3
2022	6.2	8.2
2023	3.8	4
2024	3.8	4
2025	3.8	4
2026	3.8	4
2027	3.8	4
2028	3.8	4
2029	3.8	4
2030	3.8	4
2031	3.8	4
2032	3.8	4
2033	3.8	4
2034	3.8	3
2035	3.8	3
2036	3.8	3
2037	3.8	3
2038	3.8	3

[1] Year on year growth includes that forecast to be associated with the Tilbury2 development consent order proposals. For Tilbury2, the Examining Authority issued a Recommendation Report to the Secretary of State on 20 November 2018 and the deadline for the Secretary of State to make his decision is 20th February 2019.

(b) **Additional growth projections** within the reasonable planning time horizon (potential growth), arising from any proposed developments currently subject to development consent processes or provided for in strategic plans but not consented (for any such developments, please identify the stage to which plans have progressed as of 2019, an indicative commissioning and a completion year);

No additional year on year growth is forecast above that reported in Table 3.2. Please see footnote 1 to Table 3.2 in respect of Tilbury2.

(c) Intended and potential changes in the **vessel traffic mix** using the port within the reasonable planning time horizon;

POTL

With regard to the existing POTL, facility vessel sizes are dictated largely by the existing berth and lock sizes and thus any significant change in vessel traffic mix is not anticipated.

The existing berth and lock sizes at POTL currently allow for a maximum vessel draft of 12.5m.

Some of the growth in total throughput and the number of ship calls at POTL will be the result of the Tilbury 2 proposals, which will facilitate deeper draft ships (see response to 3(e) below).

DPWLG

LGPL expects to see an increase in the number of ultra large container vessels visiting DPWLG, with an additional 2-3 services per week of vessels of 400m and 16.5m in draft in the next 2 years. Beyond this date, further large vessels are expected but globally it is LGPL's understanding that there are no container vessels presently being constructed that exceed these dimensions. However, the expectation is that the smaller container vessels will be progressively replaced by mid-size vessels (c. 280-320m LOA).

(d) **maximum draft of vessels** currently able to access the port;

POT - 12.5m DPWLG - 16.4m

(e) Intended and potential changes in the **maximum draft of vessels** using the port within the reasonable planning time horizon;

POT - 15m (assuming that Tilbury 2 is granted development consent and is constructed)

DPWLG - 17.5m – 18m

(f) Any **capital dredge proposals to deepen existing channels** to enable access by deeper draft vessels within the reasonable planning time horizon and an indicative year at which such access might become available;

Neither POTLL nor LGPL have any current plans for capital dredging to deepen existing channels aside from those proposed within the Tilbury2 DCO application. Typically dredging is not planned more than five years in advance of commencement.

(g) Any **capital dredge proposals to widen or make new channels** to increase capacity, rationalise or reduce the access distance to the port by any vessels within the reasonable planning time horizon and an indicative year at which such access might become available;

There are currently no planned proposals to be implemented by POTLL or LGPL. We are not aware of the details of any dredging activity that the PLA may have planned.

(h) A statement of the **number of ships projected to be diverted** per annum where this is alleged to be due to the construction of the Thanet OWFE - provided for a notional base year of 2020 in which the OWFE might commence construction and for subsequent years within the reasonable planning horizon and setting out a basis for the suggested need for diversion;

The number of ship calls to POTL and DPWLG in the year to 30/11/18 was 3533 and 1054 respectively. It is considered that an informed assessment of the number of ships projected

to be diverted requires historical information regarding the routing of ships. Neither POTLL nor LGPL receives or holds such information but are of the understanding that it is available within the wider UK shipping and maritime community and are in discussion with other Interested Parties regarding its provision to inform to ongoing Examination process.

(i) An **aggregate analysis of projected additional time and distance** required for diverted ships to access the port per annum,

[additional time (hours) and additional distance (nm) x ships subject to the restriction (Number)]

where this is alleged to be due to the construction of the Thanet OWFE - provided for a notional base year of 2020 in which the OWFE might commence construction and for subsequent years within the reasonable planning horizon; and

For the reasons discussed in response to 3(h) above POTLL and LGPL are unable to provide an assessment of the 'number of ships projected to be diverted' at this time and thus an assessment of additional time and distance is not currently viable. However information regarding the additional distance travelled and journey duration per ship is provided within **Annex 3** of this appendix. Such information suggests that each ship diverting from the inner channel (to route west and north of the proposed TEOWF) will travel an additional 14.4NM, which is equivalent to an additional steaming time of approximately 1 hour.

(j) Projected **aggregate additional shipping operating costs** per annum alleged to be caused by (h) and (i), for the base year and subsequent forecast years within the reasonable planning horizon.

For the reasons discussed in response to 3(h) above POTLL and LGPL are unable to provide an assessment of the 'number of ships projected to be diverted' at this time and thus an assessment of additional shipping operating costs is not currently viable. However, Table 3.3 below provides the results of an assessment of average hourly costs for ships under steam, for various ship size ranges.

Table 3.3 – Average hourly costs of a ship under steam

Ship Size	Operating costs (per hour)
<200m	$1,200
250m / 4,000TEU	$1,500
300M / 8,000TEU	$2,200
350M / 10,000TEU	$2,800
400M / 20,000TEU+	$4,000+

4. Consideration of Thanet OWFE in Tilbury 2 NSIP Application Documents

Please submit the Tilbury 2 NSIP examination document library as an entry to the examination document library for this examination.

The Tilbury 2 NSIP examination document library can be accessed using the following link:

https://infrastructure.planninginspectorate.gov.uk/projects/south-east/tilbury2/

Please identify if and if so where in the Tilbury 2 NSIP Application and Examination document set the effects of the Thanet OWFE proposal were addressed.

The Thanet OWFE was not taken into account as a project considered in the assessment of cumulative effects for the Tilbury2 DCO application. Table 2.2 on page 2-11 of the Environmental Statement (Port of Tilbury Examination Library Document Reference: T2: APP-031) that supported the Tilbury2 NSIP application does not include a reference to Thanet OWFE, nor is it included within a longer list of projects specifically considered in respect of marine ecology impacts, and it

was not an issue raised during the Tilbury2 DCO Examination. In particular, the assessment of navigational impacts, including the Navigational Rick Assessment, was confined to the impact at the Tilbury2 site and associated berths.

Where any hearing participants refer to shipping traffic forecasts or projections taking account of the potential development of Tilbury 2, these are requested to be based on data available in the Tilbury 2 NSIP application document library.

Information provided herein with regard to shipping traffic forecasts is consistent with the Tilbury 2 DCO application.

Where any hearing participants cite an individual reference within the Tilbury 2 NSIP examination document library, please identify the relevant document by name, PINS library document reference [in square brackets] but appending the prefix T2, document section and/or page number.

This is noted for all future submissions.

6. Use of the inshore vs offshore channels and effects of diversions

Please provide evidence to support the assertion that the Thanet OWFE will entail a 90 min / 25 nm increase in approach or departure for shipping.

A full assessment by POTLL and LGPL has now identified a 14.4NM diversion distance. This is evidenced by the information provided in **Annex 3** of this appendix.

(a) What assumptions are made about the size, draft and channel routing of vessels leading to this conclusion;

The 14.4NM diversion indicated on the information provided at **Annex 3** is based upon the 'inshore channel' currently being available to vessels with drafts of between 6.7m and 11.5m. This is based on a 10m charted depth with a 4.8m maximum tide height and a minimum 1.3m under keel clearance.

(b) What are the fuel cost consequences of this diversion;

Please see response to Item 3(j) above.

(c) What if any relevant additional air emissions and/or air quality effects might flow from this diversion; and

POTLL and LGPL do not have the information necessary to allow them to comment with regard to air quality impacts.

(d) If there is a Fisherman's Gat capital dredge proposal, could it mitigate this diversion and if so, to what extent?

POTLL and LGPL understand that such proposals are being developed by the Port of London Authority (PLA) but have no detailed information at this time. As such they defer to the PLA to respond on this point and can comment as necessary once more information is made available by the PLA.

7. Red Line Boundary (RLB) Reduction Requests

Where proposals to reduce the extent of proposed array area within the Thanet OWFE RLB were made at ISH2, parties making such requests are asked to provide:

- A plan based on the Sea Zones Plan [OD-008] identifying the extent of the proposed reduction;

A plan identifying the extent of POTLL's and LGPL's proposed reduction in the Order limits is provided within **Annex 4** of this Appendix.

A written justification, explaining and evidencing the need for the extent of the proposed reduction**.**

Please refer to information provided within **Annex 3** of this appendix relating to available channel widths during construction of the TEOWF.

10. Marine Guidance Note (MGN) 543 Compliance

Any allegations of MGN 543 non-compliance on the part of the consulting team for the Applicant in the preparation of the NRA [APP-089] in terms of guidance and methodology should be documented.

POTLL and LGPL are in the process of reviewing the NRA in the context of MGN543 and other relevant documentation and may comment further as the examination progresses. However, they would highlight at this stage paragraph 4.1 of the MGN which states "*Evaluating the impact of OREI schemes on existing port/harbour activities should be carried out in consultation with the relevant port/harbour authority and the wider port community*".

They highlight that neither POTLL nor LGPL has been consulted regarding the OWFE proposals either during the development of the NRA or during the statutory consultation period prior to the DCO application. This is particularly relevant as they believe such guidance was intended to ensure that interested parties' views were considered in the development of NRAs and that interested parties had ample time to consider such an assessment and to offer comment.

11. The RLB and Safety Zones

Please provide submissions (referencing a schematic diagram showing the relationship between a turbine foundation and the RLB) on the question of whether a safety zone may occupy waters outside the RLB.

Please refer to information provided within **Annex 3** of this appendix relating to available channel widths during construction of the TEOWF.

If in your submission it can, please provide a plan showing the proposed RLB with an additional pecked boundary representing the aggregate maximum extent of waters outside the RLB that can be affected by safety zones.

Safety Zones are not constrained by the DCO's limits, as they are granted separately to the DCO process. The Limits of Deviation proposed by the Applicant allow turbines to be sited anywhere within the Order Limits. PoTLL and LGPL therefore contend that when considering the effect of the proposals on navigation-

(a) during construction, an additional 500m; and

(b) during operation, an additional 50m,

should be taken into consideration by the ExA.

14. North East Spit Sea Room

Please provide a revised schematic identifying the minimum post construction sea room at North East Spit for a representative range of vessel lengths and drafts, taking account of the state of tide, met-ocean conditions and crossing traffic.

The maximum length of vessel currently utilising the NE Spit is 400m. Boarding would typically occur at a speed of 6 knots and take around 15 minutes. During this process it is critical for the safety of the boarding operation that the ship travels on a steady course. Thus, the ship will travel approximately 1.5NM during the boarding process. An additional 1NM is required either side of the process for the ship to turn. Therefore a total of 3.5NM is required. This would extend to 3.8NM once the length of the ship is accounted for. However the OWFE proposals reduce available sea room to under 1NM. This is evidenced by the information provided at **Annex 3**.

Explain the factors relevant to the identified minimum distance.

Please refer to information provided within Annex 2 of this appendix.

Is it the case that the minimum distance will vary dependent on met-ocean conditions? If so, please explain that variation and what that might imply for the number of days per annum that the inshore channel at North East Spit is available for a representative range of vessel lengths and drafts.

The minimum distance will be affected by a range of factors including tide height, current and wind strength and direction, the presence of other vessels and their manoeuvring capabilities, water depth and tide conditions. It is considered that an informed assessment of the number of days that the inshore channel at NE Spit is available/unavailable requires historical information regarding routing of vessels and pilotage operations. Neither POTLL nor LGPL receive or hold such information but are of the understanding that it is available within the wider UK shipping and maritime community and are in discussion with other Interested Parties regarding its provision to inform to ongoing Examination process.

15. North East Spit as a Pilot Location for Deeper Draft Vessels in Adverse Met-Ocean Conditions

Is it the case that North East Spit Pilot Station is used by larger vessels in circumstances where other stations (eg Sunk) come off station due to adverse conditions?

The NE Spit station is used by vessels of all sizes in varying conditions depending upon the routing of the vessel. However, it is the understanding of LGPL and PoTLL that the NE Spit is relied upon when the Sunk is offline due to its increased resilience to adverse conditions.

If so, please explain what effect your conclusions on Action 14 might have for the number of days per annum in which such vessels will be able to access a Pilot? What implications would such change have for the Ports?

It is considered that an informed assessment of the number of days that the inshore channel at NE Spit is available/unavailable requires historical information regarding routing of vessels and pilotage operations. Neither POTLL nor LGPL receive or hold such information but are of the understanding that it is available within the wider UK shipping and maritime community and are in discussion with other Interested Parties regarding its provision to inform to the ongoing Examination process.

However, we contend that any delays to ship arrival/departure times will have significant knock-on impacts for the supply chain. It is anticipated that such impacts will increase in the future due to the trend towards a "just in time" approach to delivery. To clarify, 'just in time' delivery comprises a move away from the bulk purchase and importation of goods to be stored in a warehouse pending sale to the end consumer, to a system where goods are purchased/imported in much smaller quantities and thus reach the end consumer in a shorter time period. The benefits are a

reduction in required warehouse space. This approach also allows organisations to reduce the amount of capital committed prior to product sales. A 'just in time' approach also has significant benefits in relation to the transport of perishable goods or produce.

16. Masters' and Pilots' Opinion on Vessel Proximity to Operational WTGs

Provide a professional opinion on the closest safe distance between vessels and WTGs in an operational OWF. If relevant, please respond identifying the different distances relevant to a range of vessel lengths, drafts and changes in met-ocean conditions.

Based on the professional opinion of the respective Harbour Masters of the ports, POTLL and LGPL suggest a closest safe distance of 1NM.

17. Pilot Transfer Bridge Simulation Report

Please provide your assessment of the degree to which the Pilot Transfer Bridge Simulation Report [APP-090] can be relied upon or ascribed weight by the ExA. If you conclude that it is of limited reliability, please record your reasons for reaching this conclusion.

POTLL and LGPL are of the view that the Pilot Transfer Bridge Simulation report is of limited reliability due to the following factors:

- The simulations undertaken did not reflect the range of potential weather and sea state conditions that may reasonably be assumed to occur. For example, pilot boarding operations can take place in winds up to 75 knots. The simulations did not consider winds above 25 knots. This is particularly relevant as vessel leeway would be greater in higher winds, particularly at typical boarding speeds. Further commentary on the appropriate number of simulations and range of conditions to be considered is provided in response to the EXA's first written questions (Question 1.12.3(b))
- The simulations allowed 1 to 2 minutes for the pilot to board the ship. However, LGPL and PoTLL contend that the boarding process, which involves positioning of the pilot vessel, boarding, transfer of the pilot to the bridge, orientation and master/pilot briefing, would take a minimum of 15 minutes in practice
- The simulations did not consider the 500m safety zone (construction phase) which is material and needs to be taken into account in respect of available sea room (see our response to point 11 above in respect of the Order limits and safety zones)
- The simulation report concludes that measures would need to be developed however it does not define viable proposals for the implementation and management of such measures
- Simulations did not consider the presence of other craft (including fishing and leisure craft making way or at anchor)
- The simulations did not consider vessels in excess of 300m; the maximum length of vessel currently utilising the NE Spit is 400m.

18. PLA and Other Port / Services / Regulatory Risk Data

The NRA [APP-089] references Marine Accident Investigation Branch (MAIB) data in the range 1997 to 2015. To the extent that it was suggested that the PLA or any other Port or service provider holds any other relevant adverse event / risk logs or data sets that may not yet have been taken into account in the NRA, the extent and the availability of this data for analysis by the Applicant should be disclosed.

POTLL and LGPL do not hold any additional relevant adverse event/risk logs or data sets.

Social and economic effects on Ports, Shipping and Related Services

Please identify and to the extent possible, quantify any alleged residual effects from the construction, operation and decommissioning of the Thanet OWFE, and identify whether you consider these to be

relevant and important matters for consideration in the planning balance and acceptable or otherwise in terms of relevant NPS policy. Where effects are argued to be unacceptable, please provide reasons.

As discussed in Parts 3 and 4 of the associated Written Representations, POTLL and LGPL consider the Thanet OWFE to have the potential to significantly impact shipping, with a resulting significant impact on the efficient operation and competitiveness of POTL and DPWLG. It is to be noted that POTL and DPWLG currently provide approximately 4,100 and 1,000 direct jobs respectively. With committed and planned growth such figures are anticipated to rise to approximately 5,000 and 15,329 direct jobs with significant additional indirect employment opportunities arising. Thus, the potential exists for significant socio-economic effects on the local area and wider region.

Whilst unable to quantify the effects at this stage, POTLL and LGPL are also concerned that the impacts on use of the NE Spit pilot boarding station will result in a need for significant additional pilot resource which is unavailable in the short to medium term. In this regard we note the requirement for pilots to undertake 4 years of training before becoming suitably qualified to undertake operations.

APPLICATION BY VATTENFALL WIND POWER LIMITED FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE THANET OFFSHORE WIND FARM EXTENSION

ISSUE SPECIFIC HEARING 2 (ISH2) ON SHIPPING, NAVIGATION AND MARITIME SAFETY ISSUES

WRITTEN SUMMARY OF ORAL SUBMISSIONS

OF

PORT OF TILBURY LONDON LIMITED AND LONDON GATEWAY PORT LIMITED

DEADLINE 1 (15 JANUARY 2019)

Agenda Item/ Issue	Response	Relevant document references
(1) Welcome, introductions and arrangements for this Issue Specific Hearing 2 (ISH2)		
• In attendance on behalf of Port of Tilbury London Limited (PoTLL) and London Gateway Port Limited (LGPL): Trevor Hutchinson (TH Planning and Transportation); Colin Hitchcock (Harbour Master, LGPL); Geoff Holland (Harbour Master, PoTLL); Robbie Owen (Pinsent Masons LLP); and Matthew Carpenter (Pinsent Masons LLP).		

Agenda Item/ Issue	Response	Relevant document references
• **Robbie Owen** on behalf of LGPL and PoTLL explained that LGPL and PoTLL appeared at the hearings in their capacity as Interested Parties and Other Persons, respectively. The two parties were aligned in their position in respect of the Examination and a joint Written Representation (the Joint Written Representation) would be submitted to the Examination at Deadline 1. He agreed to provide an Initial Statement of Submissions for PoTLL (due to PoTLL not submitting a Relevant Representation) also to be submitted for Deadline 1. • He set out that PoTLL and LGPL are responsible for two major ports located on the river Thames, referred to below as, respectively, Port of Tilbury and London Gateway. Both ports therefore constantly use the shipping lanes in the vicinity of the proposed development and have a vested interest in safe and efficient navigation in and out of the Thames estuary. • **Mr. Owen** provided some initial information regarding both ports in terms of their location, capacity and status. He explained that this would be set out more fully in the Joint Written Representation; however, for context he explained that the two ports' combined capacity amounts to approximately two thirds of the cargo tonnage transiting the river Thames. • He agreed that LGPL and PoTLL's Written Summary of Oral Submissions would be provided to the Applicant by no later than 7 January 2018.		
(2) Effects on Ports, Harbours, Channels and Related Facilities **The ExA will ask IPs responsible for and operating any ports, harbours and channels to summarise their positions and to identify the following:**		
(a) What if any implications would the siting of the proposed development have on shipping inbound to or outbound from particular ports or harbours, on the use of navigation channels or any designated anchorages (and any foreseeable modifications to these facilities).	• **Robbie Owen** on behalf of LGPL and PoTLL explained that the concern of LGPL and PoTLL is that the siting of the proposed development would reduce the access to (and therefore competitiveness of) ports located on the river Thames including London Gateway and Port of Tilbury. • He explained that the proposals would cause an increased cost to shipping due to increased sailing distances which would be brought about by the proposed development. This increase was due to encroachment by the proposed development into existing shipping lanes and well established shipping routes, necessitating considerable re-routing of traffic. This would result in increased journey times (and associated fuel costs) and potential loss of well established trade. Essentially, the need to navigate around the development in addition to the increased costs of pilotage was a major concern for LGPL and PoTLL.	• Navigation Risk Assessment (Document Reference: APP-089) • Joint Written Representation

Agenda Item/ Issue	Response	Relevant document references
	• The proposed development would also cause a significant reduction in resilience to turbulent weather (with regard to pilot boarding) with a knock-on effect of potential delays and therefore further increased costs to shipping. There were potential implications for larger vessels wishing to access the North East Split pilot barding station, which LGPL and PoTLL understood would offer significantly restricted access should the development proposals go ahead. This would have the effect of lengthening pilotage distances and making piloting operations less resilient to adverse weather conditions. The increased costs outlined above would mean that the import/export of freight could become more costly and could therefore cause a detrimental effect on UK competitiveness. The overall result would be an adverse effect of the price of goods to UK markets. • **Colin Hitchcock** on behalf of LGPL and PoTLL explained that the site of the existing development, i.e. the current Thanet Offshore Wind Farm (OWF) is acceptable to LGPL and PoTLL as it allows masters of vessels to keep a safe distance from both the OWF and the Kent coast, ensuring that key shipping lanes remain open and utilised. If, however, the OWF was extended as proposed then there would not be sufficient safe sea room to navigate past the OWF between the OWF and the North Kent coast. • **Mr. Hitchcock** explained that LGPL and PoTLL did not agree with the conclusions of the assessment carried out in the Navigation Risk Assessment (Document Reference; APP-089) and that in his professional opinion, prudent mariners would not be happy to use the south-west shipping lane between the shore and the Order Limits of the proposed OWF. He explained that the practice and so expectation of a 50m safety zone during operation exacerbated the position and that in his professional opinion, no master of a vessel acting safely would wish to get anywhere near that close to a wind turbine, particularly considering that modern container vessels are up to 400m in length; greater clearance would therefore need to be allowed for in considering the effect of the proposed development on the narrowing of shipping lanes. • He added that the increased navigation time and distance which would be caused by the proposal was material and that it would impact heavily on whether ports within the river Thames were able to operate competitively or not.	

Agenda Item/ Issue	Response	Relevant document references
	• At the request of the **ExA**, **Mr. Owen** agreed that PoTLL and LGPL would include an estimate of the number of vessels passing through the channels impacted by the proposals in the Joint Written Representation. These figures would include figures taking into account proposed growth of the ports and would account for increased costs to the ports including additional steaming time and pilotage.	
(b) Whether they object to any extension of the Thanet Offshore Wind Farm in principle and if so, why.	• PoTLL and LGPL do not object to the extension of the Thanet OWF in principle however they contend that the current proposed siting is not acceptable. The general principle of an Offshore Wind Farm is perfectly acceptable to both PoTLL and LGPL however the likely detrimental effect of the siting of the proposed development means that it cannot be considered acceptable by port operators in the river Thames. As explained in more detail below, PoTLL and LGPL consider that the extent of the proposed development needs to be reduced in order to be considered acceptable to port operators on the river Thames.	
(c) Whether they consider that extension of the Thanet Offshore Wind Farm can in principle be made acceptable by mitigation and, if so, what that mitigation is and whether in their view any additional mitigation is required, over and above that offered by the Applicant.	• **Robbie Owen** on behalf of LGPL and PoTLL explained that PoTLL and LGPL consider that the proposed Thanet Offshore Wind Farm extension <u>can</u> in principle be made acceptable by mitigation. This mitigation would be for the Order Limits to be reduced to remove the areas of concern. • **Colin Hitchcock** on behalf of LGPL and PoTLL highlighted the problematic areas of the proposed Order Limits on the zones plan contained within the Navigation Risk Assessment and explained that there would need to be a significant reduction in the Order Limits with large areas of the proposed western and north-western boundary of the extension needing to be removed in order to avoid the key deep water shipping routes. LGPL and PoTLL would provide a plan of their proposal for reduction of the Order limits at Deadline 1 as part of the Joint Written Representation. • **Mr. Owen** added that it would be possible for the Secretary of State to amend the Order Limits however the ExA may need to consider whether it required additional environmental information in relation to a reduced scheme. • **The ExA** explained that as what was being suggested was a substantial reduction in the	• Navigation Risk Assessment (Document Reference: APP-089). • Joint Written Representation

Agenda Item/ Issue	Response	Relevant document references
	Order Limits, the Applicant would need to make a judgement in respect of the commercial viability of such a reduced scheme.	
(d) Whether they are neutral in respect of the proposed development.	• No – as set out above, LGPL and PoTLL have significant concerns in respect of the proposed development.	
(e) Whether they support the proposed development and if so, why.	• With the current proposed Order Limits in place, PoTLL and LGPL are not able to support the proposed development due to the concerns outlined above.	
(f) Any other items of concern relating to the effects of the proposed development on the operation of ports, harbours and channels.	• PoTLL and LGPL will set out their concerns in full in their Joint Written Representation.	• Joint Written Representation
(3) Effects in relation to Shipping Services and Interests **The ExA will ask IPs representing or providing services to shipping and navigation to summarise their positions and to identify the following:**		
(a) What if any implications would the siting and boundaries of the proposed development have on shipping routes and density of traffic.		
(b) What if any observations they have on the shipping route and density data employed in the ES and NRA.		
(c) Whether they object to any extension of the Thanet Offshore Wind Farm in		

Agenda Item/ Issue	Response	Relevant document references
principle and if so, why.		
(d) Whether they consider that extension of the Thanet Offshore Wind Farm can in principle be made acceptable by mitigation and, if so, what that mitigation is and whether in their view any additional mitigation is required, over and above that offered by the Applicant.		
(e) Whether they are neutral in respect of the proposed development.		
(f) Whether they support the proposed development and if so, why.		
(g) Any other items of concern relating to the effects of the proposed development on shipping		
(4) Effects in relation to Lights and Navigation ***The ExA will ask Trinity House and any other IP responsible for navigation aids, markers, buoys, radio, radar and related facilities to summarise their positions and to identify the following:***		
(a) Whether they object to any extension of the Thanet Offshore Wind Farm in principle and if so, why.		
(b) Whether they consider that extension of the Thanet		

Agenda Item/ Issue	Response	Relevant document references
Offshore Wind Farm can in principle be made acceptable by mitigation and, if so, what that mitigation is and whether in their view any additional mitigation is required, over and above that offered by the Applicant.		
(c) Whether they are neutral in respect of the proposed development.		
(d) Whether they support the proposed development and if so, why.		
(e) Whether there is a sound basis in the application document set from which to draw conclusions about radio and radar interference and its mitigation.		
(f) Noting Requirement 6 secures lighting for air navigation safety, whether any specific proposals for navigation safety require additional security in the Development Consent Order (DCO) or a Deemed Marine Licence (DML).		
(g) Any other items of concern relating to the		

Agenda Item/ Issue	Response	Relevant document references
effects of the proposed development on lights and navigation.		
(5) Effects in relation to Pilotage **The ExA will ask bodies and persons providing pilotage services to summarise their positions and to identify the following:**		
(a) What if any implications would the siting of the proposed development have on the provision of pilotage services.	• **Colin Hitchcock** on behalf of LGPL and PoTLL raised a concern in respect of the tight turnaround timings for shipping lines using ports and how this could be impacted by the proposal. He explained that in practice, shipping lines book a slot at ports for cargo to be unloaded and that it can be very difficult to accommodate them should a slot be missed. Delays caused by changes to the provision of pilotage services could therefore be detrimental to both port operators and users. • **Mr. Hitchcock** outlined concerns in respect of the Pilot Transfer Bridge Simulation Report (Document Reference: APP-090). He explained that a full response would be provided in the Joint Written Representation but in brief, he raised concerns in respect of the following factors: (1) the vessel speed of transfer; (2) the weather conditions; and (3) the sea states.	• Pilot Transfer Bridge Simulation Report (Document Reference: APP-090) • Joint Written Representation
(b) Whether they object to any extension of the Thanet Offshore Wind Farm in principle and if so, why.		
(c) Whether they consider that extension of the Thanet Offshore Wind Farm can in principle be made acceptable by mitigation and, if so, what that mitigation is and whether in their view any additional mitigation is required, over and above that offered by the Applicant.		

Agenda Item/ Issue	Response	Relevant document references
(d) Whether they are neutral in respect of the proposed development.		
(e) Whether they support the proposed development and if so, why.		
(f) Any other items of concern relating to the effects of the proposed development on pilotage services.		
(6) Maritime Safety: Working with the Environmental Statement (ES) and the Navigation Risk Assessment (NRA) **The ExA will ask the Applicant to explain the approach to risk assessment in relation to marine safety as documented in the ES and the NRA, with particular reference to the following:**		
(ExA's numbering) ***(f) The methodological basis for findings that marine risks have been reduced as low as reasonably possible (ALARP);***		
(g) The basis for the relationship between risks controlled to ALARP, tolerable risks and the consistency of approaches taken in relation to navigation risk and marine safety and the assessment of risk significance in the ES more broadly;		

Agenda Item/ Issue	Response	Relevant document references
(h) A review of the components of risks in the marine environment, to include consideration of effects on collision risk, contact risk and grounding risk and an explanation of embedded and any possible additional mitigation;		
(i) A review of the safety effects of the displacement of vessel traffic as an effect of the proposed development;		
(j) Other observations on the relationship between the ES, the NRA and EIA practice.		
IPs with interests in marine safety will be asked:		
(k) If they consider the identification, assessment and management of shipping and navigation risks in the ES and NRA to be sound?	• **Robbie Owen** on behalf of LGPL and PoTLL outlined that neither LGPL nor PoTLL were consulted before the DCO application was made by the Applicant and as such no opportunity was afforded to either port to comment on the draft Environmental Statement or the draft Navigation Risk Assessment. • **Mr Owen** outlined that there was a difference of view between the Applicant and the ports regarding the acceptability of risks assessed within the NRA. Such assessment of risk was a matter of judgement which LGPL and PoTLL would comment on in more detail in the Joint Written Representation.	• Joint Written Representation
(l) If so, what has led them to that conclusion?	• PoTLL and LGPL did not consider the identification, assessment and management of shipping and navigation risks in the ES and Navigation Risk Assessment to be sound for a	• Joint Written

Agenda Item/ Issue	Response	Relevant document references
	number of reasons which would be explained in more detail in the Joint Written Representation. In summary: (a) As set out in the NRA, to test whether pilotage could still be safely conducted at NE Spit with the extension in place, a simulation study was conducted with the PLA and ESL. The simulations carried out were based on vessels of up to 240 metres and even these simulations made boarding questionable. This is, however, more worrying when considering that PoTLL and LGPL are regularly visited by vessels of up to 400 metres. The simulation also took place in sterile conditions without fishing boats or leisure craft interrupting manoeuvres. The baseline conditions for the simulation were therefore inadequate and the testing of pilotage is insufficient. (b) The NRA states that the proposed extension of the wind farm with the revised redline boundary, i.e. the Order limits as now proposed in the application, without any additional traffic management or risk controls, would increase the collision risk within 5nm by 54%. This is not acceptable in the view of PoTLL and LGPL. (c) The simulation study reports that there will be reduced sea room as a result of the proposed development and PoTLL and LGPL are of the view that this will render Pilotage in the form currently provided untenable. (d) The NRA concludes (on the basis of the simulations) that pilotage would remain feasible, albeit with a reduced margin for error. This reduced margin for error is not acceptable in the view of PoTLL and LGPL. (e) The NRA states that the PLA Vessel Traffic Services system could manage the water space without reference to the fact that the present system is an information only system and a major financial injection	Representation • Navigation Risk Assessment

Agenda Item/ Issue	Response	Relevant document references
	would be required to upgrade to a full navigation safety system. (f) The submitted vessel traffic tracks highlight that with the present arrangements masters have adequate sea room to allow for a safe passage. With the inclusion of the additional turbines as a result of the proposed development, Masters would require additional sea room which would not be available.	
(m) If not and in respect of which particular elements of the risk assessment have they concluded that the treatment of marine risks is not sound?	• As above	
(n) In relation to (h), could additional mitigations satisfy any concerns raised?	• Yes - as explained above in response to 2(c) the proposed reduction to the western and north-western boundary of the proposed Order Limits in order to avoid shipping lanes would satisfy the concerns of PoTLL and LGPL.	
(o) If they consider that any additional information is required to enable the Secretary of State to conclude that maritime risks are appropriately managed and that relevant mitigation is in place?	• PoTLL and LGPL consider that it is necessary for the Applicant to revise the NRA in order to addresses the concerns stated. It is considered that the pilotage simulation was insufficient (as set out above) and this will therefore need to be repeated.	
(7) Any Other Marine and Related Considerations **The ExA may raise any other minor and consequential topics bearing on transboundary topics as is expedient, having regard to the readiness of the persons present to address such matters, including but not limited to:**		

Agenda Item/ Issue	Response	Relevant document references
(a) Economic and employment effects on marine industries.	• LGPL and PoTLL will provide further information on the economic and employment effects on marine industries in the Joint Written Representation.	
(b) Social and economic and employment effects on marine communities.		
(8) Procedural Decisions (If Required) **The ExA will review whether there is any need for procedural decisions about additional information or any other matter arising from Agenda items 2 – 7.** **Submissions will be sought from the Applicant and any relevant IPs or Other Persons before determining whether a decision may be required, what it might address and whether particular timescales for performance are required.** **If the ExA determines to make any procedural decisions it may make these decisions orally (subject to confirmation in writing) or may reserve its decisions to be made in writing after the closure of the hearing.**		
(9) Review of issues and actions arising **To the extent that matters arise that are not addressed in any procedural decisions, the ExA will address how any actions placed on the Applicant, IPs or Other Persons are to be met and consider the approaches to be taken in further hearings, in the light of issues raised in this hearing. A written action list will be published if required.**		
(10) – (11). Next steps and Closure of the hearing		

APPLICATION BY VATTENFALL WIND POWER LTD FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE THANET EXTENSION

OFFSHORE WIND FARM PORT OF TILBURY LONDON LTD (POTLL)

INITIAL STATEMENT OF SUBMISSIONS

DEADLINE 1 (15 JANUARY 2019)

1. As requested by the Examining Authority at Issue Specific Hearing 2 (ISH2) on Shipping, Navigation and Maritime Safety Issues, PoTLL has prepared this initial statement of its submissions providing information equivalent to a Relevant Representation, amounting to a summary statement of case and principal issues relevant to its case.

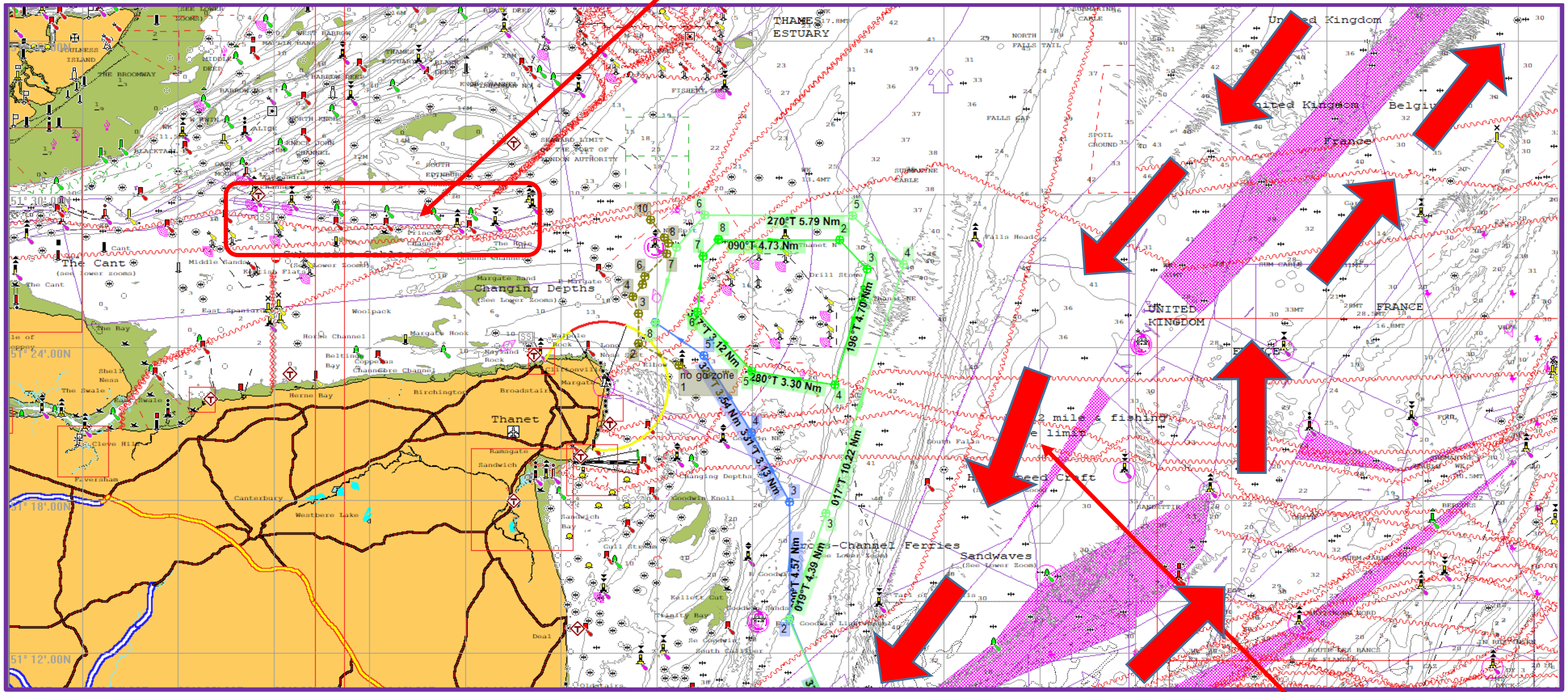
2. PoTLL wishes to align its position with the position taken by London Gateway Port Limited (LGPL) in its Relevant Representation dated 28 August 2018 (Examination Library Document Reference: RR-013).

3. PoTLL and LGPL intend to align their position throughout the Examination and have submitted a joint Written Representation for Deadline 1. This Written Representation sets out the joint position of PoTLL and LGPL in more detail.

Annex 3

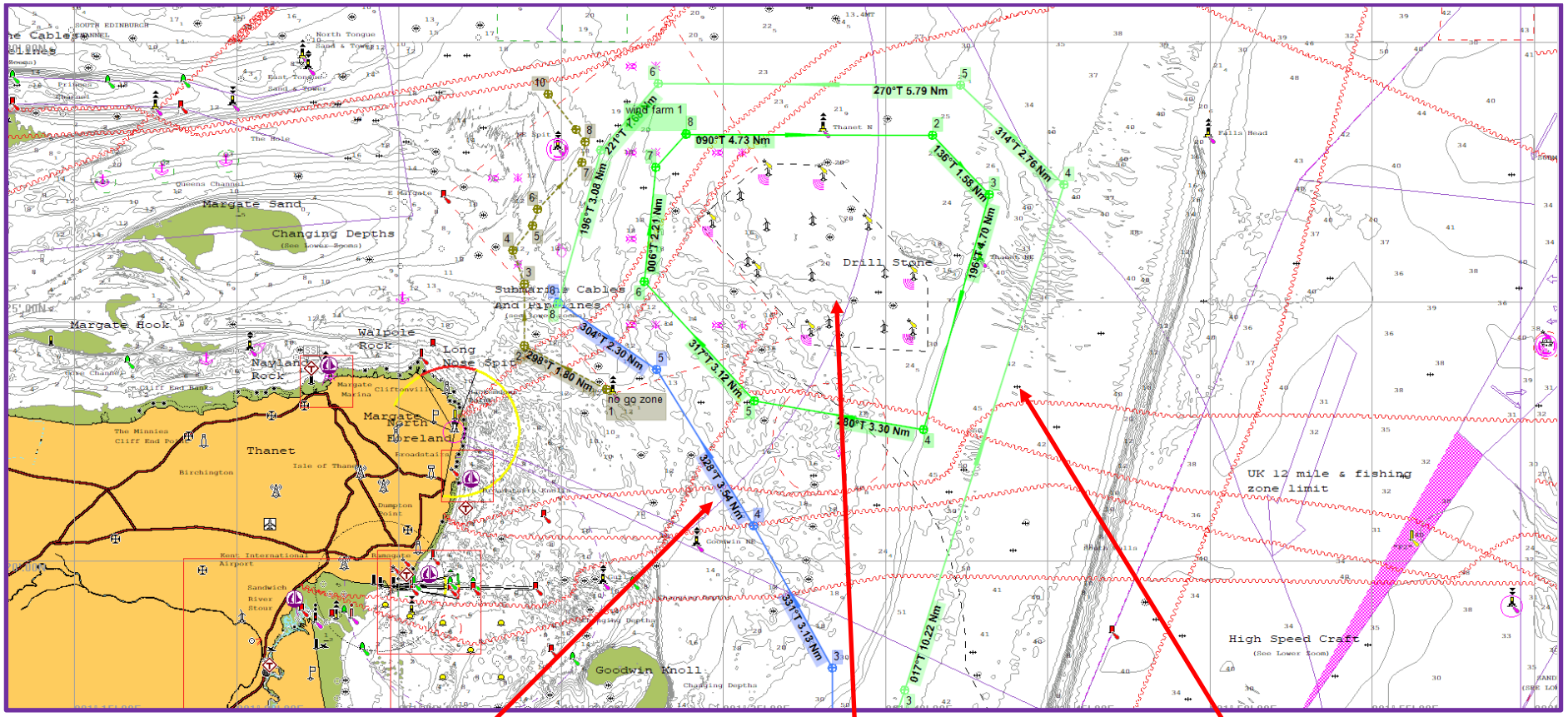
Comparison of distances to the NE Spit Pilot Station and pinch points caused by the proposed Thanet wind farm extension

Princess Channel



SW traffic lane, traffic heading south to Dover Straights.

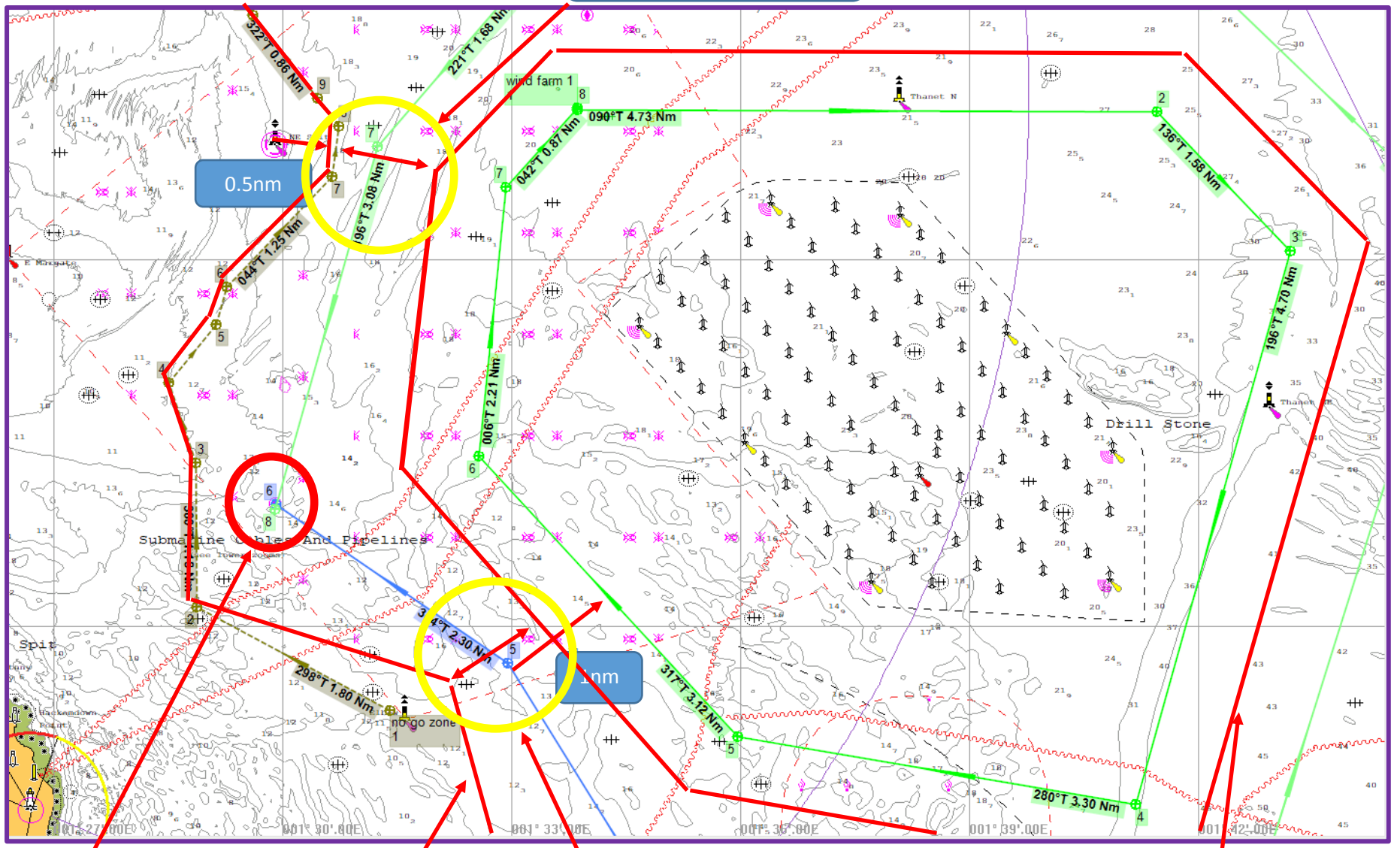
Busiest shipping lane in the world



SW route

NW route inbound

Thanet Offshore Wind Farm with Extension shown in green


Channel pinch point less than 0.8nm
0.5nm
1nm
NE Spit Pilot Station
Safety line which it would be advisable to avoid
Pinch point with less than 0.9nm
500m exclusion zone
wind farm 1
Drill Stone
Submarine Cables And Pipelines
no go zone
Spit
322°T 0.86 Nm
221°T 1.68 Nm
196°T 3.08 Nm
044°T 1.25 Nm
090°T 4.73 Nm
042°T 0.87 Nm
136°T 1.58 Nm
196°T 4.70 Nm
006°T 2.21 Nm
317°T 3.12 Nm
280°T 3.30 Nm
298°T 1.80 Nm

The two routes are shown as the NW Route and the SW Route:

- The SW route is 19.4nm
- The NW route is 33.8nm.

The extra distance incurred by taking the NW route instead of the SW route is therefore 14.4nm.

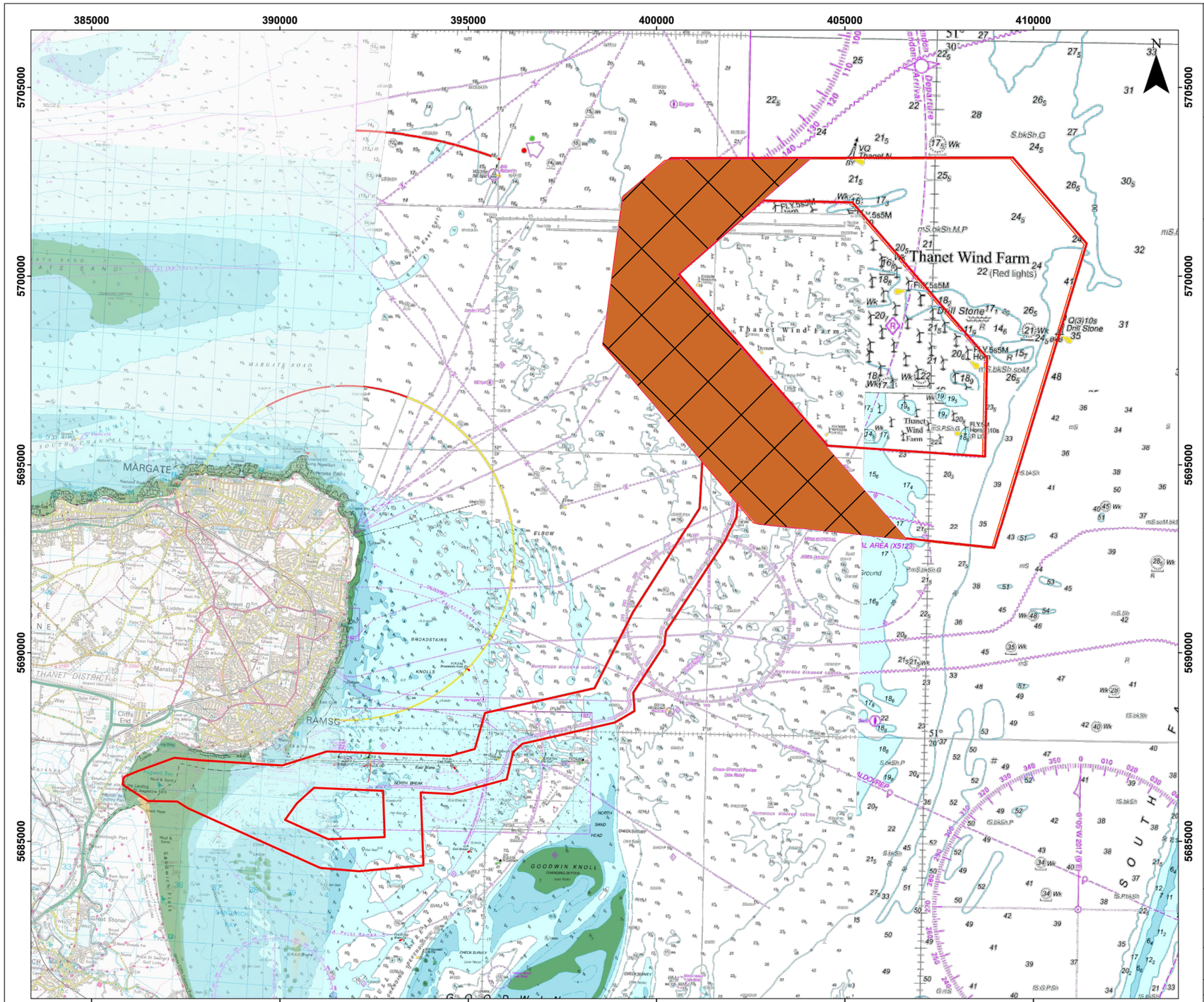
The average ship would be sailing at approximately 15 knots. Sailing the extra distance would therefore result in approximately an additional 1 hr of extra sailing.

The chart above shows courses which allow a safe distance of 1nm from the wind farm and 0.5nm from the 500 metre exclusion zone.

The two pinch points shown in yellow to the NW and SW channels will be reduced by almost 50%, giving 0.8nm to the NW and 0.9nm to the SW. This equates to a distance of less than 0.4nm on either side of a vessel which gives insufficient room for safety, errors or engine malfunctions.

When vessels approach a pilot station initially they will be on main engine control, which means that the ship cannot be stopped immediately without risking losing the function of the engine. The process of reducing speed in the approach to a pilot boarding station has to be carried out over the last hour of the passage, slowing down a few revolutions per minute. Ideally, the vessel should be in manoeuvring control just before the pilot station. During this period vessels often lose the function of their engines and will be testing astern power meaning that they will be moving slowly at the pilot station with little ability to react quickly. The danger is that this inability to react quickly will coincide with the time when vessels reach the pinch points highlighted in yellow and also a more restricted pilot boarding position.

Vessels are also required to change the fuel supply to the engines to meet EU sulphur regulations, this means that the vessel will change from heavy crude oil over to diesel gas oil. At this point engines can fail causing the vessel to be disabled which is a further risk which will be heightened by the narrowing of the available navigable channel at the pinch points.



THANET EXTENSION OFFSHORE WIND FARM

Land Plan (Offshore)

Document reference: 2.2
APFP Regulation: 5(2)(i)

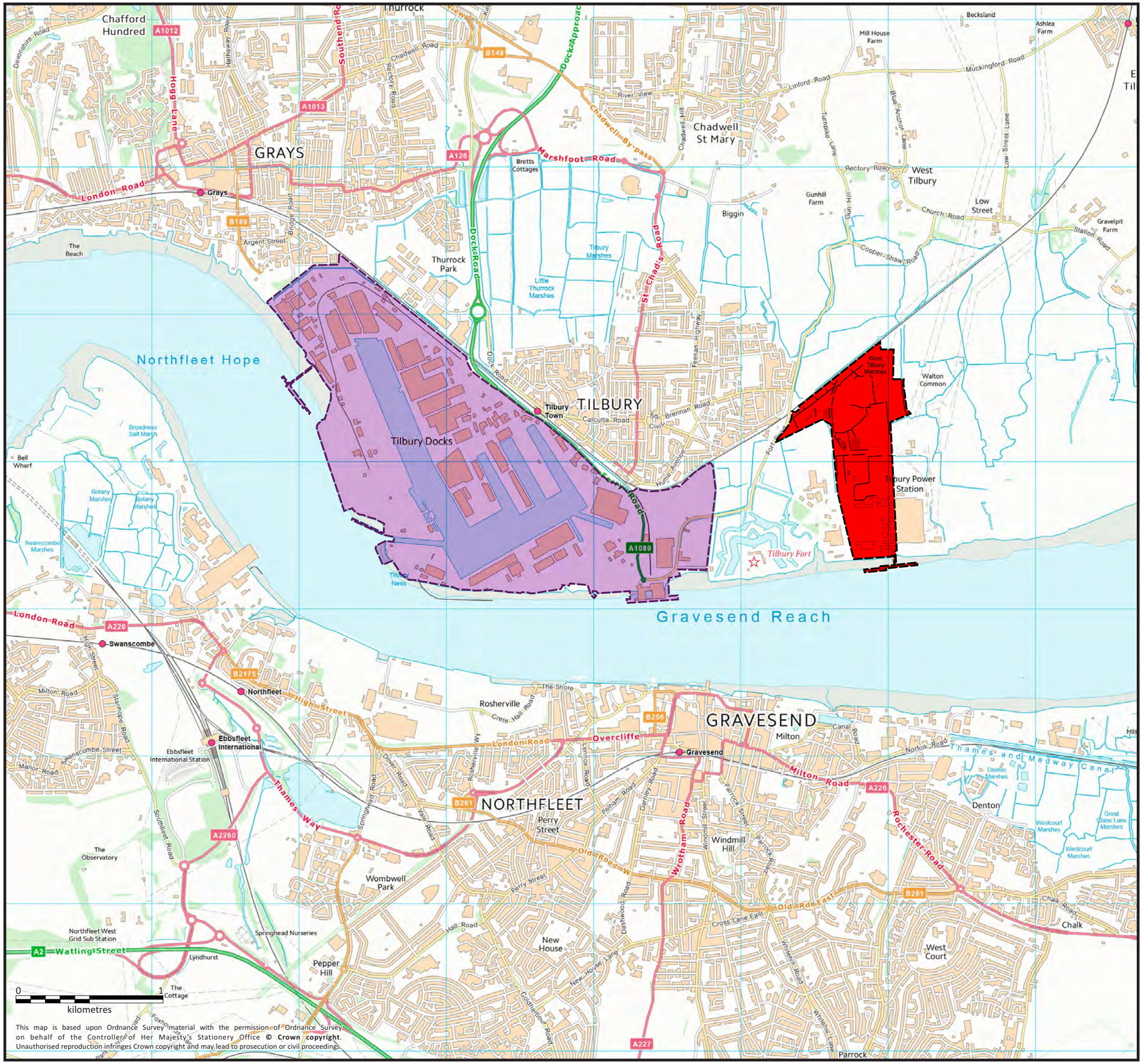
Legend

- Land and rights to be acquired
- Area of land propsed by ESL , the PLA LGPL and PoTLL to be excluded from the DCO's limits

Datum: ETRS 1989
Projection: UTM 31N

Scale @ A1 - 1:50,000 0 1.5 3 km

Drg No	TEOW_Land_Plan_Offshore		
Rev	0.1	Date	22/06/2018
By	RM	Check	SL



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EXISTING PORT OF TILBURY

TILBURY 2

PROJECT TITLE

Tilbury 2
TILBURY

DRAWING TITLE

Existing and proposed port facilities

SCALE	DATE	CHECKED
1:25000	JULY 2016	
	DRAWN HNA	DATE

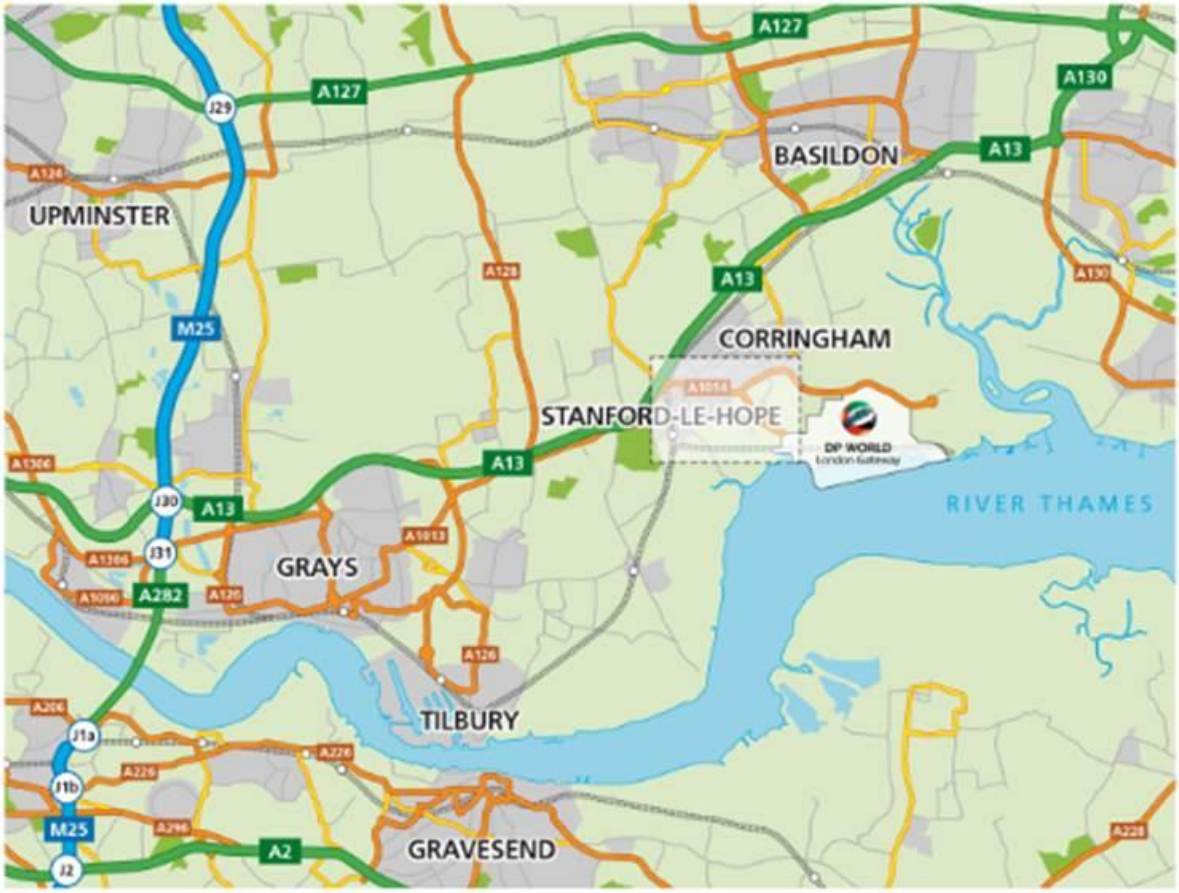
PROJECT No. 5120

N

201

VINCENT AND GORBING
CHARTERED ARCHITECTS AND TOWN PLANNERS
STERLING COURT NORTON ROAD STEVENAGE HERTS
TELEPHONE: 01438 316331 FAX:01438 722035

Appendix C


A127
A130
J29
A127
BASILDON
A13
UPMINSTER
A13
M25
CORRINGHAM
STANFORD-LE-HOPE
DP WORLD
A13
RIVER THAMES
J30
A13
J31
GRAYS
A282
TILBURY
J1a
J1b
M25
A2
GRAVESEND