

Thanet Extension Offshore Wind Farm
Response to Department for Business, Energy and Industrial Strategy letter
dated 21 November 2019
On behalf of Port of Tilbury London Limited and London Gateway Port Limited
13 December 2019

1. SUMMARY

- 1.1 The document provides a response to the letter issued by the Department for Business, Energy and Industrial Strategy (**BEIS**) dated 21 November 2019 requesting information and comments on the application by Vattenfall Wind Power Limited (**the Applicant**) for an order granting development consent for the proposed Thanet Extension Offshore Wind Farm (**TEOWF**) off the coast of Kent (**the Application**).
- 1.2 Port of Tilbury London Limited (**PoTLL**) and London Gateway Port Limited (**LGPL**) made representations jointly throughout the course of the Examination of the Application, raising concerns on the impacts of the development on shipping, navigation and port infrastructure. PoTLL and LGPL (hereinafter referred to together as **the Ports**) expended considerable recourse in participating in the Examination due to the gravity of their concerns in respect of shipping and navigation and in particular the potential economic damage which the TEOWF could cause to the Thames Estuary. The Ports retained HR Wallingford as their technical navigation specialist throughout the course of the Examination and submitted their final overall submissions and closing remarks at Examination Deadline 7 [REP-042]¹. The Ports respond jointly to BEIS' 21 November 2019 letter in this document.
- 1.3 In particular this document responds to the Marine Navigation, Shipping and Ports Infrastructure section of the letter and it:
- 1.3.1 sets out the views of the Ports as to whether the further Collision Risk Assessment undertaken by Anatec (the **CRA**) submitted at Deadline 6 of the Examination addresses the concerns expressed by the Ports during the Examination with regard to the impact upon commercial shipping (see section 2); and
- 1.3.2 comments on the additional pilotage simulations undertaken during September 2019 and the findings of the subsequent *'Thanet Extension Offshore Wind Farm: HR Wallingford Bridge Simulation Report'* dated 7 October 2019, with particular regard to Annex I of that report (see section 3).

2. COLLISION RISK ASSESSMENT

- 2.1 The Ports comment as follows on the CRA.

Failure properly to consider growth

- 2.2 The Ports maintain that the 10% increase in traffic utilised for the purpose of the CRA is insufficient to account for future traffic growth for the full period during which the TEOWF will be operational. Section 5.3 of the CRA suggests that the *"flat 10% increase"* is *"in line with that assumed for the larger majority of NRAs undertaken for North Sea offshore renewable projects"*. This fails to recognise the particular characteristics of the area in the vicinity of the TEOWF which is subject to extensive new port development (including that at DP World London Gateway and Tilbury2). Such project-specific characteristics were the subject of a number of the Ports' representations throughout the course of the Examination and the CRA's reference to *"the larger majority"* of NRAs is both symptomatic and representative of the Applicant's failure properly to consider local context for growth in the assessment of the TEOWF.
- 2.3 In this regard the Examining Authority's (ExA's) written question 3.12.13 [PD-019] which pertained to *'allowances for traffic growth in collision risk modelling: NPS Ports policy compatibility'* referred to advice set out within the National Policy Statement for Ports and the implication *"that the combination of a geographic shift in demand for port capacity towards the south east together with forecast GB growth rates for ports capacity when taken together suggest that trends extrapolated*

¹ Document references in this form are to the Examination Library for the TEOWF

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from historic traffic on the Thames Estuary may not provide a sound basis for forward planning for ports capacity and effects of ports going forward". The Ports responded to this topic throughout the course of the Examination and made a number of submissions in respect of growth maintaining that whilst the growth assumptions which informed the assessment of the project may appropriately represent the growth in port throughput for the UK as a whole, they were not reflective of the ports located in the Thames Estuary. See in particular the following representations made by the Ports: [REP2-050]; representations made at issue specific hearing 5 (as summarised in [REP3-070]); [REP4C-016] (including the HR Wallingford Report at Appendix 1); [REP6-105]; and [REP7-042].

- 2.4 The Ports also refer to table 85 of the Marine Management Organisation's MMO1127: *'Future analysis for the North East, North West, South East and South West marine plan areas'* document dated June 2017 which was submitted to the Examination by the Applicant in Appendix 7 to its Deadline 5 submission [REP5-012]. Table 85 sets out assumptions and impacts under the future scenarios for ports, shipping, dredging and disposal in the south-east marine plan area and recommends assumed annual growth rates, in terms of freight tonnage, of 1% between 2017 and 2027 and 2% between 2028 and 2036. This equates to a growth assumption of 29% for the period of 2019 to 2036, notwithstanding that 2036 represents only 17 years into the 35 year *'Reasonable Planning Horizon'* suggested by the EXA as being representative of the likely operational lifetime of the TEOWF on Page 2 of their ISH2 Action Points document [EV-003]. Even if the lower growth figure of 1% was utilised for the remaining 18 year period (2036 to 2054), growth over the full Reasonable Planning Horizon would be in the order of 47% (or 60% if compound growth is considered).
- 2.5 Furthermore, in addition to predicted growth in the South East region as a whole, we note the Applicant's response to the ExA's written question 3.12.13 [REP6-026] which highlights a decline of trade at the Port of Felixstowe of 15% between Q4 2017 and Q4 2018 resulting from the shift in trade from the Port of Felixstowe to DP World London Gateway. While this may not be relevant to traffic growth in the region as a whole, it is significant that the shift from the Port of Felixstowe to DP World London Gateway would result in greater use of the shipping lanes relevant to the objections made during the Examination of the Application by the shipping and navigation parties. Thus, whilst the Ports acknowledge that average ship sizes are increasing, they do not believe that such increases will be sufficient to translate the levels of background freight growth in the South East region predicted within the MMO1127 document and Ports NPS, alongside the significant shift within the South East towards Thames-based ports, to just 10% vessel traffic growth.²
- 2.6 In view of the above, the Ports are of the view that the 10% future vessel traffic growth figure assumed for the purposes of the CRA does not provide a suitably robust assessment.
- 2.7 The Ports also highlight that the CRA demonstrates that an increase in vessel traffic results in a disproportionately greater increase in risk (section 5.3 of the CRA provides a comparison of 2017 traffic levels without the TEOWF and the future traffic levels without the windfarm extension and states that a 10% increase in vessel traffic results in a 21% increase in risk). This demonstrates that the level of risk is somewhat sensitive to increases in background traffic. Given the uncertainty regarding the 10% future traffic growth assumption (as indicated by the concerns expressed by Interested Parties, and above), the Ports are of the view that in order to be considered robust, the CRA should, at the very least, have included a 'sensitivity test' of higher future vessel traffic growth levels. The Ports contend this is critical because any increase in risk as a result of the TEOWF (suggested by the CRA to be 4%) must be considered against the level of baseline risk. Whilst a 4% increase in risk may be acceptable in an area which is subject to low baseline risk, it may be entirely

² Note – the Ports have been informed by Estuary Services Limited that total boarding and landing pilotage acts for London from Ramsgate in 2017 (January to November) was 4291. The total acts in 2019 (January to November) was 4529. This equates to roughly a 6% increase in that two year period. For Medway Ports that total boarding and landing pilotage acts in 2017 (January to November) was 1658. The total acts in 2019 (January to November) was 1605. This represents a slight decrease for Medway Ports. If London and Medway Ports are combined, the overall increase is just over 3% in a two year period. This is further evidence that the 10% increase in traffic utilised for the purpose of the CRA is insufficient to account for future traffic growth for the full period during which the TEOWF will be operational.

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unacceptable where baseline risk is already high. The Ports contend that the CRA has not robustly assessed future baseline risk and therefore cannot be relied upon to consider the effect of additional risk resulting from the TEOWF.

Modelling process

- 2.8 Aside from the matter of appropriate vessel traffic growth assumptions, the Ports note that the modelling process for the CRA did not take account of anchored vessels (see the 4th paragraph of section 6, page 17 of the CRA) and little justification is provided for this approach. The Ports consider that it is appropriate to highlight that the Applicant's original Navigation Risk Assessment (**NRA**) [APP-089] reported a marginal failure within the 2017 simulations due to proximity to a vessel anchored at the Margate Roads Anchorage (see page 74 of the NRA). In addition, the Ports note the comment of one independent mariner involved on Day 3 of the September 2019 simulations (as reported in Annex D of the Bridge Simulation Report dated 19 September 2019) that "*I would not have been as comfortable if a vessel was anchored in the deepwater anchorage*". Thus, the absence of consideration for anchored vessels further draws into question the robustness of the conclusions of the CRA. Vessels at anchor are clearly a material consideration for the purpose of safety of navigation and the Ports consider that the omission of such vessels is detrimental to the validity of the assessment.
- 2.9 In addition to the views expressed above, the Ports also defer to the views of those Interested Parties responsible for navigation and pilotage operations in the vicinity of the proposed development³ regarding the majority of technical matters relevant to the CRA. For the avoidance of doubt, the Ports have not been able to refer the CRA to their technical navigation specialists, HR Wallingford, as their appointment ended at the close of the Examination. Had the CRA or the Second Bridge Simulation Report been produced during the course of the Examination (as the Ports suggested should be the case) then the Ports would have been able to refer both to HR Wallingford for assessment and analysis.

3. BRIDGE SIMULATION REPORT

- 3.1 As outlined above for the CRA, the Ports have not referred the Second Bridge Simulation Report dated 7 October 2019 (referred to here as the **second PTSB report**) or the Second Bridge Simulation Study Specification and Inception Report dated July 2019 (referred to here as **the Specification**) to their technical navigation specialists, HR Wallingford for technical input. This was not possible due to (a) HR Wallingford's appointment having ended at the close of the Examination (as explained above); and (b) the tight timescales in which such feedback was sought (in particular for the Specification which was received by the Ports on 16 July 2019 with feedback sought by 30 July 2019).
- 3.2 The review and subsequent feedback which the Ports offered the Applicant on the Specification in July 2019 was therefore of a non-technical nature. Such feedback was limited to the accurate reporting of previous representations; discussion of appropriate future vessel traffic growth assumptions; and procedural matters. The procedural matters included seeking clarification as to the purpose and scope of additional simulations and seeking to ensure that the additional simulations and reporting thereof was undertaken in an independent and un-biased manner.
- 3.3 Whilst the Ports have an in-depth understanding of matters such as future growth, the Ports do not undertake navigation and pilotage operations and therefore do not have in-house expertise in these areas. The ports therefore defer to the Interested Parties with direct responsibility for such operations with regard to matters such as appropriate met ocean conditions, simulation locations, appropriate number of simulations, simulator set up and configuration and run grading.

³ Estuary Services Limited, the Port of London Authority and the London Pilots Council

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- 3.4 The Ports are, however, able to offer some input on the second PTSB report of a practical nature given (a) their attendance via an observer at the bridge simulation; and (b) their input into the Examination of the Application. The input of the Ports on the second PTSB report falls into four broad categories on which the Ports would raise concerns in respect of the findings:
- (a) treatment of comments on the Specification;
 - (b) treatment of future traffic growth;
 - (c) conduct of the simulations; and
 - (d) reporting of the simulations.

These concerns are set out in more detail below.

A - Treatment of comments on the Specification in the set-up and pre-simulation consultation

- 3.5 The Ports have a number of comments regarding the treatment of comments on the Specification in the set-up and pre-simulation consultation.
- 3.6 Within the second PTSB report it is stated that “*the Applicant can confirm that the parameters raised by LGPL/POTL with regard to particular areas of concern, including consideration of the future baseline scenarios and future and current large vessels have been simulated to address concerns raised*” (page 13 of Annex I of the second PTSB report). There is, however, no evidence that the matters raised by the Ports in their response to consultation on the Specification dated 30 July 2019 (**the Specification Response**) (attached as **Appendix A**) were afforded due consideration by the Applicant and to the contrary, they appear to have largely been dismissed out of hand. There is also no evidence that HR Wallingford, as independent manager of the simulations on behalf of the Applicant, was consulted on such matters. This appears to contradict the Applicant's contention that the second PTBS “*will address the concerns raised by IPs with regards to potential future use of the inshore route by vessels of a larger scale that currently utilise the routes*” (para 3 of Specification). If the second PSTB was intended to robustly address the concerns of IPs then it is reasonable to expect that the views of IPs were given significant weight. This does not appear to the Ports to have been the case.
- 3.7 It is noted that paragraph 27 of the Specification indicates that “*Consultation with IPs will seek to achieve a consensus such that by 8th August 2019 the final simulation procedures and run sequencing are agreed. The Applicant will seek to accommodate reasonable requests from IPs and, in the event that agreement cannot be reached, divergence of views will be recorded in the simulation report*”. However, following submission of the Specification Response there was no further discussion of the concerns raised therein and such matters remained unresolved. Furthermore, the resulting divergence of views is not represented in the second PTSB report. To the contrary, Annex I of the second PTSB Report is misleading in that it suggests such matters were addressed by the second PTSB, which does not appear to be the case. To give a direct example of where feedback was not properly taken into account, one of the Ports' comments in the Specification Response was that the second PTSB report should be drafted solely by an independent body; this was not the case - see further comments below regarding the conduct of the simulations.

B - Future traffic growth

- 3.8 With regard to appropriate assumptions for future growth in background shipping levels, section 5.4 of the second PTSB report suggests that the conclusions of the set-up day were that “*background traffic was realistic*”. However, the Ports suggest that it is unlikely that any of the parties present, save for the Applicant, would have been in a position to understand likely future growth such as to reach a conclusion on this matter. There is no evidence that either the HR Wallingford

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representatives or the independent mariners involved in the set up days were advised of matters pertinent to such considerations, such as the significant additional consented and committed (but as yet unimplemented) port development in the Thames Estuary or the advice contained within Table 85 of the Marine Management Organisation's MMO1127 document. Thus, it would appear that the reported set-up day conclusion relates to existing background traffic and any conclusions regarding suitable growth to represent future baseline traffic levels are those of the Applicant without any independent verification. See comments above in section 2 in respect of the CRA which outline the Ports' views and relevant submissions on traffic growth in more detail.

- 3.9 Section 6.1 of the second PTSB report refers to the conclusions of the independent simulation run report by HR Wallingford (presented in Annex E) that the density of background shipping to be utilised in the simulations was representative. However, again it is not clear whether such conclusions related to existing shipping levels or those likely to be experienced during the 'Reasonable Planning Horizon'.

C - Conduct of the simulations

- 3.10 In the Specification Response the Ports challenged the proposed roles of HR Wallingford and Marico Marine. In doing so the Ports were seeking to ensure that the second simulations, including the set-up and reporting thereof, was managed and conducted as independently as possible of the parties engaged in the Examination. It was the view of the Ports that the second simulations and subsequent reporting should be managed and conducted by HR Wallingford, in association with independent mariners. The Ports contended that the role of Marico Marine should be as a consultee/observer contributing in a similar and equal capacity as other interested parties. For the avoidance of doubt, the suggestion made by the Ports was in no way intended to question the professional integrity of Marico Marine. The suggestion was, however, made with a view to ensuring the fairest and most balanced circumstances for the simulations and reporting as possible. It was considered that HR Wallingford was therefore best placed to carry out a fully independent simulation.⁴
- 3.11 The arrangements suggested by the Ports were not established and Marico Marine took the lead role in managing and overseeing the simulations and their set up. As observed during the days during which the Ports' representative was present (Day 1 and Day 5), the role of HR Wallingford appeared to be predominantly limited to the technical operation of the simulator equipment. For example:
- 3.11.1 Development of the specification was led by Marico Marine (albeit it is accepted that HR Wallingford may have provided information regarding typical metocean conditions).
- 3.11.2 There is no evidence that HR Wallingford provided any adjudication of matters of dispute between the parties at the set-up stage (for example appropriate future vessel growth levels).
- 3.11.3 All pre-run briefings and post run de-briefings were led by a representative of Marico Marine (not HR Wallingford). Thus, it was Marico Marine who determined what contextual information was made available to the independent mariners within pre-run briefings.
- 3.11.4 Whilst, technically, emergency scenarios were introduced to the simulation runs by HR Wallingford, they were introduced at the instruction of Marico Marine's representative (Paul Brown). It was Paul Brown who determined the nature and timing of emergency incidents, not HR Wallingford.
- 3.12 Whilst the Ports' representative did report that genuine attempts were made by the Marico Marine's representative to avoid giving direction to the independent mariners, it was the view of the Ports'

⁴ Note that the HRW team who assisted the Ports during the Examination was a separate team to the one carrying out the simulations and that appropriate firewalls were in place.

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representative in attendance that pre-run briefings were not balanced. There was a tendency to highlight certain matters which favoured the Applicant's interests (i.e. promoting circumstances more likely to make the simulations successful) whilst underplaying other matters which may not have been favourable to a successful simulation result. For example, with regard to the use of the North East (**NE**) Spit for boarding of pilots to larger vessels, it was suggested that the chart depth at the NE Spit (11.6m) would preclude access by larger vessels which, it was suggested, typically have a draft of between 12m and 15m. However it was not clarified that larger vessels are able to board pilots at the NE Spit during higher tides as evidenced by Table 7.6 of the report prepared by HR Wallingford on behalf of the Ports [REP4C-016], which highlights that six vessels with drafts significantly in excess of 11.6m, and up to 14.4m draft, boarded pilots at the NE Spit in the year to November 2018. It was also not clarified that during certain metocean conditions the NE Spit is the only boarding station which is operational. Thus, the view of the independent mariners regarding the scope of runs to be undertaken may have been influenced and unbalanced. Such an approach was clearly not balanced and it would therefore have been preferable for a genuinely independent simulation to have been carried out by HR Wallingford.

- 3.13 As evidenced within section 5.4 of the second PTSB report, during the set-up day it was agreed to “undertake transfers for 333m ships during the simulation, but only in conditions with less than 25kts of wind and no more than 1 hour either side of high water”. However, it is the Ports' understanding that large vessels rely on (and are directed to) the inshore areas (NE Spit) for pilot boarding during more adverse weather conditions due to other pilot boarding areas being offline in such conditions. Table 7.6 of the HR Wallingford Report at Appendix 1 of [REP4C-016] highlights 8 vessels of over 300m (and up to 333m) (an internet search shows that 7 of such vessels had drafts of 11.6m and above (and up to 14.4m)) which used the North East Spit in the year to November 2018. The Ports are informed that the PLA has weather data for 7 of these transfers which confirms that 5 of the 7 pilotage transfers were undertaken in wind conditions in excess of 25kts (and up to gale force 9 (41 – 47kts)). This disputes the conclusion of the set-up that led to the approach reported in the second PTSB (i.e. undertaking transfers for vessels of 333m in conditions with no more than 25kts wind) and evidences that large vessel transfers at the North East Split happen in winds above 25kts. As such, the decision to limit transfers of 333m ships to conditions with less than 25kts of wind and no more than 1 hour either side of high water is a limitation on the accuracy of the assessment.⁵

D - Reporting of the simulations

- 3.14 Section 5.4 of the second PTSB report suggests that following the set-up day, the parties present concluded that the simulations were suitably accurate and representative with regard to vessel handling characteristics and metocean conditions. However, both the feedback reported in Annex D of the second PTSB report and comments witnessed and recorded on Day 1 of the simulations by the POTL/LGPL representative present contradict this somewhat. With regard to Annex D the Ports highlight the following comments of independent mariners:
- 3.14.1 *“The simulation does not represent the roll of the ship very well when beam onto the sea, I think in a rea situation this boarding and landing may not have been possible”*
 - 3.14.2 *“Vessel seemed underpowered for this type of vessel. Developed larger rate of turns than I would have expected”*
 - 3.14.3 *“Grande class vessel too slow in prevailing conditions”*
 - 3.14.4 *“232m 8m draft – 35 knot beam wind would have been very unlikely to steer in reality and probably would have needed more engine speed to maintain course”*
 - 3.14.5 *“Simulator did not feel like NW wind at 25 knots”*

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- 3.14.6 *“A large contained vessel such as this in ballast with similar wind conditions may be more challenging”*
- 3.14.7 *“The sea conditions were not accurate for the wind speed – too calm”*
- 3.14.8 *“Because the pilot boat failed to operate as instructed during the pre-exercise briefing”*
- 3.14.9 *“Simulated sea conditions not accurate, appeared to be south east wind and swell”*
- 3.14.10 *“NE 25 knots would slow the progress of the pilot boat. Pilot boat still able to make way at full speed. Serving two ships at tongue boarding area in these conditions would take longer than simulated due to bad weather”*
- 3.14.11 *“Headwind seemed to hinder forward speed more than would be expected in reality?”*
- 3.15 Such comments appear to contradict the conclusions of the second PTSB report that the parties considered the simulations to be suitably accurate and representative and the second PTSB report is therefore somewhat skewed in the way it presents such conclusions.
- 3.16 The Ports highlight that during simulation Run 4 a comment was raised that, despite the fact that background traffic levels had been amended from medium to high growth, there was no noticeable difference in background vessel traffic. Additionally, one of the independent mariners highlighted that for Runs 1 to 3 all vessels (including background traffic) had the same starting position. This comment was not challenged at the time however it was not documented in the second PTSB report which further goes to show that it does not always represent the views of those involved with the simulations in a balanced and impartial manner.
- 3.17 As explicitly clarified to the Applicant and those present during introductions at Day 1 and Day 5 of the second simulations, the representative of the Ports in attendance did not have a maritime background or technical expertise with regard to maritime matters. As such, the purpose of the representative’s attendance was strictly to observe the simulations and report observations. Thus, whilst as reported in section 3.3 of the second PTSB report, the Ports’ representative *“was given the opportunity to comment on the accuracy and conduct of the simulations”*, any such comments would have necessarily been limited to non-technical matters. There are a number of areas within the second PTSB report that appear to suggest a wider involvement of the Ports’ representative or in some cases endorsement of matters by parties present (and by implication the Ports’ representative). The Ports consider such suggestions misleading and for the avoidance of doubt the Ports’ representative attended in an observational capacity only and did not endorse the approach at any stage. For example, with regard to section 5.7 of the second PTSB report, the Ports’ representative did not review the methodology as is suggested. Additionally, contrary to a number of references in Annex I, the Ports’ representative did not comment on the degree to which:
- 3.17.1 *“transfers on or in the vicinity of the Elbow were adequately explored”* (Page I5 of Annex I);
- 3.17.2 *“real world conditions were simulated as closely as possible”* (Page I5 of Annex I);
- 3.17.3 *“emergency scenarios represented a realistic set of circumstances”* (Page I6 of Annex I);
- 3.17.4 *“the simulation represented a realistic simulation of the metocean conditions”* (Page I7 of Annex I); or
- 3.17.5 *“the emergency scenarios were a realistic representation”* (Page I11, of Annex I).
- 3.18 For clarification, the lack of comments by the Ports’ representative should not be interpreted as agreement with such matters, as is suggested within Annex I. With regard to such matters the Ports

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defer to the Interest Parties with direct responsibility for pilotage and navigational operations. As set out above, the Ports are disappointed that the simulations were undertaken at a time when such Interested Parties were unable to participate.

- 3.19 Section 6.1 of the second PTSB report suggests that *“all 41 of the simulation runs were graded by the independent participants to be an overall success, with no concerns raised”*. Based on the observations of the Ports' representative present on Day 1 and Day 5 of the simulations, the Ports consider that this representation of the results is misleading. The Ports note the feedback of the independent mariners set out in Annex D of the report, which includes the following comments showing that concerns were raised:
- 3.19.1 *“The simulation does not represent the roll of the ship very well when beam onto the sea, I think in a real situation this boarding and landing may not have been possible”*
- 3.19.2 *“lee for disembarkment not as good, could be dangerous”*
- 3.19.3 *“required to close to less than one mile from the wind farm due to outbound traffic”*
- 3.19.4 *“coming down from the north east the passage plan had me passing over 2 swpt wrecks of less than my draft”*
- 3.19.5 *“(simulation accurate) but not a situation (risk v searoom) which I would be comfortable as a ‘routine’”*.
- 3.20 The Ports also note the conclusion offered on Page 14 of Annex I of the second PTSB report that *“Margate Roads located 3nm to the west of the NE Spit pilot diamond and 5NM to the west of TEOW was not ignored during the 2019 PTBS, it just did not play a significant part as it was geographically too far away”*. However the Ports note the feedback of one independent mariner on Day 3 of the simulations (as reported in Annex D) which stated: *“I would not have been as comfortable if a vessel was anchored in the deepwater anchorage”*.
- 3.21 The Ports' representative was present during the introductory briefing to the Day 1 simulations during which appropriate pilot transfer times were discussed. As reported in section 5.4 of the second PTSB report, these were originally proposed by the Applicant as 1 minute for pilot embarkation and 3 minutes for disembarkation. However, contrary to section 5.4 of the second PTSB report, the independent mariners present subsequently proposed and agreed an amendment to 90 seconds for embarkation and disembarkation combined. The Ports' representative subsequently witnessed the period of 90 seconds being utilised for disembarkation within the Day 1 simulations. Thus the reference to 3 minutes for disembarkation within the second Simulation report is not correct for all (if any) runs.

Conclusions on the Bridge Simulation Report

- 3.22 While the Ports defer to those organisations responsible for pilotage and navigational operations with regard to technical matters, there are a number of points on which the Ports would contest the findings of the second PTSB Report, as follows:
- (a) **Treatment of comments on the Specification:** the comments of the Ports on the Specification were not properly taken into account, were not subject to independent consideration and were not afforded due consideration by the Applicant in conducting the simulation.

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- (b) **Future traffic growth:** it is not clear what level of background future vessel traffic growth was adopted for the simulations and the Ports remain concerned that the background traffic levels utilised significantly understated likely growth in vessel traffic during the 'Reasonable Planning Horizon'.
- (c) **Conduct of the simulations:** the Ports were disappointed that the Applicant did not take the opportunity to commission HR Wallingford to lead the simulations independently from the views of the various parties to the Examination. It was also disappointing that the simulations were not scheduled such as to allow the participation of Interested Parties responsible for pilotage and navigational operations in the vicinity of the TEOWF. As a result, the Ports are concerned that the runs simulated were not representative of all likely scenarios, particularly with regard to large ships boarding pilots at the NE Spit during adverse weather conditions.
- (d) **Reporting of the simulations:** finally, the Ports have concerns that the reporting of the simulations, as set out in the second PTSB report, is not entirely representative of the simulations undertaken and that the conclusions drawn out within the report are not therefore suitably robust.

3.23 In view of the above, the Ports' concerns regarding the impact of the TEOWF on shipping and navigation interests are sustained and the findings of the second PTSB report do not allay the concerns in this respect raised during the Examination of the Application.

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Appendix A
The Specification Response



Pinsent Masons

APPLICATION BY VATTENFALL WIND POWER LIMITED FOR A DCO FOR THE THANET EXTENSION OFFSHORE WIND FARM

RESPONSE TO THE SECOND BRIDGE SIMULATION STUDY SPECIFICATION AND INCEPTION REPORT

MADE JOINTLY BY

PORT OF TILBURY LONDON LIMITED AND LONDON GATEWAY PORT LIMITED

30 JULY 2019

1. SUMMARY

- 1.1 This document is the joint response of Port of Tilbury London Limited (PoTLL) and London Gateway Port Limited (LGPL) (the Ports) to the Second Bridge Simulation Study Specification and Inception Report produced by Vattenfall dated July 2019 (the Specification). The Ports were invited by Vattenfall to comment on the Specification on the understanding that such comments will be taken into account in the production of the final version of the Specification.
- 1.2 The Ports make the comments on the Specification listed below without prejudice to their position that, in procedural terms, such a study could and should have been carried out before the close of the Examination on 11 June 2019 in the interests of the effective and inclusive examination of the application. The Ports made numerous representations during the course of the Examination requesting that a further simulation study was carried out *during the Examination* in order to inform the Navigation Risk Assessment and fully assess the impacts of the scheme. Vattenfall had ample time to carry out such a study during the Examination had it been minded to do so. Carrying out the simulation study beyond the end of the Examination prejudices the ability of relevant interested parties (IPs) fully to engage with its contents and also results in additional and unnecessary costs for IPs.
- 1.3 The Ports therefore reserve their position and right to make a formal response on procedural and technical matters to the Secretary of State should the Secretary of State accept for consideration the results of this proposed second Bridge Simulation Study and consult IPs on its content.



2. RESPONSE TO THE SPECIFICATION

2.1 The table below sets out the Ports' response to the Specification.

Reference	Ports' Response
Paragraph 1 and Paragraph 3	<p>The Ports note that the Specification states that "a number of the Interested Parties (IPs) requested an additional navigation simulation in order to understand the feasibility of larger vessel transit and explore a wider range of scenarios". To clarify, the Ports deemed the additional navigation simulations to be necessary in order to consider the viability of transits to occur <u>alongside pilotage operations</u> not just to understand the feasibility of larger vessel transit.</p> <p>The Ports (alongside other IPs) also contended that additional navigation simulation was required in order to inform a revised Navigation Risk Assessment however it is unclear from the Specification whether a revised NRA is proposed. The purpose of the additional navigation simulations is therefore unclear.</p>
Paragraph 6, 2nd bullet point	<p>The Ports defer to Estuary Services Limited (ESL), the Port of London Authority (PLA) and the London Pilots Council (LPC) to confirm that use of the (ESL) 2017-18 met ocean operating parameters (and limits) is suitable.</p>
Paragraph 6, 4th bullet point	<p>As above for paragraphs 1 and 3, the simulation study should consider transits alongside pilotage operations.</p>
Paragraph 8	<p>The Ports defer to ESL, the PLA and LPC to confirm the acceptability of locations (a), (b), and (c) for simulations involving the existing wind farm and the proposed extension.</p> <p>The Ports are of the view that a total of 40 simulation runs (25 with the TEOW in place) is insufficient to test a suitable range of circumstances (noting that simulations are to consider 6 different classes of vessels and there will therefore only be 4 runs on average per class). The Ports defer to the PLA, ESL and the LPC to confirm what the appropriate number of runs is.</p>
Paragraph 18	<p>The Ports question why it is necessary for the 'factual report' of the outputs of the simulations to be drafted by HRW "in collaboration with Marico". The Ports consider that HR Wallingford should draft the reports in order to ensure independence and impartiality. Marico should simply be consulted on the simulation study alongside the other IPs.</p>



Reference	Ports' Response
Section 4.4	The Ports defer to ESL, the PLA and LPC to confirm that they are happy with the proposed set up and configuration.
Paragraph 19, 5th bullet point, sub bullet point 1	<p>The Ports note that the "<i>Heavy + (traffic growth above baseline)</i>" scenario provides for only 10% growth. If a number of scenarios are to be considered (in terms of baseline traffic levels) then the Ports consider that higher future growth should be considered as well.</p> <p>The Ports disagree that the proposed 10% future growth assumption is appropriate for the simulation study. In the absence of an agreed alternate figure the Ports propose that the 38% figure which was based on the 'MMO1127: Futures analysis for the north east, north west, south east and south west marine plan areas' document should be utilised. The calculation of the 38% growth figure was set out in more detail in the Ports' Deadline 6 representation [REP6-105] and, for convenience is copied in italics below:</p> <p><i>"It is to be noted that the compound effect of a 1% increase for 10 years followed by a 2% increase for 8 years is a total increase of 29.4% (noting this would only relate to the period from 2017 to 2036 whereas the 'Reasonable Planning Horizon' with regard to the TEOWF has been defined as to 2054 (i.e. 35 years from 2019)). If the lower figure of 1% per annum was applied to the period 2036 to 2054 the total compound growth from 2017 to the end of the Reasonable Planning Horizon would equate to 54.8%. As indicated by POTLL and LGPL's Deadline 2 submission (Doc Ref: REP2-050) a 22.5% increase in freight tonnage between 2016 and 2018 equated to an increase in vessel numbers of 566 (from 3638 to 4204), equivalent to a 15.6% increase. A similar correlation would suggest that a 54.8% in freight tonnage would give rise to a 38% increase in ship numbers."</i></p>
Paragraph 20	The Ports defer to ESL, the PLA and LPC to confirm that they are happy with the proposed run grading.
Paragraph 27	The Ports note that this paragraph states that " <i>the Applicant will seek to accommodate reasonable requests from IPs and, in the event, that agreement cannot be reached, divergence of views will be recorded in the simulation report</i> ". Linked to the Ports' response to paragraph 18 above, the Ports query whether it should be the Applicant seeking to accommodate reasonable requests from IPs or whether feedback should be taken into account and considered by HR Wallingford as an experienced and impartial operator of simulation studies. The Ports are of the view that feedback from IPs should be assessed by HR Wallingford and included in the parameters of the simulation study if deemed appropriate by HR Wallingford.
Paragraph 29	The Ports note that this paragraph states that: " <i>two additional days (19-20thAug) have been reserved as contingency days in the event that the simulations overrun or that in the opinion of the Applicant, the simulation results would be compromised for the want of extra simulation</i> ". Again, in line with the comment in response to paragraph 27 above, the Ports query why the decision as to whether the simulation results will be compromised is to be made based upon the Applicant's opinion. The Ports suggest that the competent experts who have been appointed, HR



Reference	Ports' Response
	Wallingford, make this decision based on their own professional judgement.
Paragraph 30	This paragraph states that: <i>"the scenarios will incrementally increase in complexity around the objectives (by vessels and metocean conditions)."</i> The Ports disagree that complexity should be increased incrementally. The Ports consider that this approach would result in a degree of familiarisation in the simulation which would therefore not reflect a realistic scenario.
Table 5	The Ports consider that 2 minutes alongside (for the pilot cutter) and 5 minutes for the pilot to get to the bridge are unrealistic and unrepresentative of real world conditions. The Ports defer to the PLA, ESL and the LPC to confirm appropriate timeframes.

3. PORT REPRESENTATIVES TO ATTEND THE NAVIGATION SET UP AND SIMULATIONS

- 3.1 The Ports confirm that they wish to attend the set up day and simulations. The following will attend the "set up day" as well as the simulation days:
 - 3.1.1 Trevor Hutchinson;
 - 3.1.2 Colin Hitchcock; and
 - 3.1.3 Geoff Holland.
- 3.2 The Ports will confirm the exact days for which each attendee will be present in due course.
- 3.3 The Ports consider that the attendance and participation by the PLA, ESL and LPC and other maritime IPs is essential to the rigour and independence of this process and will ensure that the correct level of expertise is provided. The Ports are content for the PLA, ESL and LPC to nominate a coxswain/pilot and do not have a separate nomination to add.