

VPI B Updated Cumulative Assessment

Non-Material Change

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Quality information

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Table of Contents

1.	Introduction.....	1
2.	Methodology - Cumulative Effects Assessment (Stages 1-3).....	1
3.	Short List 2023	5
4.	Combination Effects	6
5.	Summary and Conclusion	6

Tables

Table 1: Proposed changes to Design Parameters	1
Table 2: Potential Zones of Influence (Zol) of each environmental effect.....	2
Table 3: Previous Short List, updated in 2022.....	3
Table 4: Updated Long List November 2023	4

1. Introduction

- 1.1 A cumulative impact assessment was undertaken and included in the Environmental Statement (ES) for VPI B OCGT (referred to as the "Project" herein) Development Consent Order (DCO) and submitted to the Planning Inspectorate on the 11th April 2019. The Immingham Open Cycle Gas Turbine Order 2020 (S.I. 2020 No. 847) (the Order), was granted consent on 7th August 2020.
- 1.2 In 2022, an updated cumulative impact assessment was prepared and submitted to the Planning Inspectorate, to support a Non-Material Amendment (NMA) application to the Order, for the inclusion of a Synchronous Condenser within an already consented building.
- 1.3 In both the 2019 and 2022 assessments, all topics concluded that there were no significant cumulative effects to arise from the construction or operation phases of the Project when considered alongside other developments proposed within the vicinity of the Site.
- 1.4 This application for a Non-Material Change (NMC) is not expected to change the level of any effects identified within the original ES. However, for completeness the 2019 and 2022 cumulative impact assessments have been reviewed and an update is provided herein.
- 1.5 This NMC request relates to the proposed changes to the maximum dimensions in 'Schedule 12 – Design Parameters' of the Order which are presented in Table 1 and does not make any change to any significant effects previously identified in the original ES. The latter position is explained in the covering letter to this NMC application.
- 1.6 It is important to note that any project undertaking an environmental impact assessment from 2020 onwards will have had to include the VPI B OCGT consented project within their cumulative assessment.

Table 1: Proposed changes to Design Parameters

(1) Building or structure	(2) Maximum length (metres)	(3) Maximum width (metres)	(4) Maximum height (metres above 0 meters above ordnance datum)	(5) Maximum diameter (metres)
Single gas turbine and generator	30 31	20	20	-
Gas turbine building	46 50	25 35	29	-
Exhaust stack	-	-	56	12
Air intakes	24	16	40	-
Fin-fan cooler	30	15	17	-
Control room, workshops, stores	35	20	16	-
Demineralised tank, firewater tank	-	-	32	24

2. Methodology - Cumulative Effects Assessment (Stages 1-3)

- 2.1 The Applicant completed an update of the Long List of identified other developments on 30th November 2023.
- 2.2 The Applicant has considered potentially cumulative schemes up to 15 km from the Site. However, based on the effects identified in the original ES assessments for the Project (particularly Landscape and Visual, Noise and Air Quality effects) only schemes up to 5 km from the Site have the potential to introduce cumulative effects in association with the Project.

2.3 Potential Zones of Influence (Zol) of each environmental effect are identified in Table 2.

Table 2: Potential Zones of Influence (Zol) of each environmental effect

Environmental Topic	Zone of Influence
Air Quality	Construction: 350 m Zol for emissions and construction dust (and 500 m along roads from the site entrance, for dust trackout). Operation: Considers 15 km Zol for international statutory designated ecology sites but effects are negligible beyond 5 km from the Site. 2 km for non-statutory designations. Refer to ES Chapter 6: Air Quality for more information.
Noise and Vibration	Construction and Operation: 1 km Zol. Refer to ES Chapter 8: Noise and Vibration for more information.
Ecology and Nature Conservation	Construction and Operation: A maximum Zol of 15 km has been applied. 15 km for air quality impacts to international statutory designated sites but effects are negligible beyond 5 km from the Site. 2 km Zol for national and locally designated sites. 500 m for ponds. Refer to ES Chapter 9: Ecology for more information.
Landscape and Visual Amenity	Construction and Operation: 2 km (landscape) and 5 km (visual amenity). Refer to ES Chapter 9: Landscape and Visual Amenity for more information.
Cultural Heritage	Construction: On site. Operation: 2 km. Refer to ES Chapter 11: Cultural Heritage for more information.
Ground Conditions and Hydrogeology	Construction and Operation: 2 km Zol Refer to ES Chapter 12: Ground Conditions and Hydrogeology for more information.
Water Resources, Flood risk and Drainage	Construction and Operation: 2 km Zol. Refer to ES Chapter 13 Surface Water, Flood Risk and Drainage for more information.

2.4 The following search areas have been considered for the cumulative schemes (we have scaled the search radius according to the scale of development as has been applied in accordance with the methodology use in Chapter 17: 'Cumulative and Combined Effects' of the original VPI-B Environmental Statement.

- 5 km – Nationally Significant Infrastructure Projects (NSIP) and Environmental Impact Assessment (EIA) Developments
- 3.5 km – EIA developments
- 1.65 km – non-EIA Major developments.

2.5 It is noted that there are other major decarbonization and infrastructure projects currently progressing through early pre-application consultation, for example, V Net Zero and Zero Carbon Humber pipeline which have not yet been submitted for determination and therefore published design information on them is limited. They have therefore not been considered further within this updated cumulative assessment. The environmental assessments for these schemes will each need to include the Project in their respective cumulative assessments.

2.6 The Applicant has also reviewed the previously identified Short List of developments that was used for the original ES and previous NMA to confirm whether any have changed status since the original assessment was completed. Decisions made and relevant planning applications submitted since the original assessment was prepared in February 2020 are summarised in Table 3.

Table 3: Previous Short List, updated in 2022.

Ref number	Scheme	Distance from Site	2019 Status	Description	Any change since the Project was consented in 2020
1	VPI Energy Park 'A'	Adjacent	Consented	Gas-fired power station of up to 49.9MW	Non-material Amendment granted under PA/2021/1039. Pre-construction works under way
2	Able Marine Energy Park DCO	Adjacent	Under construction	Port development	Material change granted in 2021, not yet under construction,
3	Marsh Lane Car Storage	Adjacent	Pending decision	Car storage facility	Decided and constructed
4	Killingholme Power Station PA/2016/1240	1.5 km	Consented	14 gas reciprocating engine generators and ancillary equipment	Operational
5	North Killingholme Power Project DCO	2 km	Consented	470MW power station	NMC accepted and consent extended
6	Able Logistics Park	2.5 km	Consented	Site for warehousing, external storage	Operational
7	AMP Generator	5 km	Consented	Standing reserve power plant	-
8	North Beck Energy Centre	5 km	Consented	Energy recovery facility	Not built
9	CPL Pilot Charcoal Plant	2.5 km	Consented	Erection of a pilot charcoal manufacturing plant	-
10	Stallingborough Interchange	5 km	Consented	Development of 62ha Business Park at Stallingborough.	Under construction
11	South Humber Bank Energy Centre	7 km	Pending consideration	Energy from waste facility	Consented 2021
12	Brocklesby Estate (N.E)	3.4 km	Pending consideration	Proposed residential development	-
13	Engie NEL Energy Park	4.5 km	Pending consideration	Energy Park including 32ha solar farm (18mw) and batter storage (24mw)	Consented 2020
14	20MW Flexible Gas Generation Plant	5 km	Pending consideration	10 x 2 MW flexible gas generation plant (total of 20MW) at disused Immingham Rail freight Terminal	Consented
15	KBC Logistics Ltd	2.5 km	Pending decision	Workshop, offices and lorry park.	-
16	Hornsea Offshore Wind Farm Project One Lagoons PA/2018/155	1.6 km	Consented	9 lagoons for storage of water for the Hornsea Project One Offshore Windfarm	Not believed to be under construction
17	Hornsea Offshore Wind Farm (Zone 4) Project One DCO	Adjacent	Consented	Three offshore wind generating stations with a total capacity of up to 1,200 MW.	Operational
18	Kiln Lane Tyre Recycling Facility	5 km	Consented	Waste tyre to energy pyrolysis plant at disused Immingham Rail freight Terminal.	-
19	South Killingholme Car Storage and Distribution Facility	370 m	Pending decision	Car storage and distribution facility.	Not yet determined
20	Stallingborough CHP	5 km	Consented	Installation of 4 CHP boilers and erection of associate flues at Selvic Shipping Warehouse in Stallingborough.	Operational

2.7 The updated and refined cumulative Long List as of November 2023 is presented in Table 4.

Table 4: Updated Long List November 2023

ID	Scheme	Distance from Site (KM)	Status	Description	Carried to short list?
1	Immingham Eastern Ro-Ro Terminal DCO	3.5	Pending	A new roll-on/roll-off facility comprising a new jetty with up to four berths, improved hardstanding, Terminal buildings and an internal side bridge to cross over existing port infrastructure.	No – due to the distance and industrial nature of existing intervening landscape.
2	Able Marine Energy Park Material Change 1 PINS ref. TR030005	Adjacent	Not yet submitted	The application seeks a material change to the 2014 Order consented by ID3. It relates to an amendment to article 33 of the DCO to extend the time limit for the exercise of authority to acquire land compulsorily over parcel number 03023 in the book of reference for the DCO.	No, has been assessed within baseline, so delayed construction makes no significant change
3	Able Humber Ports Ltd - Able Marine Energy Park Material Change 2. PINS ref. TR030001	0.64 km	Approved 16/06/2022	Two amendments to the layout of the quay that was authorised by the Able Marine Energy Park Development Consent Order 2014 and one amendment to a footpath diversion to go round the end of a railway rather than crossing it.	No, has been assessed within baseline, so delayed construction makes no significant change
4	Immingham Green Energy Terminal DCO PINS ref. TR030008	3.6	Pending	The project comprises a new liquid bulk import terminal and associated processing facility, a purpose of which is to deliver a green hydrogen production facility.	No due to distance and industrial nature of existing intervening landscape.
5	Land adjacent Westgate Entrance, Port of Immingham, Immingham. DN40 3DX (North Lincolnshire application ref. PA/2022/1223)	2 km	Pending	Hybrid application comprising full planning permission for the construction of a hardstanding area for external level storage with landscaping, drainage, access and associated works, and outline planning permission to erect 26,096m ² floor space for industrial/storage and distribution, (Use Class B2/Use Class B8) including ancillary offices (Use Class E) with appearance, landscaping, layout and scale reserved for subsequent consideration	No due to distance and industrial nature of existing intervening landscape
6	VPI Power Station, Rosper Road, South Killingholme, DN40 3DZ (North Lincolnshire application ref. PA/2022/1548)	Same site	Pending	Planning permission to construct and operate a temporary pilot post-combustion carbon capture plant and associated infrastructure	No – development is expected to be commissioned in October 2022 with a life span of 6 – 12 months, meaning plant will not exist when this project becomes operational.
7	Land at Able Marine Energy Park, south of Station Road, South Humber Bank, South Killingholme (North Lincolnshire application ref. PA/2021/1525)	0.86 km	Approved 08/07/2022	Planning permission to erect a monopole manufacturing facility	No due to distance and industrial nature of intervening existing landscape
8	Able Marine Energy Park DCO. PINS ref. TR030001	5 km	Approved 21/05/2021	A Non-Material Change has been sought to move an area proposed for ecological mitigation (Area A) to a new site outside the order limits next to two other areas being utilised for ecological mitigation, (Halton Marshes Wet Grassland Scheme), thereby allowing all three areas to operate as a single unit.	No - has been assessed within baseline, so delayed construction makes no significant change
9	North Killingholme Power Project	1.87 km	Approved 16/09/21	A Non-material change to North Killingholme Power Project, seeking the following changes: The Applicant is seeking consent for changes to the North Killingholme (Generating Station) 2014 Order (as amended) (the “2014 Order”) to allow:	No, has been reviewed and assessed in the 2022 Cumulative Effects assessment for the proposed Synchronous Condenser

ID	Scheme	Distance from Site (KM)	Status	Description	Carried to short list?
				- an amendment to Part 3 (Requirements) of Schedule 1 (Authorised development) to the 2014 Order to extend the time limit for commencing the Authorised Development, which currently expires on 1 October 2021, by five years to 1 October 2026 (the "extension provisions"); and amendments to: <ul style="list-style-type: none"> o Article 2 (Interpretation); o Article 34 (Certification of plans, etc.); and o Part 3 (Requirements) of Schedule 1 (Authorised development); of/to the 2014 Order allowing for the potential delivery of an alternative, post-combustion, carbon capture and storage (CCS) proposal for the CCGT mode of operation without requiring development of the IGCC generating station (the "CCS provisions"). 	
10	Humber Zero PA/2023/422- Phillips 66	Within VPI Site (at closest point)	Pending	Planning permission for the construction and operation of a post-combustion carbon capture plant, including carbon dioxide compression and metering, cooling equipment, stacks, substations, new and modified services, connections, internal roads, new access onto Eastfield Road, and maintenance and laydown areas (EIA development).	Yes – due to proximity
	PA/2023/421 – VPI	Within VPI Site	Pending	Planning permission for the construction and operation of a post-combustion carbon capture plant, including carbon dioxide compressor and metering, cooling equipment, stacks, substations, internal roads, partial ditch realignment, new and modified services, connections, internal roads, accesses, maintenance and laydown areas	

Review of New Long List of Developments

- 2.8 The only additional development identified within 5 km of the Project Site since the 2022 assessment is Humber Zero (refer to the 2022 cumulative effects assessment for the additional developments that were identified within 5 km of the Project since the original assessment in the ES).

3. Short List 2023

- 3.1 One new development in addition to those in the 2019 and 2022 Short List has been identified.

Humber Zero

- 3.2 Humber Zero is a large-scale decarbonisation programme, to remove up to 8 million tonnes (MT) of atmospheric CO₂ emissions per annum from the Immingham industrial cluster by 2030 through the deployment of a number of technologies such as Carbon Capture, Utilisation and Storage (CCUS). By 2028, the first phase of Humber Zero could remove up to 3.8 Mt of CO₂ annually by capturing carbon from the Humber Refinery's FCC stack and two of the gas turbines and auxiliary boilers at the VPI Immingham CHP Plant. The Humber Zero ES considered the VPI-B Project in its Cumulative Impact Assessment.
- 3.3 There is potential for the construction phases of Humber Zero and the Project to overlap. The operational phases of both projects will overlap over a number of years. As noted in paragraph 2.2 above, the relevant topics to consider (where there is potential for cumulative effects) are Landscape and Visual, Noise and Air Quality effects.

- 3.4 The cumulative effects assessment within the Humber Zero ES (which included consideration of the VPI-B Project) states that noise/ visual disturbance – potential for piling noise to disturb waterbirds feeding, roosting and loafing in Rosper Road fields to the east would result in likely significant cumulative effects however with mitigation no adverse effects were identified. Operational noise was assessed to be within ambient levels across the fields. The ES for the Project reports negligible noise during construction and operation. Given that both Projects result in negligible noise effects, significant cumulative effects are not anticipated.
- 3.5 In terms of landscape cumulative effects, the assessment within the Humber Zero ES states that due to the high number of existing large-scale industrial complexes that influence the Local Landscape Types (LLT) it is assessed that the introduction of Humber Zero construction activities would result in a limited change to the LLT. The assessment as reported in the Project ES did not identify significant effects on landscape receptors. It is therefore assessed that there would be no significant cumulative effects.
- 3.6 Humber Zero and the Project will introduce additional built form within views from the LLT. The Project ES assessment did not identify significant visual effects for receptors at the representative viewpoints. As such, it is anticipated that standard construction practices already incorporated into the design would provide the best fit with the existing local landscape and minimise visual impact through appropriate choice of external finish and colour. Additionally, due to the high number of existing large-scale industrial complexes that influence the LLT it is assessed that the impact associated with both projects would result in a limited change. It is assessed that there would be no significant cumulative effects.
- 3.7 The Humber Zero ES reports negligible air quality impacts from construction traffic and during operation. The VPI-B Project ES states that there would be negligible air quality effects during construction and operation. Given that both projects would result in negligible increases in pollutant concentrations, no cumulative effects are anticipated.
- 3.8 The only other changes to those in the 2019 and 2022 Short List are:
- Able Humber Ports Ltd - Able Marine Energy Park Material Change 2. Two amendments to the layout of the quay that was authorised by the Able Marine Energy Park Development Consent Order 2014 and one amendment to a footpath diversion to go round the end of a railway rather than crossing it.
 - South bank of the river Humber: Application for a Non-Material Change Able Marine Energy Park DCO, 2014, sought to move an area proposed for ecological mitigation (Area A) to a new site outside the order limits next to two other areas being utilised for ecological mitigation.
- 3.9 These do not require further assessment as the main developments (to which changes were sought via these applications) have been considered in the baseline assessment and given the nature of the changes would not change the conclusions of the original assessment in the ES or the 2022 assessment.

4. Combination Effects

- 4.1 As there is no change to the original ES as a result of the NMC, there are no changes to combination effects.

5. Summary and Conclusion

- 5.1 The above identified developments have been reviewed and assessed with regards to the Planning Inspectorate Advice Note 17 'Cumulative effects assessment relevant to nationally significant infrastructure projects'.
- 5.2 This assessment of cumulative impacts has reviewed the original ES cumulative assessment and the updated 2022 cumulative assessment for the potential for cumulative impacts to arise from one or several of the other developments together with the Project.
- 5.3 Given that the NMC has been assessed as making no material difference to the potential effects of the Project itself and is therefore within the assessment envelope previously assessed and consented,

(including any minor changes to existing developments presented above), there are no identified changes to the cumulative assessment or significance of effects as presented in the original ES.

