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17. Landscape and Visual Amenity

17.1 Introduction

17.1.1 This chapter of the Preliminary Environmental Information (PEI) Report addresses the potential effects of the Proposed Development on landscape character (as a resource in its own right) and visual amenity. This chapter is supported by Figures 17-1 to 17-30 (PEI Report, Volume II) and Appendices 17A-17C (PEI Report, Volume III).

17.2 Legislation and Planning Policy Context

Legislative Background

17.2.1 The landscape and visual impact assessment takes account of the legislation relevant to landscape and visual issues, including the aims of the European Landscape Convention (Council of Europe, 2020).

Planning Policy Context

National Planning Policy

- 17.2.2 The Overarching National Policy Statement (NPS) for Energy EN-1 (BEIS, 2011) includes a number of statements pertinent to the potential landscape, including Green Infrastructure and visual impacts of energy infrastructure in general.
- 17.2.3 Section 5.9 of EN-1 sets out the requirements for assessing and mitigating landscape and visual impacts of proposed nationally significant energy infrastructure projects. The scope of the assessment should include construction phase effects as well as the effects of the completed facility and its operation on landscape components, landscape character and views and visual amenity. The assessment also considers the potential effects associated with the decommissioning of the Proposed Development.
- 17.2.4 In terms of mitigation, EN-1 encourages the reduction in scale of the buildings taking into consideration function, appropriate siting, design including colours and materials, and landscaping schemes to mitigate adverse landscape and visual impacts.
- 17.2.5 Paragraphs 5.9.15 to 5.9.16 to EN-1 state:
- 17.2.6 *‘The scale of such projects means that they will often be visible within many miles of the site of the proposed infrastructure. The IPC (Infrastructure Planning Commission) should judge whether any adverse impact on the landscape would be so damaging that it is not offset by the benefits (including need) of the project.*
- 17.2.7 *In reaching a judgment, the IPC should consider whether any adverse impact is temporary, such as during construction, and/or whether any*



adverse impact on the landscape will be capable of being reversed in a timescale that the IPC considers reasonable.'

- 17.2.8 Paragraph 5.9.18 of EN-1 states *'All proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites. The IPC will have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the project'*.
- 17.2.9 Paragraph 5.9.22 of EN-1 states *'Within a defined site, adverse landscape and visual effects may be minimised through appropriate siting of infrastructure within that site, design including colours and materials, and landscaping schemes, depending on the size and type of the proposed project. Materials and designs of buildings should always be given careful consideration.'*
- 17.2.10 Section 5.10 of EN-1 establishes the requirements for identifying and mitigating impacts of energy infrastructure projects on open space (including green infrastructure (GI)).
- 17.2.11 An energy infrastructure project will have direct effects on the existing use of the proposed site and may have indirect effects on the use, or planned use, of land in the vicinity for other types of development. Given the likely locations of energy infrastructure projects there may be particular effects on open space including GI.
- 17.2.12 Where GI is affected, the Secretary of State (SoS) should consider imposing requirements to ensure the connectivity of the green infrastructure network is maintained in the vicinity of the development and that any necessary works are undertaken, where possible, to mitigate any adverse impact.
- 17.2.13 The NPS for Fossil Fuel Electricity Generating Infrastructure, EN-2 provides further detail with respect to the required impacts for large-scale structures associated with fossil fuel generating stations.
- 17.2.14 Section 2.6.5 of EN-2 states that *'It is not possible to eliminate the visual impacts associated with a fossil fuel generating station. Mitigation is therefore to reduce the visual intrusion of the buildings in the landscape and minimise impact on visual amenity as far as reasonably practicable'*. The design should provide the best fit with the existing local landscape and to minimise the impact through use of appropriate external finishes and colour choice and to enclose low level buildings and structures to reduce impacts from nearby receptors.
- 17.2.15 The National Planning Policy Framework (Ministry of Housing, Communities and Local Government (MHCLG), 2019) includes policies that ensure developments are *'sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change'*.
- 11.1.1 Policy 15: Conserving and enhancing the natural environment recognises that the environment should be enhanced by:



- *'protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
- *recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;*
- *maintaining the character of the undeveloped coast, while improving public access to it where appropriate;*
- *minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*
- *preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and*
- *remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate'.*

Regional Planning Policy

17.2.16 The Tees Valley Combined Authority does not have any planning policies relevant to the Proposed Development in relation to landscape and visual amenity, therefore the policies of members of the combined local authority have been reviewed further below.

Local Planning Policy

17.2.17 The planning policy documents that are relevant to the site are:

- Redcar & Cleveland Local Plan (adopted May 2018) (RCBC, 2018);
- Redcar & Cleveland Landscape Character SPD (adopted March 2010) (RCBC, 2010);
- Stockton-on-Tees Local Plan (adopted January 2019) (Stockton-on-Tees Borough Council, 2019); and
- Hartlepool Local Plan (adopted 2018) (Hartlepool Borough Council, 2018).

17.2.18 These documents contain a number of policies of relevance to the Proposed Development in landscape and visual terms as set out below.

17.2.19 Redcar & Cleveland Local Plan (adopted May 2018) (RCBC, 2018) policies:

- N 1 Landscape;
- LS 1 Urban Area Spatial Strategy; and
- SD 4 General Development Principles.

- 17.2.20 Policy N1 Landscape aims to protect and enhance Redland & Cleveland Borough Council's (RCBC) landscape. The policy states developments will not be permitted where they would lead to the loss of features important to the character of the landscape, its quality and distinctiveness, unless the benefits of development clearly outweigh landscape considerations.
- 17.2.21 Policy N1 Landscape discusses Locally Important Landscapes. RCBC's rural landscapes have been split into two categories:
- Sensitive Landscapes, in which much landscape structure is present to give high 'strength of character' which is sensitive to change; and
 - Restoration Landscapes, where the land has lost a greater or lesser degree of landscape structure and would benefit from measures to restore that structure and character.
- 17.2.22 Sensitive Landscapes and Restoration Landscapes are shown on Figure 17-1: Landscape Context (PEI Report, Volume II).
- 17.2.23 Policy N1 states that Sensitive Landscape Areas including the historic landscape of Eston Hills will prioritise the retention of elements that make up the landscape character. The policy states that in Restoration Landscape areas opportunities should be taken to repair or reinstate the landscape structure as part of development.
- 17.2.24 Policy LS1 Urban Area Spatial Strategy aims to protect and enhance the character and special qualities of the Eston Hills.
- 17.2.25 Policy SD4 General Development Principles assesses the suitability of a site or location. The policy states that when locating new development, important environmental, built and historic assets will be protected.
- 17.2.26 Stockton-on-Tees Local Plan (adopted January 2019) Policies (Stockton-on-Tees Borough Council, 2019):
- SD5 - Natural, Built and Historic Environment;
 - ENV5 - Preserve, Protect and Enhance Ecological Networks, Biodiversity and Geodiversity;
 - ENV6 - Green Infrastructure, Open Space, Green Wedges and Agricultural Land; and
 - SD8 – Sustainable Design Principles.
- 17.2.27 Policy SD5 - Natural, Built and Historic Environment aims to ensure the conservation and enhancement of the environment.
- 17.2.28 Policy ENV5 - Preserve, Protect and Enhance Ecological Networks, Biodiversity and Geodiversity states *'development proposals will be supported where they enhance nature conservation and management, preserve the character of the natural environment and maximise opportunities for biodiversity and geological conservation particularly in or adjacent to Biodiversity Opportunity Areas in the River Tees Corridor, Teesmouth and Central Farmland Landscape Areas'*.



17.2.29 Policy ENV6 - Green Infrastructure, Open Space, Green Wedges and Agricultural Land aims to *'protect and support the enhancement, creation and management of all green infrastructure to improve its quality, value, multi-functionality and accessibility'*.

17.2.30 Policy SD8 – Sustainable Design Principles states *'new development to be designed to the highest possible standard, taking into consideration the context of the surrounding area'*. The policy aims to ensure new development fits in with the surrounding area.

17.2.31 Hartlepool Local Plan (adopted 2018) (Hartlepool Borough Council, 2018):

- RUR1: Development in the Rural Area; and
- NE1: Natural Environment.

17.2.32 Policy RUR1: Development in the Rural Area aims *'to ensure the rural area is protected and enhanced to ensure that its natural habitat, cultural and built heritage and rural landscape character are not lost'*.

17.2.33 Policy NE1: Natural Environment states *'the borough council will protect, manage and enhance Hartlepool's natural environment'*.

17.3 Assessment Methodology and Significance Criteria

17.3.1 The landscape and visual impact assessment has been based on the following best practice guidance:

- Guidelines for Landscape and Visual Impact Assessment, Third Edition (Landscape Institute and Institute of Environmental Management and Assessment, 2013); and
- Technical Guidance Note (TGN) 06/2019: Visual Representation of Development Proposals (Landscape Institute, 2019).

17.3.2 Baseline data has been gathered from a study of Ordnance Survey (OS) maps and aerial photographs, publicly available documents such as landscape character assessment documents from local authorities within the immediate area and national character mapping available from Natural England. A site visit has also been undertaken to provide valuable background knowledge on the existing character and impact of the Proposed Development on receptor groups such as residents and to record views from representative viewpoints.

Impact Assessment and Significance Criteria

17.3.3 A detailed description of the assessment methodology is included in Appendix 17B: Landscape and Visual Assessment Methodology (PEI Report, Volume III) and is summarised below.

17.3.4 For the purposes of comparison and in order to establish a 'control' scenario against which the effects of the Proposed Development may be assessed, the baseline conditions are projected forward to produce a future 'no



development' (baseline) scenario. The potential impacts of the Proposed Development upon the baseline landscape and receptor views are then identified and the significance of any resulting effects is then assessed. Potential landscape and visual impacts and the resulting effects (both adverse and beneficial) are considered for the following scenarios:

- Construction (2022-2026);
- Opening (start of operation) (2026);
- Operation (15 years post opening) (2041); and
- Decommissioning (2051).

17.3.5 Impacts may be temporary, permanent, short-term or long-term. Landscape and visual impacts may be further categorised as being either direct, i.e. originating from the development itself; or indirect and secondary, from consequential change resulting from the development.

17.3.6 In order to provide a level of consistency and transparency to the assessment and allow comparisons to be made between the various landscape and visual receptors subject to assessment, the assessment of effects is based on pre-defined criteria as outlined in Table 17B-16 within Appendix 17B: Landscape and Visual Assessment Methodology (PEI Report, Volume III). When assessing the degree of individual effects, these may fall across several different categories and professional judgement is therefore used to determine which level best fits the overall effect on a landscape or visual receptor. GLVIA 3 dictates that this is not a prescriptive process and is provided as a guide to how combination of sensitivity and magnitude are typically combined.

Landscape Impact Assessment Methodology

17.3.7 In assessing the predicted effects from any likely impacts to the landscape resulting from the Proposed Development, the following criteria are considered:

- landscape character;
- landscape sensitivity; and
- magnitude of likely impacts that may affect the landscape.

17.3.8 Landscape impacts are considered, including both the direct and indirect impacts of the Proposed Development upon landscape elements and features (or components), as well as the impact upon the general landscape character of the surrounding area.

17.3.9 The susceptibility of the landscape to change is the degree to which a particular Landscape Character Area (LCA) or feature can accommodate changes or new features without unacceptable detrimental effects to its essential characteristics. Susceptibility is combined with value to determine sensitivity.

17.3.10 The magnitude of a predicted landscape impact relates to the size, extent or degree of change likely to be experienced as a result of the Proposed



Development. The magnitude takes into account whether there is a direct impact resulting in the loss of landscape components, or a change beyond the land-take of the scheme that might have an effect on the character of the area, and whether the impact is permanent or temporary.

- 17.3.11 The relationship between sensitivity and magnitude of impact allows an assessment of the significance of predicted landscape effects to be made. Diagram 17-1 below presents a diagram to describe the relationship between sensitivity and magnitude of impacts on the landscape to determine the effect.
- 17.3.12 The Guidelines for Landscape and Visual Impact Assessment (GLVIA 3) (Landscape Institute and Institute of Environmental Management and Assessment, 2013) dictates that this is not a prescriptive process and is provided as a guide to how combinations of sensitivity and magnitude are typically combined. For the purposes of this assessment, moderate and major effects will be deemed 'significant' in accordance with standard EIA practice; while minor and negligible effects are considered to be 'not significant'. Where significant environmental effects are identified, measures to mitigate these effects are proposed (where feasible) and the remaining residual effects are identified.
- 17.3.13 A full explanation of the criteria used to assess sensitivity, magnitude of impact and classification of landscape effects is included in Appendix 17A: Landscape Character (PEI Report, Volume III).

Visual Impact Assessment Methodology

- 17.3.14 The assessment of effects likely to result from visual impacts is structured by the susceptibility of receptor groups to change. Receptors are primarily identified through the combination of: definition of the zone of theoretical visibility (ZTV), within which views of the development are likely to be possible; and professional judgment. The sensitivity of each receptor group is then evaluated as being high, medium, low or very low through combination of the value of view and susceptibility of the receptor.
- 17.3.15 Views from each identified representative viewpoint are recorded, considering the distance from the Site (as the crow flies), receptor type, and a short description of the view.
- 17.3.16 For the purposes of assessment, the sensitivity of a receptor and the magnitude of a likely impact are combined to assess the effects that the Proposed Development are predicted to have on existing baseline visual conditions for that given receptor. As previously described for the landscape impact assessment, specific terminology is used to describe the magnitude of impact (see Appendix 17B: Landscape and Visual Assessment Methodology for details (PEI Report, Volume III)). Diagram 17-1 sets out the criteria used to assess the relative significance of visual effects.
- 17.3.17 Although some visual receptors may consider the Proposed Development to be visually appealing or interesting, the assessment follows standard best practice methods, and therefore assumes a 'worst case' scenario whereby significant changes to views as a result of new tall/ large structures or

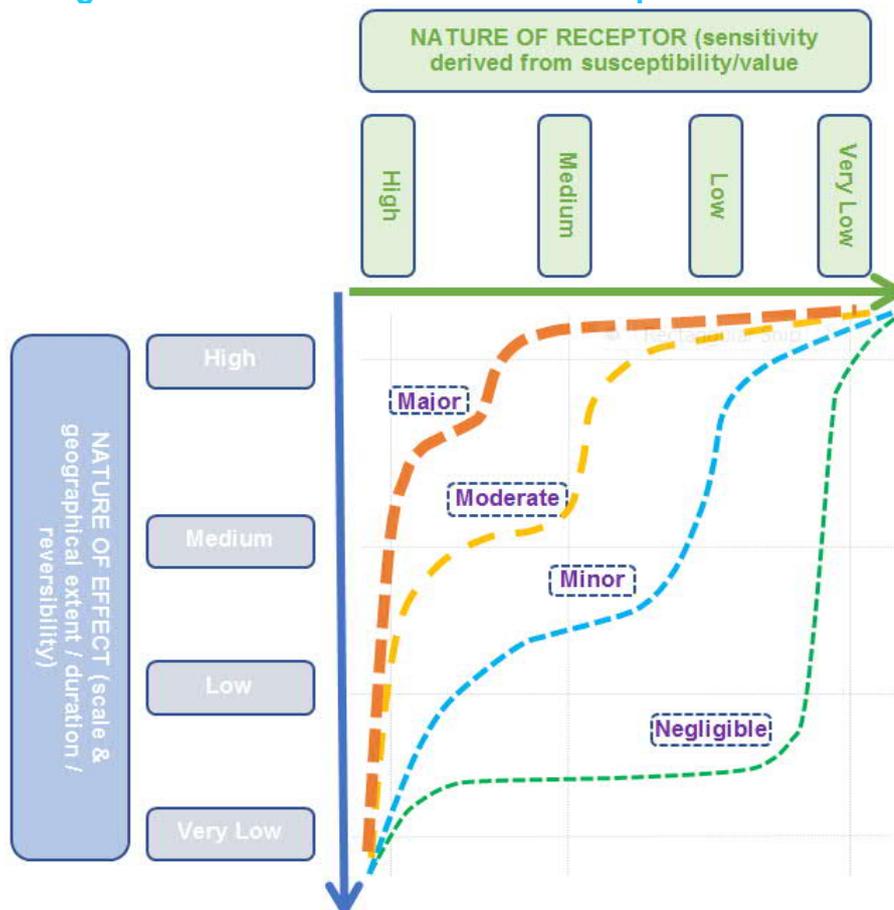


buildings in an existing relatively open area are generally considered to be adverse.

17.3.18 Viewpoint photography accompanying this assessment has been undertaken in accordance with best practice in Landscape Institute Technical Guidance Note (TGN) 06/2019: Visual Representation of Development Proposals; Type 1 (annotated viewpoint photograph) and Type 3 (photowire).

17.3.19 The relationship between the sensitivity of receptors and the magnitude of likely impacts allows the relative significance of predicted effects on the landscape to be defined. Diagram 17-1 below describes the relationship, and so allow a relative level of significance of any predicted visual effects to be categorised. For the purposes of this assessment, moderate and major effects will be deemed 'significant' in accordance with standard EIA practice; while minor and negligible effects are considered to be 'not significant'. Where significant environmental effects are identified, measures to mitigate these effects are proposed (where feasible) and the remaining residual effects are identified.

Diagram 17-1: Classification of Landscape and Visual Effects





Key Parameters for Assessment

- 17.3.20 The landscape and visual impact assessment has been undertaken in accordance with the Planning Inspectorate Guidance Note Nine: Using the Rochdale Envelope (The Planning Inspectorate, 2012). The key measurements for the implementation for the Rochdale Envelope (i.e. the maximum parameters for the Proposed Development and in particular its main buildings and structures) are detailed in Table 4-1: Maximum Design Parameters (per CCGT Train), Chapter 4: The Proposed Development (PEI Report, Volume I).
- 17.3.21 The magnitude of visual impacts of the Proposed Development relate to (amongst other criteria) the size and scale of the structures and geographical extent of the area influenced by them. The assessment is based upon the largest possible dimensions for the Proposed Development, and a worst-case stack height of up to 120 m above ground level, as these are considered most likely to result in significant effects and represent the worst-case scenario. The stack height will be fixed at the DCO submission stage. The maximum dimensions are based upon the widest building footprint and tallest potential height as detailed in Table 4-1: Maximum Design Parameters (per CCGT Train) in Chapter 4: The Proposed Development (PEI Report, Volume I).
- 17.3.22 In addition to the Rochdale Envelope parameters, there are also limits of deviation within which the Proposed Development could be constructed. Given the space constraints of the limits of deviation for each part of the Proposed Development (in particular within the Power, Capture and Compressor site (PCC), where the largest structures will be located), and the fixed co-located stack locations, it is considered that the overall conclusions of the assessment presented in this chapter would not be materially affected by the positioning of the buildings and structures within these limits.
- 17.3.23 The assessment has assumed that all vegetation within the Electrical Connection Corridor will be removed at the construction stage as a worst-case scenario. Through the detailed design process it is envisaged that the route and construction methods will be further refined to enable the retention of important screening vegetation where possible.

Extent of Study Area

- 17.3.24 The extent of the Study Area is determined by the potential visibility of the Proposed Development in the surrounding landscape and is proportionate to the size and scale of the Proposed Development and nature of the surrounding landscape. Current guidance (GLVIA3) (Landscape Institute and Institute of Environmental Management and Assessment, 2013) states that the Study Area should include *'the full extent of the wider landscape around it which the proposed development may influence in a significant manner'*.
- 17.3.25 For the purposes of this LVIA the Study Area has been defined by a combination of ZTV analysis and professional judgement. Based upon the tallest element of the Proposed Development being the stacks (with a worst-case height of 120 m) it is considered that it is highly unlikely that significant



effects will be possible from further than 10 km from the boundary of the PCC. A Study Area of 2 km from the Natural Gas Connection Corridor and the CO₂ Gathering Network has been identified. An additional Study Area of 5 km has been identified for the Electrical Connection Corridor where electricity pylons may be installed. Based upon the nature of the Proposed Development within the Corridors and the Gathering Network, it is considered highly unlikely that significant effects will be possible further than 5 km from the Site boundary. In most cases both Study Areas overlap, as illustrated on Figure 17-1: Landscape Context (PEI Report, Volume II).

Sources of Information/Data

17.3.26 Two site visits have been undertaken by a Chartered Landscape Architect on 20th November 2019 and 23rd January 2020, to provide valuable background knowledge on the existing landscape character of the area and the potential impact of the Proposed Development on the surrounding community, and to record views from representative viewpoints.

Consultation

17.3.27 As part of the ongoing PEI Report and design development process, consultation is being undertaken through a two-staged consultation process, as described in Chapter 1: Introduction (PEI Report, Volume I).

17.3.28 Consultation was undertaken with local authorities located within the 10 km Study Area to agree the location of representative viewpoints. The consultation undertaken is set out in Table 17-1 and indicates how these have been addressed in the PEI Report

Table 17-1: Consultation Summary Table

Consultee	Date (method of consultation)	Summary of consultee comments	Summary of response/ how comments have been addressed
Planning Inspectorate	Scoping Request issued February 2019, Scoping Opinion received April 2019	The Environmental Statement (ES) should include a description of any local landscape character areas which could be impacted by the Proposed Development	Local landscape character areas and types have been included in the report within Section 17.4.
		ES should clearly explain any assumptions made in the landscape and visual assessment regarding the number, height, diameter and placement of the stacks.	A description of the Proposed Development is set out in Chapter 4: Description of the Proposed Development, section 4.1.1 (PEI Report, Volume I).
		Night-time impacts (such as from lighting) to landscape and visual receptors should be assessed where significant effects are likely to occur.	An assessment of the impacts of light pollution as required by NPS EN-1 has not been carried out within this PEI Report as the Lighting Strategy has not yet been prepared. The Lighting Strategy and the

Consultee	Date (method of consultation)	Summary of consultee comments	Summary of response/ how comments have been addressed
			<p>approach to necessary lighting of the Proposed Development will be appropriately assessed as part of the ES.</p>
		<p>The ES should also assess impacts to other types of recreational receptors including visitors to nature conservation sites and the scheduled monuments at Eston Nab as well as users of the Tees Bay and Estuary where significant effects are likely to occur.</p> <p>The ES should justify the choice of sensitive receptor locations with reference to the extent of the likely impacts and make effort to agree these with the relevant consultation bodies.</p>	<p>The PEI Report assesses the impact on recreational receptors at a number of locations including nature conservation sites, Cleveland Golf Club, Eston Nab, Tees Bay and Estuary.</p> <p>Potential viewpoint locations have been sent to all relevant authorities for agreement. We are currently waiting for responses from Redcar and Cleveland Borough Council and North Yorkshire County Council. Any additional viewpoints identified through this consultation process will be reviewed and included in the ES, where required. A justification in the selection of representative viewpoints to be assessed is included in Appendix 17A: Landscape Character (PEI Report, Volume III).</p>
		<p>The ES should include a clear justification in support of the Study Area and ensure it is depicted on corresponding figures to aid understanding</p>	<p>The justification for the size of Study Area is set out in paragraphs 17.3.24 and 17.3.25 and on Figure 17-1: Landscape Context (PEI Report, Volume II).</p>
		<p>The Applicant should make effort to agree both the number and location of viewpoints and photomontages with relevant consultation bodies and justify the choices in the ES.</p> <p>Appropriate viewpoints should be selected to capture any long views of the Proposed Development, including from the north side of the River Tees and the scheduled monuments at Eston Nab. Both winter and summer views should be included.</p>	<p>Potential viewpoint locations have been sent to all relevant authorities for agreement. We are waiting responses from Redcar and Cleveland Borough Council and North Yorkshire County Council. Any additional viewpoints identified through this consultation process will be reviewed and included in the ES where required.</p> <p>Locations of potential photomontage locations will be agreed with relevant consultation bodies.</p> <p>Long views from Hartlepool and Eston Nab have been assessed within the LVIA chapter.</p> <p>Winter views have been included in the PEI Report and summer 2020 views will be considered as part of the ES.</p>

Consultee	Date (method of consultation)	Summary of consultee comments	Summary of response/ how comments have been addressed
		<p>The ES should clearly describe any proposed planting and how the landscape and visual effects are expected to alter as any such planting matures. If mitigation plans are proposed, drafts of these documents should be provided with the ES</p>	<p>It is assumed that all mature vegetation within the Electrical Connection Corridor will be maintained where possible. If removal of mature vegetation is unavoidable it will be replaced with suitable vegetation in the next available planting season after the construction works are complete. The detail of any proposed planting scheme and further details on the design of the Electrical Connection Corridor will be submitted as part of the ES.</p>
		<p>The ES should explain how the siting and design of the proposed structures (and the materials to be used) have been selected with the aim of minimising impacts to landscape and visual receptors.</p>	<p>Detailed in Section 17.5 Design Development and Impact Avoidance.</p>
Stockton on Tees Borough Council	Email sent on 16 th January 2020.	<p>Requested two additional viewpoints.</p> <p>One along the newly opened 'England Coast Path' a national long-distance footpath which runs parallel to Seaton Carew Road, from the Transporter Bridge to Greatham Creek and on towards the North Gare in Hartlepool. This viewpoint could also consider the users of RSPB Saltholme Reserve, a significant local visitor attraction.</p> <p>The second within Cowpen Bewley Woodland Park, where there is a local viewpoint on a small hill.</p>	<p>Both viewpoints were visited and included in the assessment.</p>
Redcar and Cleveland Borough Council	Email sent on 16 th January 2020	No response.	



17.4 Baseline Conditions

Existing Landscape and Seascape Baseline

Landscape and Seascape Characterisation

National Character Areas

- 17.4.1 At a national scale Natural England provide 159 National Character Area (NCA) profiles. Each profile includes a description of the natural and cultural features that shape the landscape. The Study Area contains 3 NCA profiles
- NE435: NCA Profile:15: Durham Magnesian Limestone Plateau (Natural England, 2013);
 - NE439: NCA Profile: 23 Tees Lowlands (Natural England, 2014); and
 - NE352: NCA Profile 25: North York Moors and Cleveland Hills (Natural England, 2015).
- 17.4.2 The relevant characteristics of these NCA's are described below and in full in Appendix 17B: Landscape and Visual Proposed Methodology (PEI Report, Volume III); NCA are illustrated in Figure 17-3: Landscape Character Plan (PEI Report, Volume II).
- 17.4.3 NCA Profile 23: Tees Lowlands covers the Proposed Development and the majority of the Study Area. It is characterised by predominately low lying arable farmland and open plain. The industrial development fringing the tidal reaches of the River Tees contrasts with the surrounding rural landscape. Principal transport corridors, power lines and industrial infrastructure are notable elements in the landscape and the industrial installations around Teesmouth form a prominent skyline, juxtaposed with expansive mudflats, sand dunes and salt marshes.
- 17.4.4 NCA Profile 25: North York Moors and Cleveland Hills NCA lies in the south-east of the Study Area and is characterised by upland plateaux and hills dissected by a series of dales, some broad and sweeping but others narrow, steep sided and wooded. The variation creates strong contrasts between open moors and enclosed valleys. The valley landscapes are characterised by pastoral farming providing a strong visual contrast with the bracken fringed moorlands above. The extensive areas of heather moorland on plateaux and hills creates a strong sense of space, expansiveness and openness and some 85 percent of the area falls within the North York Moors National Park. Large-scale arable landscapes are characteristic within the south and east. The NCA affords panoramic views over moorland plateaux, ridges and dales and out over surrounding lowland landscapes and the North Sea.
- 17.4.5 NCA Profile 15: Durham Magnesian Limestone Plateau lies in the north-west of the Study Area and is characterised by large-scale, open farmland with widespread urban and industrial development in the north. The dramatic coastline with exposed cliffs, sand dunes and beaches that support large populations of waders and sea birds. There is a strong influence from the historic mining industry in the form of ex-mining towns and villages and reclaimed colliery sites.



National Seascape Character Assessment

- 17.4.6 At a national scale the Study Area includes the Marine Character Area (MCA): North East described in the National Seascape Character Assessment for England (MM01134) (Marine Management Organisation, 2018) and illustrated on Figure 17-3: Landscape Character Plan (PEI Report, Volume II).
- 17.4.7 The North East MCA is subdivided into nine MCA profiles. MCA 22 Tyne, Tees and Wear Estuaries and Coastal Waters lies within the Study Area. MCA 21 North Yorkshire Coastal Waters lies at the very eastern edge of the Study Area. As a result of the limited extents of MCA 21 North Yorkshire Coastal Waters at the eastern edge of the Study Area it has not been considered further in the assessment. The relevant characteristics of the MCA 22 Tyne, Tees and Wear Estuaries and Coastal Waters are summarised below and in full in Appendix 17B: Landscape and Visual Proposed Methodology (PEI Report, Volume III).
- 17.4.8 MCA 22 Tyne, Tees and Wear Estuaries and Coastal Waters lies to the north of the Study Area and encompasses Tyne Estuary. It is characterised by shelving coastal waters off the extensively developed coast at Tyne, Tees and Wear lowlands contrasting with areas of undeveloped coastline. The coastline is perceived as well-lit from the sea particularly around Middlesbrough due to the extent of industrial facilities. The general absence of headlands results in a wild seascape when storms sweep in from the North Sea. Expansive views across the north see allow for prominent views of the offshore wind farms located within the MCA. There is good coastal access along much of the coast providing increasing opportunities for recreation and tourism, including fishing and walking along stretches of the England Coast Path.

Regional

- 17.4.9 The Site and Study Area is not covered by any regional Landscape Character Assessment.

Local

- 17.4.10 The Study Area is covered by three local landscape character assessments:
- Redcar and Cleveland Landscape Character Assessment (RCBC, 2006);
 - Stockton and Tees Landscape Character Assessment (Stockton-on-Tees Borough Council, 2011); and
 - Hartlepool Landscape Assessment (Hartlepool Borough Council, 2000).

Redcar and Cleveland Landscape Character Assessment

- 17.4.11 Redcar and Cleveland Landscape Character Assessment (RCBC, 2006) divides the rural areas of the Borough into four broad Landscape Character Tracts (LCTr). These are defined by combinations of physical and land cover characteristics and geographical context that have a recognisable and distinctive local identity setting them apart from neighbouring areas. The assessment divides the area into four Landscape Tracts. Four landscape tracts fall within the Study Area. The relevant characteristics of these landscape tracts are summarised below and in full in Appendix 17B:



Landscape and Visual Proposed Methodology (PEI Report, Volume III). The LCTrs are illustrated on Figure 17-3: Landscape Character Plan (PEI Report, Volume II).

- 17.4.12 The PCC is bordered by the Redcar Flats LCTr which is characterised by arable farmland within the inland part of the tract and a coastal zone, which is classified as Sensitive Landscape. Any development within this coastal zone would be very widely visible across the LCTr. Few landscape features are present to interrupt the open, gently sloping landscape. The industrial and urban skyline features have a strong local influence on landscape character, including the industry at Wilton Works. Other Sensitive Landscapes include the parkland at Kirkleatham and the wooded valley at Hazel Grove. The remainder of the tract is classified as Restoration Landscape. Existing landscape features are sparse and the retention of existing features is important as a setting for new development, as the basis for additional planting or for the creation of new planting.
- 17.4.13 The Eston Hills LCTr borders the Study Area to the south and is characterised by prominent steep-sided hills including Eston Hills, higher land at Upleatham and between Skelton and Slapewath which are linked by low saddles. Open moorland, wooded hillsides and escarpments contribute to the distinctive character of this area. Extensive views are available from many locations. The landscapes on higher land within this LCTr are classified as Sensitive Landscapes with the remainder classified as Restoration Landscapes.
- 17.4.14 The Guisborough Lowland LCTr lies on the southern edge of the Study Area is characterised by a gently undulating arable farmland with a distinctively lightly wooded character. The parkland at Guisborough Hall is classified as Sensitive Landscape with the remainder of the LCTr classified as Restoration Landscape.
- 17.4.15 A small section of the East Cleveland Plateau LCTr lies to east of the Study Area and characterised by open, elevated, rural coastal plateau. The plateau is dissected by deeply-incised wooded valleys. The North Yorkshire and Cleveland Heritage Coast stretches from Saltburn southwards. The area of the LCTr that is located within the Study Area is classed as a Sensitive Landscape.

Stockton-on-Tees Landscape Character Assessment

- 17.4.16 The Study Area includes the East Billingham to Teesmouth Landscape Character Area (LCA) and the Thorpe and Billingham Beck Valley LCA as defined by Stockton on Tees Landscape Character Assessment 2011. The relevant characteristics of these LCA are summarised below and in full in Appendix 17B: Landscape and Visual Proposed Methodology (PEI Report, Volume III). The LCAs are illustrated on Figure 17-3: Landscape Character Plan (PEI Report, Volume II).
- 17.4.17 The East Billingham to Teesmouth LCA lies to the west of the Study Area within the Proposed Development and is characterised by industrial landscapes to the east and west and large areas of open space including wetlands and reclaimed semi improved pasture. Large storage tanks and



stacks dominate views towards the east of the LCA. The open spaces contain significant wildlife value with a number of ecological designations including the SSSI's at Seal Sands, Cowpen Marsh, and Teesmouth and Cleveland Coast SPA site and Ramsar site. Ridge and furrow is present within the arable land around Cowpen Bewley. Cowpen Bewley Woodland Park provides the only wooded element within this LCA.

17.4.18 The Thorpe and Billingham Beck Valley LCA lies at the western edge of the Study Area and is characterised by a wide beck valley. The LCA contains semi-improved and improved pasture influenced by "A" roads and the Stockton to Darlington railway line.

Hartlepool Landscape Assessment

17.4.19 The Hartlepool Landscape Assessment, 2000 defines seven Landscape Character Types (LCT). The Study Area includes four LCT as defined by Hartlepool Landscape Assessment: Coastal Fringe, Estuarine, Rural Fringe and Undulating Farmlands. The characteristics are summarised below and in full in Appendix 17B: Landscape and Visual Proposed Methodology (PEI Report, Volume III). The LCTs are illustrated on Figure 17-3: Landscape Character Plan (PEI Report, Volume II).

17.4.20 The Coastal Fringe LCT lies in the north of the Study Area. The LCT encompasses the beach and adjoining areas of land which have a maritime influence. The LCT is characterised by exposed tidal beaches, exposed rock and sea cliff areas, man-made features such as coastal defences, harbour or sea wall installations. Coastal dunes, coastal grassland and salt marshes or evident within the LCT.

17.4.21 The Estuarine LCT, located north of Teesmouth estuary, is defined by flat, featureless plains. The area includes semi-natural open water, associated salt marsh, reed beds, sand and mud flats. These areas also typically include low lying agricultural land, low tree and shrub cover and some coastal grassland. The flat low-lying nature of the LCT results in widespread views of the Teesside industrial complex which has a strong visual influence over the LCT. Rural Fringe Landscape LCT lies in the north west of the Study Area and relates to those areas which lie in close proximity and are influenced by the adjacent urban development areas.

17.4.22 The Undulating Farmland LCT is located in the north-west of the Study Area and largely defines the rural area of Hartlepool. The LCT is characterised by varied field pattern often bound by hedgerows and tree belts. Although, where the removal of hedgerows and field enlargement has taken place this disrupts the enclosed sense of scale and introduces a barren, industrial element into the landscape.

17.4.23 The Rural Fringe LCT is located in the north-west of the Study Area includes areas adjacent or in close proximity to the urban environment which typically have either lost or had the rural character influenced by adjacent urban development. The LCT extends along the built edge of Hartlepool and surrounds the built edge of the outlying village settlement. Areas are often unmanaged, poorly maintained or enclosed within degraded boundaries.



Vegetation Cover

- 17.4.24 Tree and shrub cover within the north-east of the Study Area is generally sparse reflecting the estuarine character of the area. Tree cover is largely located along main arterial routes including the A1085 and the A1042. A small number of wooded landscape areas are present in the south-east of the Study Area at Dormanstown within Foxrush Farm, Kirkleatham within the former estate, the grounds of Wilton Castle, Wilton Wood, Dave's Wood and Lazenby Bank Nature Reserve.
- 17.4.25 Hedgerows, where present, tend to be sparse and gappy which reduce the sense of enclosure within the farmland areas. Important wetland is located at Cowpen Bewley.
- 17.4.26 Vegetation within the PCC is very limited and comprises areas of sparse grassland reflecting the former usage of the site.

Topography and Drainage

- 17.4.27 The topography of the Study Area in the north is relatively flat, generally lying approximately between 1 m and 25 m Above Ordnance Datum (AOD). Land gradually rises in the south with an area of high ground located to the south of the Study Area around Eston Moor where the ground rises to 239 m AOD at Eston Beacon.
- 17.4.28 The River Tees flows south to north through the centre of the Study Area broadening out into the Tees Mouth estuary. The North Sea is located within the northern part of the Study Area. The wetland at Cowpen Bewley is linked by a number of streams and is part of a former clay pit.

Settlements

- 17.4.29 The Study Area is characterised by large to medium sized settlements. Settlements in close proximity to the proposed Site boundary include the city of Middlesbrough and its suburbs, which encompass a large area in the south-west of the Study Area. Hartlepool town and Seaton Carew seaside resort are located in the north and the edge of Billingham town is located in the west. The seaside resorts of Redcar, Maske by the Sea, and Saltburn by the Sea are located in the east of the Study Area. The northern section of Guisborough market town is located in the south-east of the Study Area.

Communications

- 17.4.30 Settlements are connected by a series of large "A" roads. The A1085 lies to the south-east of the Study Area and runs south-west to meet the A66 and the A172 further west. The A1042 runs southwards from the A1085 to meet the A174 leading to the southern edge of Middlesbrough. The A178 lies to the north of Study Area connecting the A1046 at Port Clarence to Hartlepool. The A689 lies to the north of the Study Area and runs south west connecting Hartlepool to the A19 which lies immediately outside the Study Area.
- 17.4.31 A number of Public Rights of Way (PRoW) are located within the Study Area. Bridleways Redcar and Cleveland 116 32/1, 33/1 and 36/1 lie near the coast, west of Redcar east of the PCC. Further bridleways, Redcar and Cleveland 116 9/1 and 9/2 lie near to the north of Wilton Chemical Works connecting to footpaths Redcar and Cleveland 102 2/5, 31/2, and 31/3 running south-west to Middlesbrough.



17.4.32 The long-distance route 'England Coast Path: North East' follows the north-east coast line within the Study Area, before it turns south-west, inland to follow a route along a disused railway line at the edge of the industrial area which borders the River Tees. The route then follows closer to the edge of the Tees, before it crosses the water at the Newport Bridge, following the route of the A1032 to the north, then east. It then turns north and follows the A178, deviating to the east towards North Gare Sands before it then follows the A178 along the coast.

17.4.33 The long-distance path Teesdale Way starts at South Gare lighthouse to the north where it runs south before linking with the England Coast Path route along the south of the River Tees. It crosses the Newport Bridge and then turns south, following the northern bank of the River Tees.

The Site and Its Immediate Setting

17.4.34 The full extent of the Site is defined by the proposed Site boundary, shown on Figure 1.1: Site Location Plan (PEI Report, Volume II). The development areas are shown on Figures 3.2A-E (PEI Report, Volume II) and detailed in Chapter 4: Proposed Development (PEI Report, Volume I).

17.4.35 The Site and surrounding area are heavily influenced by large industrial structures and complexes and residential settlements. The surrounding landscape contains localised tranquil areas including along the coast, River Tees and inland nature reserves, although the large-scale structures are ever present within views.

17.4.36 To the west of the PCC, within the proposed Site boundary, lies large industrial plant and equipment from the former SSI Steelworks, which is now closed. The South Gare breakwater lies further to the north-west.

17.4.37 Coatham Sands and the North Sea coast lie within the proposed Site boundary to the north. To the north-east of the proposed Site boundary lie the coastal settlements of Warrenby and Coatham.

17.4.38 To the south of the Site lies the Northumbrian Water Bran Sands sewage treatment plant, operational land of PD Ports Teesport and the Wilton International industrial complex. Similar industrial complexes are present at Seal Sands and Billingham on the north bank of the River Tees, west of the PCC. Areas of rough grassland remain between these industrial areas.

17.4.39 The Redcar Bulk Terminal is located immediately east of the PCC within the proposed Site boundary, on the south bank of the River Tees.

17.4.40 The proposed Site boundary lies within the Teesside industrial areas. Located to the south-east are the residential areas of Lazenby and Wilton. To the south is the residential area of Grangetown. Cowden Marsh and Seal Sands are located to the north-west on the northern side of the River Tees.

17.4.41 The PCC lies between approximately 4 to 11 m AOD and currently comprises large-scale plant and buildings associated with the former steelworks including a raw materials handling facility, sinter plant and extensive conveyor system, with large open land areas that were previously utilised for raw materials storage and processing. The western portion of the



former steelworks site includes former coke ovens and the Redcar Blast Furnace, which is approximately 111 m high and a local non-designated heritage asset. Within the PCC there are no natural features of noteworthy landscape value.

Value of the Landscape Receptor

17.4.42 At a local level the Study Area encompasses fifteen Conservation Areas illustrated on Figure 17-1: Landscape Context (PEI Report, Volume II). The Kirkleatham Conservation Area lies immediately adjacent to the proposed Site boundary to the east. The Wilton Conservation Area lies adjacent to the proposed Site boundary to the south.

17.4.43 There is one Registered Park and Garden within the Study Area. Albert Park, Grade II listed, is located in the south-west of the Study Area within Middlesbrough. Table 17-2 below describes the factors relating to the value of the landscape at the PCC and Study Area scale.

Table 17-2: Non-designated Landscape Areas/ Features

Factor	Study Area	The proposed Site
Landscape quality (condition)	The landscape of the Study Area is predominantly open, low lying land around the coast, influenced by industry, pylons and transport routes. Land rises to the south at Eston Hills and is influenced by wooded areas and farmland. Landscape quality is poor where industry and power stations are present. High quality land is present around Eston Nab, parts of the coast and the north east of the Study Area.	The PCC is industrial and is typical of the immediate area and the wider Study Area. The Natural Gas and Electrical Connection Corridors and CO ₂ Gathering Network land-use relates to industrial development and transport corridors. It also includes sections of the Tees Estuary and beachfront and are typical of the immediate area and the wider Study Area.
Scenic quality	The coastal landscape to the north-east and south-east of the Study Area provides some scenic quality where there is limited influence of industrial complexes, expansive sea views and historic built form. Teesside industrial complex has a strong visual influence on the generally flat, low-lying surrounding landscape.	The PCC has very low scenic quality due to its current use. The Connection Corridors have some scenic quality in the north due to the coastal landscape, however it is heavily influenced by the Steel works.
Rarity	The landscape of the Study Area contains regionally important built heritage examples including a First World War early warning acoustic mirror. The hillfort on Eston Nab is the only surviving Iron Age hillfort in the region.	With the removal of the he PCC contains the Redcar Blast Furnace which is a relatively rare, well preserved example of its type that is a non-designated heritage asset. The Connection Corridors contain no rare elements or features.
Representativeness	The industrial nature of the landscape within the Study Area is not representative of the wider landscape. The coastal and rural nature of the Study Area is typical of the wider landscape context regionally.	The PCC is representative of the surrounding industrial area. The Connection Corridors are representative of the surrounding industrial area.
Conservation interests	The Study Area contains fifteen conservation areas, 1158 listed buildings Locally Important Landscapes including the historic landscape of the Eston Hills, Sites of Special Scientific Interest (SSSI), Special protection Areas (SPA), Sites of Nature Conservation Importance (SNCI), Sensitive Landscape Areas (SLA), Local Nature Reserves (LNR), designated moorland, Ramsar Site and Teesmouth National Nature Reserve.	The PCC contains the Redcar Blast Furnace which is a relatively rare, well preserved example of its type that is a non-designated heritage asset. The Connection Corridors contain no conservation interest.
Recreation value	Taken as a whole, the landscape of the Study Area has high levels of recreational value, which includes the use of long distance routes, PRow, seafront, beaches, parks and gardens and golf courses.	The PCC has no public access. The Connection Corridors encompasses areas of recreational value including Coatham Sands which is part of the England Coast Path Coastal Margin and Cleveland Golf Club. The Connection

Factor	Study Area	The proposed Site
		Corridors also includes long distance routes and PRowS.
Perceptual aspects	The Study Area contains a relatively high number of areas which can be regarded as tranquil and remote.	No specific, relevant perceptual aspects which define landscape character have been identified. Connection Corridors contain areas regarded as tranquil in the north within Coatham Sands, however heavily influenced by the industrial developments located immediately adjacent.
Overall landscape value	Medium The Study Area includes a number of areas designated locally for their landscape character and/or perceptual qualities/tranquillity, whilst being heavily influenced by industrial developments, residential areas and transport corridors.	Very low The PCC is an area of industrial land with no important landscape features. Low The Connection Corridors are heavily influenced by existing industrial developments and transport corridors.

Existing Visual Baseline

ZTV Analysis

- 17.4.44 In order to identify locations with potential to have views of the Proposed Development, two ZTVs has been produced as described below. These identify those areas which have potential for views of the Proposed Development and to what extent it is likely to be visible. The ZTVs are illustrated in Figure 17-4: Zone of Theoretical Visibility and Potential Viewpoint Locations (PEI Report, Volume II) and Figure 17-7 Zone of Theoretical Visibility Proposed Above Ground Electrical Connection Corridor.
- 17.4.45 A ZTV has been prepared for the Proposed Development based upon the tallest structures, i.e., the stacks, at up to 120 m above ground level (up to approximately 11 m Above Ordnance Datum (AOD)), providing the theoretical visibility of the Proposed Development.
- 17.4.46 A second ZTV has been prepared based on the tallest potential structures within the Electrical Connection Corridor, i.e. pylons, at up to 60 m AOD.
- 17.4.47 The ZTV has been generated by analysis of a 3D digital terrain model (DTM) of the surrounding terrain and the Proposed Development. The ZTV has been generated using Ordnance Survey Terrain 5 digital terrain data which does not take into account the screening effects of vegetation, buildings or other structures. The ZTV is based upon a grid of points at 50 m apart within the site footprint at a height of 120 m for the PCC and 60 m for pylons within the Electrical Connection Corridor with an observer eye height of 1.6 m.
- 17.4.48 Visibility within the Study Area is varied. Due to the low-lying land along the coast and lack of intervening vegetation there are widespread open views in the north-west and east. Visibility in the south and south-west is restricted due to the extent of built form and topography.



Dynamic Views

17.4.49 Users of the main transport routes and long-distance trails may gain dynamic views towards the PCC to varying degrees dependant on intervening structures, screening vegetation, elevation and direction of travel.

17.4.50 Users of the Trans Pennine and Northern train lines within the Study Area will gain transient, dynamic views within the Study Area and of the PCC. Views will include a landscape containing industrial developments, overhead power lines, highway infrastructure and wind turbines.

Visual Receptors and Viewpoints

17.4.51 Through consultation with the relevant stakeholders, listed in Table 17-1, a total of 15 viewpoints have been chosen to represent the typical range of views of the Site from within the Study Area, as listed in Table 17-3: Representative Viewpoints and illustrated on Figure 17-5: Representative Viewpoint Locations (PEI Report, Volume II).

17.4.52 The full list of all viewpoints originally considered can be found in Appendix 17C: Potential Viewpoints (PEI Report, Volume III) and illustrated on Figure 17-3: Zone of Theoretical Visibility and Potential Viewpoint Locations Plan (PEI Report, Volume II).

Table 17-3: Representative Viewpoints

Viewpoint ID	Name & Location	Receptor Type	Elevation m (AOD)	Grid Reference	View
1	Albion Terrace, Hartlepool	Residential and PRow users	11	452933, 533502	<p>Long distance panoramic view across the North Sea taken from the long-distance England Coast Path along Albion Terrace. Industrial buildings including flares, plumes, stacks associated with the industrial area of Teesside are visible as background elements across the majority of the view. The turbines associated with Teesside off-shore windfarm are visible on the skyline along with high ground, including Eston Moor. Representative of long range views from the north-west.</p> <p>Value of view: View likely to be locally valued with medium visitor numbers and medium level of detractors in the distance. Medium</p>
2	The Cliff, Seaton Carew	Residential and PRow users	10	452473, 530118	<p>Wide, open, view taken from the junction of The Cliff A178 and The Green within Seaton Carew Conservation Area along the long-distance England Cost Path. The foreground of the view is dominated by the A178 carriageway and promenade. The foreshore of Seaton Sands and the North Sea are visible in the midground and the background is dominated by industrial complexes including flares and stacks associated with Teesside. Turbines associated with Teesside off-shore wind farm are visible in the wider view. High ground, including Eston Moor, forms the backdrop of the view. Representative of views from the north-west.</p> <p>Value of view: Locally valued view from historic asset, with medium visitor numbers and medium level of detractors in the distance. Medium</p>
3	Teesmouth National Nature Reserve, England Coast Path	Recreational	4	452488, 527854	<p>Open view across undulating pasture taken from the England Coast Path, off Tees Road. Pasture associated with the Teesside Nature Reserve is visible in the foreground. Overhead lines and a telecommunications mast are visible in the mid ground. Industrial structures including those on the former steelworks site and off-shore wind turbines are visible in the background of the view, against the skyline. Sand dunes associated with Teesmouth Nature Reserve partially restrict longer distance views. Representative of medium range views from the west.</p> <p>Value of view: Locally valued view with medium visitor numbers and medium level of detractors in the distance. Medium</p>

Viewpoint ID	Name & Location	Receptor Type	Elevation m (AOD)	Grid Reference	View
4	North Gare Sands	Recreational	0	453752, 527277	<p>Open view across North Gare Sands across the Tees Mouth towards the former steelworks site. Infrastructure associated with the former steelworks site, including the Redcar Blast Furnace and cranes associated with Redcar bulk terminal. The off-shore wind turbines are visible in the wider view. High ground including Eston Moor forms the backdrop of the view. Representative of short range views for recreational users of the beach and Tees Mouth from the west.</p> <p>Value of view: Locally valued view with medium visitor numbers and a high level of detractors in the distance. Medium</p>
5	South Gare Breakwater	Recreational	0	455638, 527828	<p>Expansive open, view across the estuary and North Sea from the South Gare Breakwater. Mudflats and access road are visible in the midground. Infrastructure associated with the former steelworks site including the Redcar Blast Furnace are visible against the sky in the background of the view. Representative of short range views from the north.</p> <p>Value of view: Locally valued view with medium visitor numbers and a high level of detractors in the distance. Medium</p>
6	Cowpen Bewley Country Park	Recreational	20	448591, 525700	<p>Long distance, elevated, open view from viewpoint within Cowpen Bewley Country Park. Grassland and tree planting belts form the foreground of the view. Mudflats, areas of standing water and localised areas of tree planting form the mid ground. The River Tees is visible towards the background of the view. The background is dominated by industrial structures associated with Teesside, including the former steelworks site which are visible against the skyline. High ground including Eston Moor is visible as is the backdrop of the view to the right. Representative of long distance views from the west.</p> <p>Value of view: Locally valued view with medium visitor numbers and a high level of detractors in the distance. Medium</p>

Viewpoint ID	Name & Location	Receptor Type	Elevation m (AOD)	Grid Reference	View
7	England Coast Path, Warrenby	Recreational	3	458610, 525421	<p>Open view from the England Coast Path adjacent to the edge of Redcar Beach Caravan Park. The foreground and mid ground consist of the Cleveland Golf Links and sand dunes, which frame the view preventing views towards the North Sea. Industrial units including Redcar Auto and Performance Centre are visible in the mid ground. The steel works including Redcar Blast Furnace is a prominent feature in the background in the right of the view. Representative of short distance views from the east.</p> <p>Value of view: Local, commonplace view and medium level of detractors in the distance. Medium</p>
8	Redcar seafront	Recreational and residential	11	459886, 525465	<p>Open, partially elevated view along the waterfront at Redcar, adjacent to the bandstand on Newcomen Terrace. The foreground is dominated by the promenade, Coatham Sands beach, and the flood alleviation wall. Coatham boating lake and built structures are visible in the mid ground. Residential areas of Coatham are visible in the middle and background to the left of the view. Industrial structures at Teesside, including the former steelworks site are visible in the background, breaking the skyline. Turbines associated with the off-shore wind farm are visible to the right of the view. Representative of midrange views from the east.</p> <p>Value of view: Locally valued view with medium visitor numbers and high level of detractors in the background. Medium.</p>
9	Coatham Marsh Nature Reserve	Recreational	4	459168, 524686	<p>Low level, partially channelled, view from within Coatham Marsh, off Kirkleatham Lane. Water bodies, grassland and scrub within the nature reserve forms the foreground and middle ground of the view. Residential housing at Coatham forms the backdrop of the view to the right. Industrial structures associated with the former steelworks site and visible on the horizon, viewed against the skyline. Representative of short range views from the east.</p> <p>Value of view: Local view with no recognised quality containing a small number of detractors. Low.</p>

Viewpoint ID	Name & Location	Receptor Type	Elevation m (AOD)	Grid Reference	View
10	Eston Nab	Recreational	238	456899, 518348	Elevated, expansive, view from Eston Nab across Teesside. The foreground contains grassland associated with the Nab. The mid ground is dominated by industrial complexes and structures including stacks, chimneys and plumes. The North Sea and off-shore wind turbines are visible in the background of the view to the right. The shoreline of Hartlepool is just visible in the background to the left of the view. Representative of long range, elevated views from the south. Value of view: Locally valued view with medium visitor numbers. The view relates to the experience of the Eston Nab heritage asset. High.
11	Longbeck Lane	Residential, road users	48	461856, 521012	Elevated, open, long distance view from Longbeck Lane. Arable farmland dominates the fore and mid ground. Industrial structures including stacks and chimneys are visible forming the background of the left side of the view. The North Sea and off-shore wind turbines, breaking the skyline, are visible to the right of the view. Representative of long distance views from the south-east. Value of view: Well composed view with a high number of detractors in the background. Low.
12	Carpark off A1085 Coast Road, Marske by the Sea	Recreational	13	463156, 523188	Wide, open, partially elevated view from the carpark off A1085 Coast Road. The foreground and mid ground is dominated by dunes, grassland, Marske Sands beach and the North Sea. Residential properties at the edge of Redcar are visible in the distance. Tall industrial structures, including those on the former steelworks site are visible against the skyline. Off-shore wind turbines are perceptible to the right of the view in the distance. Representation of long range views from the east. Value of view: Locally valued view with medium visitor numbers and medium level of detractors in the distance. Medium.

Viewpoint ID	Name & Location	Receptor Type	Elevation m (AOD)	Grid Reference	View
13	Kirkleatham Lane, edge of Kirkleatham	Road users	21	459164, 521539	<p>Framed view taken from the edge of Kirkleatham Conservation Area. Kirkleatham Lane is visible in the foreground and mid ground with mature trees and hedgerow lining the road corridor. Vegetation forms the background of the view along the A1042, which restricts views beyond. The high ground at Eston Moor forms the backdrop of the view to the left. Representative of close range views towards the connection corridors to the south-east.</p> <p>Value of view: A view unlikely to be visited specifically to experience the view, although at the edge of the Kirkleatham Conservation Area. Medium</p>
14	Grange Estate, Lazenby	Residential	30	457294, 519998	<p>Channelled, narrow, view from Grange Estate in a northerly direction. The foreground is dominated by residential gardens. The middle and background consists of grassed earth landform and dense shelter belt tree planting. Glimpsed views of tall industrial structures are visible on the skyline beyond the tree planting. Representative of close range views towards the connection corridors to the south.</p> <p>Value of view: View with no recognised quality with detractors in the background. Low.</p>
15	Birchington Avenue, Grangetown	Residential	14	455495, 520024	<p>Open view along Birchington Avenue in an easterly direction. The foreground contains the asphalt carriageway and grassed roundabout. Trees and street lighting lining the carriageway are evident in the foreground and grassed landform is visible immediately beyond. The mid ground consists of open playing fields and residential properties are visible to the right of the view. A dense woodland block forms the background. A plume and pylons are visible above the vegetation. Eston Moor is visible to the right of the view. Representative of close-range views towards the connection corridors to the west.</p> <p>Value of view: Well composed, common place view. Low.</p>

Summary of Visual Baseline

17.4.53 The Study Area is characterised by industry, including the existing Teesside, Seal Sands and Hartlepool Power Stations, petrochemical and steel works. These large-scale developments are key characteristics influencing the landscape character. Due to the low topography around Middlesbrough and the Tees Valley, views of the existing structures are common place. The elevated land to the south of the Study Area allows for wide ranging views, but this landform along with extensive tree cover restricts views of the industrial structures from further afield.

17.4.54 The extent of views available to receptors range from close proximity to long distance. A number of receptors are located at the edge of coastal towns, along roads and along PRowS where the landform is low lying. The rising landform in the south-east and localised areas of high land in the west allow for elevated long-distance views towards the Site.

Future Baseline

17.4.55 As part of the future baseline it is predicted that the existing structures on the former steelworks site will be demolished. The Redcar Blast Furnace will be removed and placed in another location. The timescales for demolition are to be determined, but demolition may be undertaken prior to the anticipated construction period of the Proposed Development of 2022.

17.4.56 The future baseline conditions against which the construction (2022-2026), opening (2026), operation (2041) and decommissioning (2051) scenarios for the landscape and visual impact assessment are assessed comprises a 'modified' baseline where the structures on the PCC are no longer present. A number of large-scale structures are assumed to still be present within close proximity of the Site.

17.4.57 The wider Study Area would continue to be influenced by a number of large-scale industrial buildings complexes and infrastructure corridors in the future baseline scenario.

17.4.58 In the absence of the Proposed Development it is considered that the former steelworks site may be used for other large-scale industrial developments, but the nature of these is undetermined.

17.5 Development Design and Impact Avoidance

17.5.1 The following impact avoidance measures will either be incorporated into the design or are standard construction or operational requirements. These measures have therefore been taken into account during the impact assessment process described in this chapter:

- operations within sections of the Electrical Connection Corridor to the south and east of the Wilton International complex will utilise underground construction techniques to avoid the removal of vegetation required for open cut methods of working and to minimise impacts on residential receptors;



- suitable materials will be used, where possible, in the construction of structures to reduce reflections and to assist with breaking up the massing of the buildings and structures;
- the selection of finishes for the buildings and other infrastructure will be informed by the finishes of the adjacent developments in order to reduce the visual impact of the Proposed Development; and
- lighting required during the construction and operation stages of the Proposed Development will be designed to reduce unnecessary light spill outside of the Site boundary.

17.6 Likely Impacts and Effects

Landscape

17.6.1 The potential landscape impacts of the Proposed Development primarily relate to the visibility of proposed structures (temporary and permanent), including how this affects the perceptual qualities and tranquillity of a character area. In the case of the construction of the Proposed Development this will relate to the following:

- movement of plant and heavy goods vehicles, both within the Proposed Development and in the surrounding area;
- temporary stockpiling of storage of materials on site;
- establishment of site compounds resulting in temporary structures to serve the workforce;
- crane activity to assist high level construction works on the PCC;
- building construction including new stacks on the PCC; and
- external lighting to illuminate site operations after dark on the PCC.

17.6.2 In the case of the operational phase of the Proposed Development this will relate to the following:

- introduction of permanent large-scale structures including the buildings within the PCC (including stacks and the HP Compressor Station);
- introduction of an AGI for the Natural Gas Connection in Seal Sands; and
- introduction of permanent CO₂ Gathering Network pipelines running along existing pipe racking.

Specific Aesthetic or Perceptual Aspects

17.6.3 Large-scale industry is a well-established land-use within the Study Area and within the landscape immediately adjacent to the Site. Although relatively visible within the more remote areas of the Study Area, it is anticipated that the presence of the Proposed Development will not affect the aesthetic and perceptual qualities of the local landscape.

17.6.4 During construction there would be changes in the aesthetic and perceptual qualities through the movement of plant within close proximity of the Site and



the introduction of new large-scale structures at various stages of development within the PCC. At operation, the aesthetic and perceptual qualities would remain as present with large-scale static structures characteristic of the wider landscape.

Assessment of Landscape Effects

- 17.6.5 The proposed PCC is situated on the former SSI steelworks site where land-use in the immediate vicinity includes numerous large-scale industrial buildings and structures. The main feature of change during the construction would be the introduction of tall cranes and by opening there would be new large-scale structures within the PCC.
- 17.6.6 During construction there would be temporary disturbance to South Gare, Coatham Dunes, Coatham Sands, views from the North Sea and Salthome Nature Reserve as a result of works on the proposed Natural Gas Connection Corridor, CO₂ Gathering Network, CO₂ Export Pipeline, Water Abstraction Corridor and Water Discharge Corridor.
- 17.6.7 The main potential for effects on landscape character relates to the intervisibility between the Proposed Development and the LCAs/LCTs/ LCTrs. Given that the Proposed Development is located within an area characterised by large-scale industrial development, it is considered that it is likely to be congruous with its context and therefore there is a low potential for the landscape character of the surrounding areas to be affected.
- 17.6.8 Due to the existing industrial character of the Site and the setting of the Proposed Development, it is anticipated that there is low likelihood that the effects will be sufficient to result in an inherent change to the existing landscape character at a local scale and negligible at a regional or national scale. Overall the influence of the Proposed Development will be limited to the localised landscape immediately adjacent to the PCC and all Connection Corridors.
- 17.6.9 It is predicted that the following landscape receptors listed below have no potential to receive significant adverse landscape effects as a result of the Proposed Development and as such they are excluded from further assessment. This is due to the scale of, and in relationship to, the size and nature of the Proposed Development.
- NCA 15: Durham Magnesian Limestone Plateau due to scale and distance to Site;
 - NCA 25: North York Moors and Cleveland Hills due to distance and existing influence on the NCA;
 - Guisborough Lowland LCTr due to long distance and lack of intervisibility to the Site;
 - East Cleveland Plateau LCTr due to very small proportion of the LCTr within the Study Area and long distance to Site;
 - Undulating Farmland LCT due to long distance and limited intervisibility to the Site; and

- Thorpe and Billingham Beck LCA due to long distance and limited intervisibility to the Site.

17.6.10 Table 17-4 provides an assessment of the sensitivity of each landscape receptor whilst Tables 17-5 to 17-6 provide an assessment of the anticipated magnitude of landscape impacts and the classification of effects on each landscape receptor at construction, opening and decommissioning stages.

17.6.11 A full description of the criteria used to assess the above can be found in Appendix 17A: Landscape Character (PEI Report, Volume III).

Table 17-4: Landscape Sensitivity Assessment

Landscape Receptor	Sensitivity assessment		Sensitivity
	Value	Susceptibility	
Natural England National Character Areas			
NCA 23 Tees Lowland	Medium	The broad open plain is influenced heavily by large areas of conurbation and industrial development around the Tees Estuary, within the east of the NCA. Susceptibility to change arising from the Proposed Development is therefore considered to be Low.	Medium
Marine Character Areas			
MCA 22 Tyne, Tees and Wear Estuaries and Coastal Waters	Medium	The MCA is relatively industrialised in areas with views of an extensively developed lowland coast. Areas of naturalised coastline and present. Susceptibility to change arising from the Proposed Development is therefore considered to be Low.	Medium
Redcar & Cleveland Landscape Character Assessment (2006)			
Eston Hills LCTr	High	The wooded pattern and dominant landform provide a strong strength of character. There are medium levels of tranquillity and rural qualities including large areas of woodland which create intermittent views of large-scale industrial structures. Susceptibility to change arising from the Proposed Development is therefore considered to be Medium.	High
Redcar Flats LCTr	Medium	The low-lying, relatively flat, sparsely vegetated landscape has minimal variation of landscape pattern. The close proximity to industrial development has a strong influence on the landscape character. Parts of the LCTr are designated for their ecological value. Therefore, it is considered the LCTr is robust and susceptibility to change arising from the Proposed Development is Low.	Medium
Stockton and Tees Landscape Character Assessment (2011)			
East Billingham to Teessmouth LCA	Medium	The open space within industrial areas contain significant wildlife value with a number of ecological designations. The open low lying, sparsely vegetated landform enables widespread views of Teesside's industrial complex across the LCA. It is considered the LCA is robust and susceptibility to change arising from the Proposed Development is Low.	Medium

Landscape Receptor	Sensitivity assessment		Sensitivity
	Value	Susceptibility	
Thorpe and Billingham Beck LCA	Medium	As a result of the well vegetated 'green wedge' which separates Stockton and Billingham there are limited widespread views. Lines of transmission towers and road network provide existing visual detractors within the LCA. Susceptibility to change arising from the Proposed Development is therefore considered to be Medium.	Medium
Hartlepool Landscape Assessment (2000)			
Coastal Fringe LCT	High	As a result of the high levels of tranquillity, influence of detractors in the wider landscape, susceptibility to change arising from the Proposed Development is considered to be Medium.	High
Estuarine LCT	Medium	The LCT is relatively tranquil although the close proximity of industrial infrastructure as detractors in the landscape has a strong influence. Susceptibility to change arising from the Proposed Development is considered to be Low.	Medium
Rural Fringe LCT	Medium	The close proximity to the urban environment influences the rural character of the LCT. Susceptibility to change arising from the Proposed Development is considered to be Medium.	Medium

Visual Amenity

17.6.12 Potential visual effects of the Proposed Development in comparison with the future baseline visual context are considered in Table 17-8 by reference to representative viewpoints. The assessments contained within Table 17-8 should be read in conjunction with Figures 17-8 to 17-22 (PEI Report, Volume II) which illustrate the baseline situation at each viewpoint.

17.6.13 A series of photowires have been prepared (Figures 17-28 to 17-30 which illustrate the likely visibility of the Proposed Development at four of the assessed viewpoints. The photowires represent the heights of key elements in the proposed development as set out in the parameter table Table 4-1 Chapter 4: Proposed Development (PEI Report, Volume I).

Table 17-5: Assessment of Landscape Effects – Construction

Landscape type	Sensitivity of receptor	Description of impact	Predicted magnitude of impact	Classification of effect
NCA 23: Tees Lowland	Medium	Construction activities associated with the Proposed Development will directly impact the NCA. Construction activities will be viewed in context with other large-scale industrial developments. Due to presence of large-scale industrial development which lies within this NCA and the type of construction activities being undertaken, it is considered that the Proposed Development will have very limited potential to affect the landscape character and perception of the NCA in the short term. Impacts will be over a small geographical extent and reversible.	Very low	Negligible adverse (not significant)
MCA 22 Tyne, Tees and Wear Estuaries and Coastal Waters	Medium	The Proposed Development lies within this MCA and will introduce views of construction activity into it. Due to existing views containing large-scale industrial development, it is considered that the Proposed Development will have very limited potential to affect the landscape character, perception and tranquillity of the MCA in the short term. Impacts will be over a small geographical extent and reversible.	Very low	Negligible adverse (not significant)
Eston Hills LCTr	High	The Proposed Development lies outside of this LCTr but will introduce construction activity within views from it. Due to expansive views containing large-scale industrial complexes and transport infrastructure, it is considered that the construction of the Proposed Development will result in limited perceptible change to the landscape character and tranquillity of the LCTr in the short term that will be reversible.	Very low	Minor adverse (not significant)
Redcar Flats LCTr	Medium	Construction activities associated with the Proposed Development will directly impact the LCTr. The majority of construction activities will be viewed adjacent to the LCTr and will be viewed in context with other large-scale industrial developments. The Proposed Development would result in the introduction of uncharacteristic construction activity that would result in a direct, intensive change over a limited area and small indirect change over a large area. The introduction of construction activities within and immediately adjacent to the LCTr will affect the landscape character, perception and tranquillity of a medium area of this LCTr in the short term. Impacts will be over a medium geographical extent and reversible.	Medium	Moderate adverse (Significant)

Landscape type	Sensitivity of receptor	Description of impact	Predicted magnitude of impact	Classification of effect
East Billingham to Teesmouth LCA	Medium	The CO ₂ Gathering Network and Natural Gas Connection Corridor lie within this LCA and views of construction activity will be visible from within it. Due to presence of large-scale industrial development which lies within this LCA, and the type of construction activities being undertaken within the LCA, it is considered that the Proposed Development will have limited potential to affect the landscape character, perception and tranquillity of the LCA in the short term. Impacts will be over a medium geographical extent and reversible.	Low	Minor adverse (not significant)
Thorpe and Billingham Beck LCA	Medium	The Proposed Development lies outside of this LCA and will introduce very limited views of construction activity into it. Due to the existing influence of large-scale industrial development within the adjacent LCA, it is considered that the Proposed Development will have little perceptible change on the character and tranquillity of the LCA in the short term that will be reversible.	Very low	Negligible adverse (not significant)
Coastal Fringe LCT	High	The Proposed Development lies outside of this LCT but will introduce views of construction activity into it as a result of the extensive views available from the LCT. Due to existing views containing large-scale industrial development, it is considered that the Proposed Development will have limited potential to affect the landscape character and perception of the LCT in the short term that will be reversible.	Low	Moderate adverse (Significant)
Estuarine LCT	Medium	The Proposed Development lies outside of this LCT but will introduce views of construction activity into it as a result of the extensive views available from the flat, scarcely vegetated LCT. Due to existing views of large-scale industrial development which lie within the adjacent landscape character area, it is considered that the Proposed Development will have limited potential to affect the landscape character, perception and tranquillity of the LCT in the short term that will be reversible.	Low	Minor adverse (not significant)
Rural Fringe LCT	Medium	The Proposed Development lies outside of this LCT but will introduce very limited views of construction activity into it as a result of the surrounding built form. Due to the general lack of views and existing intermittent views of large-scale industrial development, it is considered that the Proposed Development will have little perceptible change on the landscape character and tranquillity of the LCT in the short term that will be reversible.	Very Low	Negligible adverse (not significant)

Table 17-6: Assessment of Landscape Effects – Opening (Year 1)

Landscape type	Sensitivity of receptor	Description of impact	Predicted magnitude of impact	Classification of effect
NCA 23: Tees Lowland	Medium	The Proposed Development will introduce views of the PCC within the NCA. The existing influence of other large-scale industrial developments and road and rail infrastructure within the NCA, will result in a small change to the character without altering the overall characteristics of the landscape. The impacts would be over a small area, long term and reversible.	Low	Minor adverse (not significant)
MCA 22 Tyne, Tees and Wear Estuaries and Coastal Waters	Medium	The Proposed Development lies outside of this MCA but will introduce views of the PCC due to the open views from the coastal waters and estuary. Due to the influence of large-scale industrial developments on existing views which lie within the adjacent landscape, it is considered that the Proposed Development will have little perceptible change on the landscape character and tranquillity of the MCA. Impacts would be over a small area, long term and reversible.	Very low	Negligible adverse (not significant)
Eston Hills LCTr	High	The Proposed Development lies outside of this LCTr but will introduce views of the PCC within views from it. Due to existing, expansive views of large-scale industrial developments and transport infrastructure which lay within the adjacent landscape, it is assessed that the opening of the Proposed Development will result in limited perceptible change to the landscape character tranquillity of the LCTr in the long term. Impacts would be reversible.	Very low	Minor adverse (not significant)
Redcar Flats LCTr	Medium	The Proposed Development will introduce views of the PCC directly adjacent to the LCTr. The existing influence of other large-scale industrial developments and road and rail infrastructure adjacent to the LCTr, will result in a small change to the character without altering the overall characteristics of the landscape. The impacts would be over a small area, long term and reversible.	Low	Minor adverse (not significant)
East Billingham to Teesmouth LCA	Medium	Part of the proposed CO ₂ Gathering Network and Natural Gas Connection Corridor lies within this LCA and will introduce widespread views of the PCC due to the flat landform and open nature of the LCA. Due to existing views of large-scale industrial development which lie within the LCA and adjacent landscape, it is considered that the Proposed Development will have limited potential to affect the landscape character, perception and tranquillity of the LCA. Impacts would be over a small area, long term and reversible.	Low	Minor adverse (not significant)

Landscape type	Sensitivity of receptor	Description of impact	Predicted magnitude of impact	Classification of effect
Thorpe and Billingham Beck LCA	Medium	The Proposed Development lies outside of this LCA and will introduce very limited views of the PCC into it. Due to existing large-scale industrial development which is visible in glimpsed views from the LCA, it is considered that the Proposed Development will have little perceptible change on the landscape character and tranquillity of the LCA. Impacts would be long term and reversible.	Very low	Negligible adverse (not significant)
Coastal Fringe LCT	High	The Proposed Development lies outside of this LCT but will introduce views of the PCC due to available extensive views from the LCT. Due to existing views containing large-scale industrial development, it is considered that the Proposed Development will have little perceptible change on the landscape character and tranquillity of the LCT. Impacts would be long term and reversible.	Very low	Minor adverse (not significant)
Estuarine LCT	Medium	The Proposed Development lies outside of this LCT but will introduce views of the PCC due to the open views with limited intervening vegetation. Due to the influence of large-scale industrial developments on existing views which lie within the adjacent landscape, it is considered that the Proposed Development will have little perceptible change on the landscape character and tranquillity of the LCT. Impacts would be long term and reversible.	Very low	Negligible adverse (not significant)
Rural Fringe LCT	Medium	The Proposed Development lies outside of this LCT but will introduce limited views of the PCC due the surrounding built form. Due to the general lack of views and existing intermittent views of large-scale industrial developments it is considered that the Proposed Development will have little perceptible change on the landscape character and tranquillity of the LCT. Impacts would be long term and reversible.	Very Low	Negligible adverse (not significant)

Table 17-7: Assessment of landscape effects – Operation (Year 15)

Landscape type	Sensitivity of receptor	Description of impact	Predicted magnitude of impact	Classification of effect
NCA 23: Tees Lowland	Medium	The impacts during operation are anticipated to be similar to the opening assessment scenario. The operation of the Proposed Development is assessed to result in a small change to the character of the NCA, without altering the overall characteristics of the landscape. The impacts would be over a small area, long term and reversible.	Very low	Negligible adverse (not significant)
MCA 22 Tyne, Tees and Wear Estuaries and Coastal Waters	Medium	The impacts during operation are anticipated to be similar to the opening assessment scenario. The operation of the Proposed Development is assessed to have little perceptible change on the landscape character and tranquillity of the MCA. Impacts would be over a small area, long term and reversible.	Very low	Negligible adverse (not significant)
Eston Hills LCTr	High	The impacts during operation are anticipated to be similar to the opening assessment scenario. The operation of the Proposed Development is assessed to result in limited perceptible change to the landscape character tranquillity of the LCTr. Impacts would be long term and reversible.	Very low	Minor adverse (not significant)
Redcar Flats LCTr	Medium	The impacts during operation are anticipated to be similar to the opening assessment scenario. The operation of the Proposed Development is assessed to result in a small change to the character without altering the overall characteristics of the landscape. The impacts would be over a small area, long term and reversible.	Low	Minor adverse (not significant)
East Billingham to Teesmouth LCA	Medium	The impacts during operation are anticipated to be similar to the opening assessment scenario. The operation of the Proposed Development is assessed to have limited potential to affect the landscape character, perception and tranquillity of the LCA. Impacts would be over a small area, long term and reversible.	Low	Minor adverse (not significant)
Thorpe and Billingham Beck LCA	Medium	The impacts during operation are anticipated to be similar to the opening assessment scenario. The operation of the Proposed Development will have little perceptible change on the landscape character and tranquillity of the LCA. Impacts would be long term and reversible.	Very low	Negligible adverse (not significant)

Landscape type	Sensitivity of receptor	Description of impact	Predicted magnitude of impact	Classification of effect
Coastal Fringe LCT	High	The impacts during operation are anticipated to be similar to the opening assessment scenario. The operation of the Proposed Development will have little perceptible change on the landscape character and tranquillity of the LCT. Impacts would be long term and reversible.	Very low	Minor adverse (not significant)
Estuarine LCT	Medium	The impacts during operation are anticipated to be similar to the opening assessment scenario. The operation of the Proposed Development will have little perceptible change on the landscape character and tranquillity of the LCT. Impacts would be long term reversible.	Very low	Negligible adverse (not significant)
Rural Fringe LCT	Medium	The impacts during operation are anticipated to be similar to the opening assessment scenario. The operation of the Proposed Development will have little perceptible change on the landscape character and tranquillity of the LCT. Impacts would be long term and reversible.	Very Low	Negligible adverse (not significant)

Table 17-8: Viewpoint Assessment

Viewpoint 1: Albion Terrace, Hartlepool

Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from PCC (km)	Direction of view
452933, 533502	Residential and Recreational Users	11	8.6	South East
Visual susceptibility to change		Value of view		Sensitivity of receptor
View forms primary focus from residential properties and users of the long-distance trail at this location. Therefore, susceptibility is considered to be high.		Medium		High for residential and PRow users.
Size/ scale, duration and reversibility of impact at construction				
Long distance views towards the PCC with construction activity visible at the end of the headland. Construction activities will be visible, although viewed from a long distance of over 8 km. The operations will be viewed as an extension of the Teesside industrial port. The increase in cranes and construction activity will be noticeable but not alter the overall balance of features and viewed in the context of an area containing a high number of large-scale industrial structures. The availability of alternative views, long distance and the presence of other detracting features in the landscape reduce the impact that Proposed Development has on visual amenity. The impact is assessed to be very low, short term and reversible.				
Magnitude of impact at construction				Very low
Significance of effect at construction		Residential and PRow users	Negligible adverse (not significant)	
Size/ scale, duration and reversibility of impact at opening				
The operational PCC will be visible to the left of the view, with the structures, stacks and associated plumes appearing against the high ground in the distance. The structures will be visible, viewed within a context of existing large-scale structures as part of the wider view. The Proposed Development will be barely noticeable, but not overall alter the context of the view. The impact is assessed to be very low, long term and reversible.				
Magnitude of impact at opening				Very low
Significance of effect at opening		Residential and Recreational users	Negligible adverse (not significant)	
Size/ scale, duration and reversibility of impact at operation				
Maturing replacement planting will not be visible from this viewpoint. Therefore, there will be no change to the impacts assessed at opening. The Proposed Development will continue to be barely noticeable and not alter the overall context of the view. The impact is assessed to be very low, long term and reversible.				
Magnitude of impact at operation				Very low
Significance of effect at operation		Residential and Recreational users	Negligible adverse (not significant)	

Viewpoint 2: The Cliff, Seaton Carew

Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from PCC (km)	Direction of view
452473, 530118	Residential and recreational users	10	6.2	South East

Visual susceptibility to change	Value of view	Sensitivity of receptor
View forms primary focus from residential properties, conservation area and users of the long-distance trail at this location. Therefore, susceptibility is considered to be high.	Medium	High for residential and PRow users.

Size/ scale, duration and reversibility of impact at construction

Long distance views towards the PCC with construction activity visible in the centre of the view . Construction activities relating to the PCC will be visible, set amongst a number of existing large-scale industrial structures visible in the wider view. The movement of vehicles and low level operations may not be perceptible at this distance. The presence of cranes and construction activity will be noticeable but not alter the overall balance of features. The availability of alternative views, long distance and the presence of other detracting features in the landscape reduces the impact on visual amenity. The impact is assessed to be low, short term and reversible.

Magnitude of impact at construction		Low
Significance of effect at construction	Residential and recreational users	Minor adverse (not significant)

Size/ scale, duration and reversibility of impact at opening

Long distance view towards the operational PCC.. The structures, stacks and associated plumes will appear against the high ground, with the tips of the stacks breaking the skyline. The structures will be clearly visible, although viewed within a context of existing large-scale structures within the wider view. The Proposed Development will be barely noticeable, but not overall alter the context of the view. The impact is assessed to be very low, long term and reversible.

Magnitude of impact at opening		Very low
Significance of effect at opening	Residential and recreational users	Negligible adverse (not significant)

Size/ scale, duration and reversibility of impact at operation

Maturing replacement planting will not be visible from this viewpoint. Therefore, there will be no change to the impacts assessed at opening. The Proposed Development will be barely noticeable, but not overall alter the context of the view. The impact is assessed to be very low, long term and reversible.

Magnitude of impact at operation		Very low
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Viewpoint 4: North Gare Sands

Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from PCC (km)	Direction of view
453752, 527277	Recreational	0	3.5	East
Visual susceptibility to change		Value of view		Sensitivity of receptor
View forms primary focus for users of the beach at this location. Therefore, susceptibility is considered to be high.		Medium		High for recreational users.
Size/ scale, duration and reversibility of impact at construction				
Medium range view towards construction activities on the PCC including CO ₂ Export Pipeline and Abstraction and Discharge Connection Corridors. The majority of construction activities will be clearly visible due to the lack of intervening built form. Views of high level construction activities on the PCC, including cranes will be seen in the context of existing large-scale industrial structures, visible against the sky within the wider view. The addition of construction operations associated with the Proposed Development will be readily apparent but will not alter the overall balance of features in the view. As a result of the close proximity and scale of operations the impact is assessed to be medium, short term and reversible.				
Magnitude of impact at construction				Medium
Significance of effect at construction		Recreational	Moderate adverse (significant)	
Size/ scale, duration and reversibility of impact at opening				
Medium range view towards the operational PCC.. The structures, stacks and associated plumes will appear against the skyline, increasing their visibility. The structures will be viewed within a context of existing large-scale structures. The Proposed Development will be noticeable, but not overall alter the context of the view. The impact is assessed to be low, long term and reversible.				
Magnitude of impact at opening				Low
Significance of effect at opening		Recreational	Minor adverse (not significant)	
Size/ scale, duration and reversibility of impact at operation				
Maturing replacement planting will not be visible from this viewpoint. Therefore, there will be no change to the impacts assessed at opening. The Proposed Development will be noticeable, but not overall alter the context of the view. The impact is assessed to be low, long term and reversible.				
Magnitude of impact at operation				Low
Significance of effect at operation		Recreational	Minor adverse (not significant)	

Viewpoint 5- South Gare Breakwater

Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from PCC (km)	Direction of view
455638, 527828	Recreational	0	2.4	South

Visual susceptibility to change	Value of view	Sensitivity of receptor
View forms primary focus for recreational users of the beach and Tees Mouth at this location. Therefore, susceptibility is considered to be high	Medium	High for recreational users.

Size/ scale, duration and reversibility of impact at construction

Medium range view of construction operations, visible to the left of the view. Low level construction operations will be largely screened behind localised sand dunes and low level vegetation. Construction operations will be seen in the context of existing large-scale structures within the wider view. The introduction of cranes and the gradual increase in structures will be readily apparent and characteristic of the existing view. The overall balance will be changed by the introduction of large-scale construction operations which will be readily apparent in the view. The impact is assessed to be medium, short term and reversible.

Magnitude of impact at construction		Medium
Significance of effect at construction	Recreational	Moderate adverse (significant)

Size/ scale, duration and reversibility of impact at opening

Medium distance view towards the operational PCC, visible towards the edge of the headland. The majority of the high level structures, stacks and associated plumes will appear against the skyline, increasing their visibility. The operational PCC will be seen in the context of an open, panoramic view, containing a high level of industrial structures including stacks and flares. The Proposed Development will be noticeable, but not overall change the balance of the view. The impact is assessed to be low, long term and reversible.

Magnitude of impact at opening		Low
Significance of effect at opening	Recreational	Minor adverse (not significant)

Size/ scale, duration and reversibility of impact at operation

Maturing replacement planting will not be visible from this viewpoint. Therefore, there will be no change to the impacts assessed at opening. The Proposed Development will be noticeable, but overall not change the balance of the view. The impact is assessed to be low, long term and reversible.

Magnitude of impact at operation		Low
Significance of effect at operation	Recreational	Minor adverse (not significant)

Viewpoint 6- Cowpen Bewley Country Park

Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from PCC (km)	Direction of view
448591, 525700	Recreational	20	8	East

Visual susceptibility to change	Value of view	Sensitivity of receptor
View forms primary focus for recreational users of Cowpen Bewley Country Park at this location. Therefore, susceptibility is considered to be high.	Medium	High for recreational users.

Size/ scale, duration and reversibility of impact at construction

Long distance views towards the PCC with construction activities. Due to lack of intervening vegetation or landform, construction activities including the use of cranes will be visible, although at a long distance and set within a wide 360° panorama containing a high number of existing industrial structures. Construction activities will form a barely noticeable part of the view. The impact is assessed to be very low, short term and reversible.

Magnitude of impact at construction		Very low
Significance of effect at construction	Recreational	Negligible adverse (not significant)

Size/ scale, duration and reversibility of impact at opening

Long distance view towards the operational PCC. The structures including stacks and associated plumes will be viewed against the skyline, marginally increasing their visibility. The presence of additional structures in the view will be barely noticeable and will not alter the overall balance of the view that contains a high number of industrial structures. The impact at opening is assessed to be reduced in comparison with the construction stage, although would remain at very low. Impacts will be long term and reversible.

Magnitude of impact at opening		Very low
Significance of effect at opening	Recreational	Negligible adverse (not significant)

Size/ scale, duration and reversibility of impact at operation (Year 15)

Maturing replacement planting will not be visible from this viewpoint. Therefore, there will be no change to the impacts assessed at opening. The Proposed Development will be barely noticeable and will not alter the overall balance of the view that contains a high number of industrial structures. The impact is assessed to be very low, long term and reversible.

Magnitude of impact at operation		Very low
Significance of effect at operation	Recreational	Negligible adverse (not significant)

Viewpoint 7- England Coast Path, Warrenby

Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from PCC (km)	Direction of view
458610, 525421	Recreational	3	1.2	West

Visual susceptibility to change	Value of view	Sensitivity of receptor
View forms primary focus for users of the long-distance trail and golf course at this location. Therefore, susceptibility is considered to be high.	Medium	High for recreational users.

Size/ scale, duration and reversibility of impact at construction

Medium distance views of construction activities associated with the PCC. Low level activities will be largely screened by intervening sand dunes and localised landforms. Higher level activities will be clearly visible within the middle ground of the view.. The use of high level cranes and the movement of construction activity will be readily apparent and form a noticeable part of the view. The impact is assessed to be medium, short term and reversible.

Magnitude of impact at construction		Medium
Significance of effect at construction	Recreational	Moderate adverse (significant)

Size/ scale, duration and reversibility of impact at opening

Medium distance views of the operational PCC, including stacks and associated plumes will be highly visible from this location. The increase in massing of structures associated with the operational PCC will become the most prominent structure from this location, altering the overall balance of the view. The impact is assessed to be medium, long term and reversible.

Magnitude of impact at opening		Medium
Significance of effect at opening	Recreational	Moderate adverse (significant)

Size/ scale, duration and reversibility of impact at operation

Maturing replacement planting will not be visible from this viewpoint. Therefore, there will be no change to the impacts assessed at opening. The Proposed Development will continue to be the most prominent structure from this location. The impact is assessed to be medium, long term and reversible.

Magnitude of impact at operation		Medium
Significance of effect at operation	Recreational	Moderate adverse (significant)

Viewpoint 8- Redcar seafront

Grid reference	Receptor type	Elevation (mAOD)	Approx. distance from PCC (km)	Direction of view
459886, 525465	Recreational users and residential	11	2.5	West

Visual susceptibility to change	Value of view	Sensitivity of receptor
View forms primary focus for residential receptors and users of the long-distance trail at this location. Therefore, susceptibility is considered to be high.	Medium.	High for residential and recreational users.

Size/ scale, duration and reversibility of impact at construction

Medium distance view towards construction activity associated with the PCC, visible on the headland in the centre of the view. Construction operations, including low level activities will be clearly visible, set within a wide, open view that contains a low number of detractors. The presence of cranes and construction activity will be readily apparent although will not alter the overall balance of features. The impact is assessed to be medium, short term and reversible.

Magnitude of impact at construction		Medium
Significance of effect at construction	Recreational users and residential	Moderate adverse (significant)

Size/ scale, duration and reversibility of impact at opening

At opening the operational PCC will be clearly visible in the view. The stacks and associated plumes will be visible, with the operational PCC forming a prominent structure in the background of the view that will be readily apparent. Due to the presence of existing structures, the Proposed Development will not alter the overall balance of the view. The impact is assessed to be medium, long term and reversible.

Magnitude of impact at opening		Medium
Significance of effect at opening	Recreational users and residential	Moderate adverse (significant)

Size/ scale, duration and reversibility of impact at operation

Maturing replacement planting will not be visible from this viewpoint. Therefore, there will be no change to the impacts assessed at opening. The operational Proposed Development will continue to form a prominent structure in the background of the view that is readily apparent. The impact is assessed to be medium, long term and reversible.

Magnitude of impact at operation		Medium
Significance of effect at operation	Recreational users and residential	Moderate adverse (significant)

Viewpoint 9- Coatham Marsh Nature Reserve

Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from PCC (km)	Direction of view
459168, 524686	Recreational	4	1.9	North-west

Visual susceptibility to change	Value of view	Sensitivity of receptor
View forms secondary view for recreational users of Coatham Marsh Nature Reserve. Therefore, susceptibility is considered to be medium.	Low.	Medium for recreational users.

Size/ scale, duration and reversibility of impact at construction

Medium distance view towards construction activities associated with the PCC where no intervening vegetation is present. Construction activities, including the presence of high level cranes will be visible, set within a wide view that contains a number of existing detractors. Construction activities will form a noticeable part of the view but will not alter the overall balance of the view. The impact is assessed to be low, short term and reversible.

Magnitude of impact at construction		Low
Significance of effect at construction	Recreational	Minor adverse (not significant)

Size/ scale, duration and reversibility of impact at opening

The operational PCC will be clearly visible in the view. The stacks and associated plumes will be visible, increasing the number of large-scale structures within the view. The Proposed Development will be clearly noticeable but will not alter the overall balance of features in the view as a result of the presence of existing built structures. The impact is assessed to be low, long term and reversible.

Magnitude of impact at opening		Low
Significance of effect at opening	Recreational	Minor adverse (not significant)

Size/ scale, duration and reversibility of impact at operation

Maturing replacement planting will not be visible from this viewpoint. Therefore, there will be no change to the impacts assessed at opening. The operational development will be clearly visible in the view. The impact is assessed to be low, long term and reversible.

Magnitude of impact at operation		Low
Significance of effect at operation	Recreational	Minor adverse (not significant)

Viewpoint 10- Eston Nab

Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from PCC (km)	Direction of view
456899, 518348	Recreational	238	6.4	North

Visual susceptibility to change	Value of view	Sensitivity of receptor
View forms primary focus for users of the PRow at this location. Therefore, susceptibility is considered to be high.	High.	High for recreational users.

Size/ scale, duration and reversibility of impact at construction

Long distance, elevated view towards construction activities associated with the PCC and Connections Corridors. Construction operations associated with the PCC will be the most visible activities. The construction of the PCC including high level cranes will be visible, forming a small, barely noticeable feature within the wider view. The impact is assessed to be very low, short term and reversible.

Magnitude of impact at construction	Very low
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Significance of effect at construction	Recreational	Negligible adverse (not significant)
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Size/ scale, duration and reversibility of impact at opening

The operational PCC will be visible within the wider view, although partially screened by intervening structures located in close proximity to the PCC. The stacks and plumes would form the most visible structures of the Proposed Development, viewed against the North Sea, increasing their visibility. As a result of the high number of existing industrial structures, the Proposed Development would be barely noticeable as part of the wider view. The impact is assessed to be very low, long term and reversible.

Magnitude of impact at opening	Very low
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Significance of effect at opening	Recreational	Negligible adverse (not significant)
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Size/ scale, duration and reversibility of impact at operation

Maturing replacement planting will not be visible from this viewpoint. Therefore, there will be no change to the impacts assessed at opening. The Proposed Development would be barely noticeable as part of the wider view. The impact is assessed to be very low, long term and reversible.

Magnitude of impact at operation	Very low
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Significance of effect at operation	Recreational	Negligible adverse (not significant)
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Viewpoint 11- Longbeck Lane

Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from PCC (km)	Direction of view
461856, 521012	Residential	48	6	North-west

Visual susceptibility to change	Value of view	Sensitivity of receptor
View forms primary focus for residents at this location. Therefore, susceptibility is considered to be high.	Low.	Medium for residential users.

Size/ scale, duration and reversibility of impact at construction

Long distance views towards construction activities associated with the PCC. Due to lack of intervening vegetation or landform, construction activities including the use of cranes would be clearly visible, although at a long distance and set within a wide panoramic view containing a high number of existing industrial structures. Construction activities would form a barely noticeable part of the wider view. The impact is assessed to be very low, short term and reversible.

Magnitude of impact at construction		Very low
Significance of effect at construction	Residential	Negligible adverse (not significant)

Size/ scale, duration and reversibility of impact at operation

The operational PCC will be visible to the left of the centre of the view. The stacks and associated plumes will be visible in the background of the view, seen in the context of a high number of industrial structures including stacks and plumes. The Proposed Development would form a barely noticeable feature within the wider view. The impact is assessed to be very low, long term and reversible.

Magnitude of impact at opening		Very low
Significance of effect at opening	Residential	Negligible adverse (not significant)

Size/ scale, duration and reversibility of impact at operation

Maturing replacement planting will not be visible from this viewpoint. Therefore, there will be no change to the impacts assessed at opening. The Proposed Development would form a barely noticeable feature within the wider view and the impact is assessed to be very low, long term and reversible.

Magnitude of impact at operation		Very low
Significance of effect at operation	Residential	Negligible adverse (not significant)

Viewpoint 12- Carpark off A1085 Coast Road, Marske by the Sea

Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from PCC (km)	Direction of view
463156, 523188	Recreational	13	6	North-west

At construction

Visual susceptibility to change	Value of view	Sensitivity of receptor
View forms primary focus for users of Redcar beachfront at this location. Therefore, susceptibility is considered to be high.	Medium.	High for recreational users.

Size/ scale, duration and reversibility of impact at construction

Long distance view towards construction activities associated with the PCC . Low and medium level activities would be largely screened by housing within Redcar. High level activities, including the use of cranes, will be barely noticeable above the intervening structures, viewed against the sky. The impact is assessed to be very low, short term and reversible.

Magnitude of impact at construction		Very low
Significance of effect at construction	Recreational	Negligible adverse (not significant)

Size/ scale, duration and reversibility of impact at opening

The upper sections of the operational PCC at opening including stacks and associated plumes will be visible, viewed above the residential area of Redcar. The high level structures will be barely noticeable, viewed against the sky. Due to the limited industrial structures in the view the impact is assessed to be very low, long term and reversible.

Magnitude of impact at opening		Very low
Significance of effect at opening	Recreational	Negligible adverse (not significant)

Size/ scale, duration and reversibility of impact at operation

Maturing replacement planting will not be visible from this viewpoint. Therefore, there will be no change to the impacts assessed at opening. The upper sections of the operational Proposed Development will be barely noticeable, viewed against the sky. The impact is assessed to be very low, long term and reversible.

Magnitude of impact at operation		Very low
Significance of effect at operation	Recreational	Negligible adverse (not significant)

Viewpoint 13- Kirkleatham Lane, edge of Kirkleatham

Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from Site (km)	Direction of view
459164, 521539	Road users	21	3.8 from PCC 0.35 from Connection Corridors	South-west

At construction

Visual susceptibility to change	Value of view	Sensitivity of receptor
View forms secondary focus from the edge of the conservation area. Therefore, susceptibility is considered to be medium.	Medium	Medium for road users.

Size/ scale, duration and reversibility of impact at construction

Close proximity view towards construction activities associated with the undergrounding Electrical Connection Corridor in this area. As a result of the location of the working corridor, there is the potential that intermittent, filtered views of construction operations may be visible. The impact is assessed to be very low, short term and reversible.

Magnitude of impact at construction		Very low
Significance of effect at construction	Road users	Negligible adverse (significant)

Size/ scale, duration and reversibility of impact at opening

At this assessment year there would be no discernible change to the view in comparison to baseline. It is anticipated that the stacks and pylons would not be visible from this location. Therefore, there will be no change to the view as a result of the Proposed Development.

Magnitude of impact at opening		No change
Significance of effect at opening	Road users	No change

Size/ scale, duration and reversibility of impact at operation

The view will be similar to that assessed at opening. Therefore, there will be no change to the view as a result of the Proposed Development.

Magnitude of impact at operation		No change
Significance of effect at operation	Road users	No change

Viewpoint 14- Grange Estate, Lazenby

Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from Site (km)	Direction of view
457294, 519998	Residential	30	4.9 from PCC 0.26 from Connection Corridors	North-west

Visual susceptibility to change	Value of view	Sensitivity of receptor
View forms secondary focus from the rear of residential receptors at this location. Therefore, susceptibility is considered to be high.	Low.	Medium for residents.

Size/ scale, duration and reversibility of impact at construction

Middle range views towards construction operations associated with the above ground Electrical Connection Corridor and close proximity views towards the underground Electrical Connection Corridor. Construction activity will result in the removal of minimal areas of existing tree planting. It is anticipated that there will be limited change to the screening function of existing bunds and planting as a result of construction operations. The impact is assessed to be very low, short term and reversible.

Magnitude of impact at construction		Very low
Significance of effect at construction	Residential	Negligible adverse (not significant)

Size/ scale, duration and reversibility of impact at opening

At this assessment year there would be no discernible change to the view in comparison to baseline. It is anticipated that the stacks and pylons would not be visible from this location. The impact is assessed to be very low, long term and reversible.

Magnitude of impact at opening		Very low
Significance of effect at opening	Residential	Negligible adverse (not significant)

Size/ scale, duration and reversibility of impact at operation

Existing planting will have gained additional height and density, providing further screening of the existing industrial structures within the view. It is anticipated that there would be no discernible change to the view as a result of the Proposed Development. The impact is assessed to be very low, long term and reversible.

Magnitude of impact at operation		Very low
Significance of effect at operation	Residential	Negligible adverse (not significant)

Viewpoint 15 - Birchington Avenue

Grid reference	Receptor type	Elevation (m AOD)	Approx. distance from Site (km)	Direction of view
455495, 520024	Residential	14	5 from PCC 0.34 from Connection Corridors	North-east

Visual susceptibility to change	Value of view	Sensitivity of receptor
View forms primary focus for residential receptors at this location. Therefore, susceptibility is considered to be high.	Low.	Medium for residents.

Size/ scale, duration and reversibility of impact at construction

Close proximity views towards construction operations associated with the above ground Electrical Connection Corridor including the installation of pylons. High level construction activity will be visible above the existing tree planting, seen in the context of existing tall structures and plumes. There will be minimal change to the characteristics of the view. The construction operations will be noticeable but will not alter the overall balance of the view. The impact is assessed to be low, short term and reversible.

Magnitude of impact at construction		Low
Significance of effect at construction	Residential	Minor adverse (not significant)

Size/ scale, duration and reversibility of impact at opening

At opening the majority of the operational pylons will be screening behind existing tree planting. The pylons will be barely noticeable and cause minimal change to the characteristics of the view. The impact is assessed to be very low, long term and reversible.

Magnitude of impact at opening		Very low
Significance of effect at opening	Residential	Negligible adverse (not significant)

Size/ scale, duration and reversibility of impact at operation

Existing planting will have gained additional height and density, providing further screening of the existing structures within the view. It is anticipated that there would be no discernible change to the view as a result of the Proposed Development. The impact is assessed to be very low, long term and reversible.

Magnitude of impact at operation		Very low
Significance of effect at operation	Residential	Negligible adverse (not significant)

Table 17-9: Summary of Effects on Visual Amenity

Viewpoint Reference	Sensitivity of receptor	Receptor location	Receptor type	Significance of effect		
				Construction	Opening	Operation
1	High	Albion Terrace, Hartlepool	Residential and PRow users	Negligible adverse (not significant)	Negligible adverse (not significant)	Negligible adverse (not significant)
2	High	The Cliff, Seaton Carew	Residential and PRow users	Minor adverse (not significant)	Negligible adverse (not significant)	Negligible adverse (not significant)
3	High	Teesmouth National Nature Reserve, England Coast Path	Recreational	Minor adverse (not significant)	Minor adverse (not significant)	Minor adverse (not significant)
4	High	North Gare Sands	Recreational	Moderate adverse (significant)	Minor adverse (not significant)	Minor adverse (not significant)
5	High	South Gare Breakwater	Recreational	Moderate adverse (significant)	Minor adverse (not significant)	Minor adverse (not significant)
6	High	Cowpen Bewley Country Park	Recreational	Negligible adverse (not significant)	Negligible adverse (not significant)	Negligible adverse (not significant)
7	Medium	England Coast Path, Warrenby	Recreational	Moderate adverse (significant)	Moderate adverse (significant)	Moderate adverse (significant)
8	High	Redcar seafront	Recreational and residential	Moderate adverse (significant)	Moderate adverse (significant)	Moderate adverse (significant)
9	Medium	Coatham Marsh Nature Reserve	Recreational	Minor adverse (not significant)	Minor adverse (not significant)	Minor adverse (not significant)
10	High	Eston Nab	Recreational	Negligible adverse (not significant)	Negligible adverse (not significant)	Negligible adverse (not significant)
11	Medium	Longbeck Lane	Residential, road users	Negligible adverse (not significant)	Negligible adverse (not significant)	Negligible adverse (not significant)
12	High	Carpark off A1085 Coast Road, Marske by the Sea	Recreational	Negligible adverse (not significant)	Negligible adverse (not significant)	Negligible adverse (not significant)

Viewpoint Reference	Sensitivity of receptor	Receptor location	Receptor type	Significance of effect		
				Construction	Opening	Operation
13	Medium	Kirkleatham Lane, edge of Kirkleatham	Road users	Negligible adverse (not significant)	No change	No change
14	Medium	Grange Estate, Lazenby	Residential	Negligible adverse (not significant)	Negligible adverse (not significant)	Negligible adverse (not significant)
15	Medium	Birchington Avenue, Grangetown	Residential	Minor adverse (not significant)	Negligible adverse (not significant)	Negligible adverse (not significant)

Dynamic Views

- 17.6.14 Users of the main transport routes and long distance trails will gain dynamic views towards the PCC to varying degrees dependent on intervening structures, screening vegetation, elevation and direction of travel. Due to the height of the tallest structure within the Site (the stacks, with a maximum height of 120 m) these receptors will gain a wide variety of views, dependent upon the proximity to the Proposed Development, and direction of travel.
- 17.6.15 Within the Study Area there are a number of local roads in close proximity of the PCC and Connection Corridors which join the settlements. Generally views from these roads will be dynamic and ever changing. Views are often broken or restricted by screening vegetation and built form located along the road corridors. Where views are open, the stacks and associated plumes will be clearly visible, appearing prominent in close views.

Decommissioning

- 17.6.16 The impacts on landscape character and visual amenity arising as a result of decommissioning of the Proposed Development are considered (using professional judgement) to be similar to those identified at the construction stage. For landscape this is as a result of the scale and nature of the development in relation to the existing industrial structures and complexes present in the wider landscape and the large-scale of the landscape character areas. For visual amenity this is as a result of the visibility of decommissioning and demolition activities not being prominent for the majority of viewpoints as a result of long distance views, intervening vegetation and the presence of mature screen planting in proximity to the Electrical Connection Corridor.

Mitigation and Enhancement Measures

- 17.6.17 Significant adverse landscape effects have been assessed for a number of landscape receptors, as follows:
- Redcar Flats LCTr during the construction assessment scenario; and
 - Coastal Fringe LCT during the construction assessment scenario.
- 17.6.18 Significant adverse visual effects have been assessed for a number of representative viewpoints, as follows:
- Viewpoint 4 (North Gare Sands) during the construction assessment scenario;
 - Viewpoint 5 (South Gare Breakwater) during the construction assessment scenario;
 - Viewpoint 7 (England Coast Path, Warrenby) during construction, opening and operation assessment scenarios; and
 - Viewpoint 8 (Redcar seafront) during construction, opening and operation assessment scenarios.
- 17.6.19 Section 2.65 of NPS EN-2 (DECC, 2011b) states that *'It is not possible to eliminate the visual impacts associated with a fossil fuel generating station.'*

Mitigation is therefore to reduce the visual intrusion of the buildings in the landscape and minimise impact on visual amenity as far as reasonably practicable’.

17.6.20 The following mitigation measures will be undertaken as part of design development to address requirements of a number of relevant planning policies:

- the design of the Proposed Development will seek to minimise adverse impacts on visual amenity through appropriate siting of infrastructure including materials and colours. (EN-1, EN-2, N1, SD8).

17.6.21 No potential additional mitigation has been identified for Viewpoints 4, 5 and 7 due to the proximity to the Proposed Development and the scale of the structures.

Limitations or Difficulties

17.6.22 The technical difficulties in, or limitations on, carrying out the landscape and visual impact assessment are detailed below.

17.6.23 Field visits were conducted on 20th November 2019 and 23rd January 2020 and so a comparison of visibility of visual effects over four seasons or during a wide range of light and weather conditions has not yet been possible. The field visit was undertaken with trees with no full leaf cover, to represent a ‘worst case’ scenario. Land outside of the control of OCGI Climate Investments LLP (the Applicant) was accessed from points of public access (roads and public rights of way). This is good practice and has not affected the appropriateness of the viewpoints selected nor the robustness of the assessment.

17.6.24 Guidance (Landscape Institute and IEMA, 2013) suggests that consideration be given to seasonal variation in effects where appropriate but acknowledges that the timing of the assessment may mean that this is not practical.

17.6.25 A further site visit will be undertaken during the summer months when there is leaf cover and where there are important differences between seasonal views this will be indicated in and taken into consideration in reaching conclusions. Summer viewpoint photography will also be taken, and this will inform the preparation of the final ES to support the DCO application.

17.6.26 An assessment of the impacts of light pollution as required by NPS EN-1 (BEIS, 2011) has not been carried out within this PIE Report as the Lighting Strategy has not yet been prepared. The Lighting Strategy and the approach to necessary lighting of the Proposed Development will be appropriately assessed as part of the ES.

17.6.27 It is anticipated that during the consultation process a number of alternative or additional viewpoints may be identified by consultees. The viewpoints that have been included within the assessment were based on representative views from where the receptor was considered the most sensitive (based on professional judgement). The inclusion of the additional or alternative

viewpoints in the final ES will be considered once a further site visit has been undertaken.

17.7 Residual Effects and Conclusions

- 17.7.1 The assessment has determined that the Proposed Development is likely to result in significant short-term adverse landscape effects during construction within the Redcar Flats LCTr and Coastal Fringe LCT due to the close proximity of the Proposed Development and the extent of widespread views available. Impacts within Redcar Flats LCTr and Coastal Fringe LCT would reduce to not significant during opening and operation.

The assessment has determined that recreational receptors at England Coastal Path (Viewpoint 7) and Redcar seafront (Viewpoint 8) are likely to experience significant long-term adverse effects during construction, opening and operation as a result of the close distance, limited intervening vegetation or structures and prominence of structures associated with the Proposed Development.

- 17.7.2 The assessment has determined that a small number of recreational receptors; North Gare Sands (Viewpoint 4), South Gare Breakwater (Viewpoint 5), England Coastal Path (Viewpoint 7) and Redcar seafront (Viewpoint 8) are likely to experience significant short-term adverse effects during construction as a result of the close distance and limited intervening vegetation. The impact on receptors at North Gare Sands (Viewpoint 4) and South Gare Breakwater (Viewpoint 5) would reduce to not significant during opening, however effects would remain significant along the England Coastal Path (Viewpoint 7) and Redcar Seafront (Viewpoint 8) due to the close proximity and prominence of structures associated with the Proposed Development.
- 17.7.3 A summary of significant landscape and visual effects is presented in Table 17-10.

Table 17-10: Summary of Significant Effects

Development Stage	Environmental effect (following development design and impact avoidance measures)	Classification of effect prior to mitigation	Mitigation/ enhancement (if identified)	Classification of residual effect after mitigation	Nature of effect(s) (Long term (Lt)/ Medium term (Mt)/ Short term (St) and Permeant (P)/ Temporary (T) and Direct (D)/ Indirect (In)
Construction	Impact on Redcar Flats LCTr during construction activities	Moderate Adverse (significant)	None	Moderate adverse (significant)	St/T/D
Construction	Impact on Coastal Fringe LCT during construction activities	Moderate Adverse (significant)	None	Moderate adverse (significant)	St/T/D
Construction	Impact on recreational users at viewpoint 4 North Gare Sands during construction activities	Moderate Adverse (significant)	None	Moderate adverse (significant)	St/T/D
Construction	Impact on recreational users at viewpoint 5 South Gare Breakwater- during construction activities	Moderate Adverse (significant)	None	Moderate adverse (significant)	St/T/D
Construction	Impact on recreational users at viewpoint 7 England Coastal Path – during construction activities	Moderate Adverse (significant)	None	Moderate adverse (significant)	St/T/D
Construction	Impact on recreational users at viewpoint 8 Redcar seafront during construction activities	Moderate Adverse (significant)	None	Moderate adverse (significant)	St/T/D
Opening	Impact on recreational users at viewpoint 7 England Coastal Path – during opening	Moderate Adverse (significant)	None	Moderate adverse (significant)	Lt/P/D

Development Stage	Environmental effect (following development design and impact avoidance measures)	Classification of effect prior to mitigation	Mitigation/ enhancement (if identified)	Classification of residual effect after mitigation	Nature of effect(s) (Long term (Lt)/ Medium term (Mt)/ Short term (St) and Permeant (P)/ Temporary (T) and Direct (D)/ Indirect (In))
Opening	Impact on recreational users at viewpoint 8 Redcar seafront during opening	Moderate Adverse (significant)	None	Moderate adverse (significant)	Lt/P/D
Operation	Impact on recreational users at viewpoint 7 England Coastal Path – during operation	Moderate Adverse (significant)	None	Moderate adverse (significant)	Lt/P/D
Operation	Impact on recreational users at viewpoint 8 Redcar seafront during operation	Moderate Adverse (significant)	None	Moderate adverse (significant)	Lt/P/D

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