

6 LANDSCAPE AND VISUAL IMPACT ASSESSMENT

6.1 Introduction

- 6.1.1 This chapter of the Environmental Statement (ES) sets out the approach to the assessment of effects of the proposed development upon the landscape resources and visual receptors within the study area.
- 6.1.2 This chapter describes and addresses the existing landscape and visual resources within the Application Site and the surrounding study area. This includes identification of the character and features of the landscape and consideration of the changes that would result as a consequence of the proposed development. In addition, it considers the potential visual effects arising as a result of the proposed development. The chapter reports on studies (including a combination of field surveys and desktop research) to describe, classify and evaluate the existing resources to form a basis for the assessment of the likely effects of the proposed development.
- 6.1.3 The principal objectives of the assessment are:
- to describe, classify and evaluate the existing landscape and townscape likely to be affected by the project during its construction and operational phases;
 - to identify visual receptors with views of the proposed development; and
 - to identify effects on landscape, townscape and views and assess their significance, taking into account measures proposed to reduce or avoid any effects identified.

6.2 Assessment Methodology

Planning Policy Context

- 6.2.1 A full list of relevant planning policy for Redcar Energy Centre (REC), from hereinafter referred to as the Application Site, is included within Appendix 6.1.

National Planning Policy

- 6.2.2 The National Planning Policy Framework (NPPF) was published in 2012 and updated in 2018 and 2019 (Ministry of Housing, Communities and Local Government, 2019). The NPPF outlines the Government's position on planning policy in England and includes specific information on the quality and design of developments specifically in relation to landscape and visual matters. Paragraph 127 indicates that:

'Planning policies and decisions should ensure that...

...b) visually attractive as a result of good architecture, layout and effective landscaping;

respond to local character and history, including the surrounding built environment and landscape setting...'

- 6.2.3 In addition to the NPPF, the Government also published the National Planning Practice Guidance (NPPG) (Ministry of Housing, Communities and Local Government, 2016 as amended). The guidance is not intended to provide further policy, but to further clarify issues relevant to the planning regime.

6.2.4 Further details of the information contained within the NPPF of relevance is provided in Appendix 6.1 and Chapter 5: Planning Policy.

Local Planning Policy

6.2.5 The following section sets out the local policies that are considered to be relevant to this assessment. The Application Site lies within the administrative area of Redcar and Cleveland Borough Council (RCBC). The current development plan for RCBC and the planning policies of relevance for this Chapter of the Environmental Statement are contained in the following documents;

- Redcar & Cleveland Local Plan (May 2018); and
- Tees Valley Joint Minerals and Waste Development Plan Documents – Core Strategy DPD (September 2011)

6.2.6 The RCBC are currently in the process of preparing a new Local Plan and are presently consulting on sites which may have the potential for future development.

6.2.7 The policies that are of relevance to this chapter are:

- Policy N1 Landscape - the Application Site adjoins a Sensitive Landscape Area (SLA) (Policy N 1) which covers the length of Bran Sands and Coatham Sands, and the area of dunes/ Coatham Sand Banks in between. This area of coastline is outside the Heritage Coast which lies further along the coastline to the east from Old Saltburn. The SLA is considered to be a locally important landscape, influenced by the existing industrial and residential areas that it adjoins.
- Policy N2 Green Infrastructure – there is a green wedge between the industrial area in which the Application Site is located, and residential development at Coatham and Dormantown to the east. Part of the Green Wedge is also designated as a Restoration Landscape Area (Policy N 1). Along the main spine roads through the district, there are designated Strategic Landscape Areas (Policy N 2), which in part characterise the local area when travelling through the district.
- Policy N4 Biodiversity and Geological Conservation.
- Policy HE1 Conservation Areas.

6.2.8 Planning designations relevant for this chapter are shown on Figure 6.1. Further details of policy are included within Appendix 6.1 and Chapter 5: Planning Policy.

Relevant Guidance

6.2.9 As a matter of best practice, this assessment has been undertaken based on the relevant guidance on landscape and visual impact assessment (LVIA) described in the following documents:

- Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3) (Landscape Institute and Institute of Environmental Management & Assessment (IEMA), 2013);
- Landscape Character Assessment Guidance for England and Scotland (The Countryside Agency and Scottish Natural Heritage, 2002);
- An Approach to Landscape Character Assessment (Natural England, 2014); and
- Technical Guidance Note 06/19, Visual Representation of Development Proposals (Landscape Institute, September 2019).

Study Area

- 6.2.10 A 25 km radius study area had been used for this assessment due to the height of the proposed development; the stack would be 80-90 metres above ground level (further details are provided in Chapter 2: Project Description). It is anticipated that any potential effects would be well within this radius. Following consultation, and site work, additional viewpoints have been included (refer to the Consultation section and Table 6.1 below).
- 6.2.11 In order to further determine available views, a computer-generated Zone of Theoretical Visibility (ZTV) model was run and mapped. The ZTV can be defined as the theoretical area from which part of the proposed development would potentially be visible and broadly defines the study area for both the landscape character and visual assessment. The ZTV is illustrated on Figure 6.2a, 6.2b and 6.2c. These illustrate the theoretical visual envelope for the stack (at a maximum height of 90 metres), the stack and parameters of the proposed buildings (17.5 metres to 49 metres) and combined ZTV at a closer scale, respectively.

Baseline Methodology

- 6.2.12 This LVIA has been based on the methodology in GLVIA3 (Landscape Institute and IEMA, 2013).
- 6.2.13 In order to undertake a complete assessment, several stages were identified and addressed with reference to the guidance in GLVIA3(Landscape Institute and IEMA, 2013). In summary, the stages were as follows:
- establishment of the study area;
 - desk studies;
 - field surveys (undertaken during May 2020);
 - consultation;
 - iterative design; and
 - assessment of significance of effects.

Consultation

- 6.2.14 Table 6.1 sets out the consultation undertaken as part of the EIA process, relevant to the LVIA.

Table 6.1: Consultation Responses Relevant to Landscape and Visual Impact Assessment

Date	Consultee and Issues Raised	How/ Where Addressed
March 2020 (Pre application meeting)	<p>Redcar and Cleveland Borough Council</p> <p>A pre-application meeting was held with RCBC and Candidate Viewpoints have been selected (among others) from Marsh Farm, Seaton Carew and multiple from the English Coast Path.</p>	These views have been included within our representative viewpoint selection along with other views from various distances and orientations, informed by our site visits.
May 2020 (Pre application meeting and follow up letter)	<p>Natural England</p> <p>The following comments were raised regarding landscape design shown on the project layout.</p> <p><i>'I also raised concerns regarding the landscaping depicted on the site layout. As discussed this is an area of relatively low-lying vegetation based, adjacent to a fixed dune system, and</i></p>	Natural England's comments have been taken into account and are reflected within the landscape strategy and planting schedule (see Figure 6.9).

Date	Consultee and Issues Raised	How/ Where Addressed
	<p><i>so trees and shrubs, as shown, would not be in keeping with the wider environment locally. Any landscaping or planting that does happen on site should reflect the wider ecology of the area, and ideally any planting should use locally sourced seeds. You agreed to revisit the landscaping proposals to address these concerns.'</i></p>	

Assessment Criteria and Assignment of Significance

- 6.2.15 This assessment is based on the methodology in the GLVIA3 (Landscape Institute and IEMA, 2013), which recommends that an LVIA “concentrates on principles and process” and “does not provide a detailed or formulaic recipe” to assess effects, it being the “responsibility of the professional to ensure that the approach and methodology are appropriate to the task in hand” (preface to the Third Edition). The effects on the landscape resources or visual receptors (people) are assessed by considering the proposed change in the baseline conditions (the impact of the proposal) against the type of landscape resource or visual receptor (including the importance and sensitivity of that resource or receptor). The methodology is set out in detail below. These factors are determined through a combination of quantitative (objective) and qualitative (subjective) assessment using professional judgement.

Receptor Sensitivity

- 6.2.16 Landscape sensitivity is referred to in GLVIA3 (Landscape Institute and IEMA, 2013) at paragraph 5.39: “Landscape receptors need to be assessed firstly in terms of their sensitivity, combining judgements of their susceptibility to the type of change or development proposed and the value attached to the landscape.”
- 6.2.17 The sensitivity of landscape resources and visual receptors is dependent on a range of factors and is classified on a five-point scale (negligible, low, medium, high and very high) as set out in Tables 6.2 and 6.3 below. Sensitivity relates to general categories rather than being project specific. Professional judgement has then been used together with the criteria defined in Tables 6.2 and 6.3 in order to more accurately assess the sensitivity / susceptibility of the resource / receptor to the project.
- 6.2.18 Table 6.3 draws on the GLVIA3 (Landscape Institute and IEMA, 2013) paragraphs 6.33 to 6.44 in relation to visual receptors. However, it should be noted that paragraph 6.32 of GLVIA3 (Landscape Institute and IEMA, 2013) refers to the susceptibility of different visual receptors to changes in views and states that “the occupation or activity of different people experiencing the view at particular locations” should be recorded as well as “the extent to which their attention or interest may therefore be focused on the views and the visual amenity they experience at particular locations.” The subsequent sections of this chapter describe the existing available views (see Baseline Conditions section) and the change in these views as a result of the project (Assessment of Effects section).

Resource Value

- 6.2.19 Landscape Value is referred to in the GLVIA3 (Landscape Institute and IEMA, 2013) at paragraph 5.44 as “the value of any Landscape Character Type or Areas that may be affected, based on review of any designations at both national and local levels, and, where there are no designations, judgements based on criteria that can be used to establish landscape value” and “the value of individual contributors to landscape character, especially the key characteristics, which may

include elements of the landscape, particularly landscape features, notable aesthetic, perceptual or experiential qualities, and combinations of these contributors.”

- 6.2.20 The value of certain landscapes are nationally recognised and designated, e.g. Areas of Outstanding Natural Beauty (AONBs). Some landscapes are locally designated e.g. Areas of Great Landscape Value (AGLVs).
- 6.2.21 Other landscapes are undesignated but valued locally for specific reasons or specific elements/features or perceptual qualities. The value of an area of landscape is expressed both through designation and also other criteria, such as tranquillity, remoteness, wildness, scenic beauty, cultural associations, conservation interests, public attitudes and amenity/tourism uses.
- 6.2.22 How the landscape value may be affected by a development is classified on a five-point scale (negligible, low, medium, high and very high) as set out in Table 6.2 below. Table 6.3 also sets out the definition of these terms relating to the sensitivity and value of the visual resource.

Table 6.2: Definitions of Landscape Sensitivity and Value

Sensitivity	Typical Descriptors	
	Landscape Resource Sensitivity	Landscape Resource Value
Very High	Exceptional landscape quality, no or limited potential for substitution. Key elements or features well known to the wider public. Little or no tolerance to change.	Nationally/internationally designated/valued landscape, or key elements or features of nationally/internationally designated landscapes. Little or no tolerance to change.
High	Strong/distinctive landscape character; absence of landscape detractors. Low tolerance to change.	Regionally/nationally designated/valued countryside and landscape features. Low tolerance to change.
Medium	Some distinctive landscape characteristics; few landscape detractors. Medium tolerance to change.	Locally/regionally designated/valued countryside and landscape features. Medium tolerance to change.
Low	Absence of distinctive landscape characteristics; presence of landscape detractors. High tolerance to change.	Undesignated countryside and landscape features. High tolerance to change.
Negligible	Absence of positive landscape characteristics. Significant presence of landscape detractors. High tolerance to change.	Undesignated countryside and landscape features. High tolerance to change.

Table 6.3: Definitions of Visual Sensitivity

Sensitivity	Typical Descriptors	
	Visual Resource Sensitivity	Visual Resource Rationale
Very High	Views of remarkable scenic quality, of and within internationally designated landscapes or key features or elements of nationally designated landscapes that are well known to the wider public.	Observers, drawn to a particular view, including those who have travelled from around Britain and overseas to experience the views.

Sensitivity	Typical Descriptors Visual Resource Sensitivity	Visual Resource Rationale
	Little or no tolerance to change.	Little or no tolerance to change.
High	Views from residential property, more scenic public rights of way and nationally designated countryside/landscape features with public access and National Trails.	Observers enjoying the countryside from their homes or pursuing quiet outdoor recreation are more sensitive to visual change.
	Low tolerance to change.	Low tolerance to change.
Medium	Views from local roads and routes crossing designated countryside/landscape features and 'access land'. Pedestrians using other public rights of way, as well as promoted paths.	Observers enjoying the countryside from vehicles on quiet/promoted routes or pedestrians on less scenic rights of way are moderately sensitive to visual change.
	Medium tolerance to change.	Medium tolerance to change.
Low	Views from work places, main roads and undesignated countryside/landscape features.	Observers in vehicles or people involved in outdoor activities where attention is not focused on landscape are less sensitive to visual change.
	High tolerance to change.	High tolerance to change.
Negligible	Views from within and of undesignated landscapes, with significant presence of landscape detractors.	Observers in vehicles or people involved in frequent or frequently repeated activities are less sensitive to visual change.
	High tolerance to change.	High tolerance to change.

Magnitude of Impact

- 6.2.23 The magnitude of impact of a particular proposal depends upon the:
- nature of proposed development and perceived change;
 - scale of proposed change;
 - duration of change; and
 - reversibility.
- 6.2.24 The magnitude of the predicted impact has been described using criteria outlined above and detailed in the methodology below.
- 6.2.25 Magnitude of impact has been classified on a five-point scale (no change, negligible, low, medium, and high). The definitions of terms relating to the magnitude of impact are set out in Table 6.4.

Table 6.4: Example Definitions of Magnitude

Magnitude	Typical Descriptors Landscape Resource	Visual Resource
High	Total loss or addition or/very substantial loss or addition of key elements/features/patterns of the baseline i.e., pre-development landscape and/or introduction of dominant, uncharacteristic elements with the attributes of the receiving landscape.	Complete or very substantial change in view, dominant involving complete or very substantial obstruction of existing view or complete change in character and composition of baseline, e.g., through removal of key elements.
Medium	Partial loss or addition of or moderate alteration to one or more key elements/features/patterns of the baseline i.e., pre-development landscape and/or introduction of elements that may be prominent but may not necessarily be substantially uncharacteristic with the attributes of the receiving landscape.	Moderate change in view: which may involve partial obstruction of existing view or partial change in character and composition of baseline i.e., pre-development view through the introduction of new elements or removal of existing elements. Change may be prominent but would not substantially alter scale and character of the surroundings and the wider setting. Composition of the views would alter. View character may be partially changed through the introduction of features which, though uncharacteristic, may not necessarily be visually discordant.
Low	Minor loss or addition of or alteration to one or more key elements/features/patterns of the baseline i.e., pre-development landscape and/or introduction of elements that may not be uncharacteristic with the surrounding landscape.	Minor change in baseline i.e., pre-development view – change would be distinguishable from the surroundings whilst composition and character would be similar to the pre-change circumstances.
Negligible	Very minor loss or addition of or alteration to one or more key elements/features/patterns of the baseline i.e., pre-development landscape and/or introduction of elements that are not uncharacteristic with the surrounding landscape approximating to a ‘no-change’ situation.	Very slight change in baseline i.e., pre-development view – change barely distinguishable from the surroundings. Composition and character of view substantially unaltered.
No change	No loss, alteration or addition to the receiving landscape resource.	No alteration to the existing view.

Significance of Effects

- 6.2.26 The purpose of an EIA is to determine the likely significant environmental effects of a project. It is recognised that new development will lead to some landscape and visual effects. However, it should be stressed that not all landscape and visual effects arising will be significant in EIA terms.
- 6.2.27 GLVIA3 (Landscape Institute and IEMA, 2013) explains, at paragraph 5.55, that a staged approach can be adopted when assessing landscape significance *“susceptibility to change and value can be combined into an assessment of sensitivity for each receptor, and size/scale, geographical extent and duration and reversibility can be combined into an assessment of magnitude for each effect. Magnitude and sensitivity can then be combined to assess overall significance.”*
- 6.2.28 Within this assessment, the assessment of significance has taken the following into account (as appropriate):

- reference to regulations or standards;
- reference to best practice guidance;
- reference to policy objectives;
- reference to criteria, for example designations or protection status;
- outcomes of consultation to date; and
- professional judgement based on local / regional / specialist experience.

6.2.29 Significance varies depending on the receptor's sensitivity and the magnitude of impact of the project. The distance to the development can be a major factor in determining the magnitude of the impact. Those resources or receptors closer to the project are likely to experience a greater significance of effects than those further away.

6.2.30 A significant effect would not necessarily mean that the effect is unacceptable in planning terms. What is important is that the likely effects of any proposal are transparently assessed and understood in order that the determining authority can bring a balanced and well-informed judgement to bear when making any decision. This judgement should be based upon weighing up the benefits of the proposal against the anticipated effects, both positive and negative.

6.2.31 The following matrix has been used to guide the assessment of effects. Where the matrix provides a choice of level of effects, e.g., minor or moderate, the assessor has exercised professional judgement in determining which of the levels is more appropriate.

Table 6.5: Assessment Matrix

Sensitivity	Magnitude of Impact				
	No Change	Negligible	Low	Medium	High
Negligible	No change	Negligible	Negligible or Minor	Negligible or Minor	Minor
Low	No change	Negligible or Minor	Negligible or Minor	Minor	Minor or Moderate
Medium	No change	Negligible or Minor	Minor	Moderate	Moderate or Major
High	No change	Minor	Minor or Moderate	Moderate or Major	Major or Substantial
Very high	No change	Minor	Moderate or Major	Major or Substantial	Substantial

6.2.32 The significance of effect on landscape, views and visual amenity has been described according to the six-point scale shown in the above matrix (substantial, major, moderate, minor, negligible or no change). A description of these terms is provided in Table 6.6.

Table 6.6: Definitions of Significance Criteria

Magnitude	Typical Descriptors	
	Landscape Resource	Visual Resource
No Change	Where proposals would not alter the landscape character of the area.	Where proposals would retain existing views.
Negligible	Where proposed changes would have an indiscernible effect on the character of an area.	Where proposed changes would have a barely noticeable effect on views/visual amenity.

Magnitude	Typical Descriptors Landscape Resource	Visual Resource
Minor	Where proposed changes would be at slight variance with the character of an area.	Where proposed changes to views, although discernible, would only be at slight variance with the existing view.
Moderate	Where proposed changes would be noticeably out of scale or at odds with the character of an area.	Where proposed changes to views would be noticeably out of scale or at odds with the existing view.
Major	Where proposed changes would be uncharacteristic and/or would significantly alter a valued aspect of (or a high quality) landscape.	Where proposed changes would be uncharacteristic and/or would significantly alter a valued view or a view of high scenic quality.
Substantial	Where proposed changes would be uncharacteristic and/or would significantly alter a landscape of exceptional landscape quality (e.g., internationally designated landscapes), or key elements known to the wider public of nationally designated landscapes (where there is no or limited potential for substitution nationally).	Where proposed changes would be uncharacteristic and/or would significantly alter a view of remarkable scenic quality, within internationally designated landscapes or key features or elements of nationally designated landscapes that are well known to the wider public.

6.2.33 For the purposes of this assessment, those effects indicated as being of major or substantial significance, as defined in Table 6.6, are regarded as significant. Effects of moderate and lesser significance have been identified in the assessment but are not considered to be significant. The significance of effects for temporary changes, i.e. those during construction and decommissioning, are likely to be diminished due to their transitory nature. The significance of effect can vary depending on individual circumstances and the baseline situation, for example the presence of landscape designations and/or visual detractors. This is particularly true of the effects on landscape resources for instance in assessing whether (or not) a project would:

- give rise to a new landscape character type in its own right where the project would be the defining landscape characteristic; and/or
- give rise to a new landscape sub-type in which the project would be a major contributory element in defining character.

6.2.34 In the first case the resulting effect would normally be significant. In the second case the assessor must use professional judgement to determine if the effect is significant or not.

Limitations of the Assessment

6.2.35 The visual assessment is based on analysis of views towards the Application Site and includes viewpoints in sensitive locations from which the proposed development would be most visible; not all public viewpoints from which the proposed development would potentially be seen have been included in the assessment. Where impacts to residential and other private views (e.g. commercial occupiers) are noted these have necessarily been estimated.

6.2.36 The information provided in this chapter is considered to allow a robust assessment of the likely landscape and visual effects of the proposed development to be made.

6.2.37 The visual assessment and associated field work have been carried out during summer 2020 when deciduous trees were in full leaf. As such, professional judgement has been used regarding the winter situation.

6.3 Baseline Environment

Overview of the Study Area and Application Site

Site and Local Surrounds

- 6.3.1 The Application Site is located within the western central part of the former Teesside Steel Works site, which is now mostly derelict since its closure in 2015, with some restricted parts still in use by Redcar Bulk Terminal. The Application Site is accessed from the Trunk Road (A1085) to the south east, under a bridge access / security gateway. Within the red line boundary there are a number of small structures, primarily corrugated sheds in form, and areas used for storing skips.
- 6.3.2 The Application Site is adjacent to the Teesmouth and Cleveland Coast Site of Special Scientific Interest (SSSI) to the north and the Teesmouth and Cleveland Coast Special Protection Area (SPA) and Ramsar also lie within close proximity to the north, extending west and east along the coastline. To the west is the River Tees Estuary and associated dockside shipping cranes. The Redcar Bulk Terminal uses a large area for spoil storage and distribution, which lies to the immediate south to the project site, along with industrial structures and conveying machinery to the south and east. The former Teesside Steel Works tanks, furnaces and associated chimneys / working buildings are located to the immediate east. The Application Site and the immediate industrial surrounds are disturbed ground with potential contamination from former use and materials storage.
- 6.3.3 Along the western edge of the river is the Teesmouth National Nature Reserve (NNR) and Seaton Dunes and Common Local Nature Reserve (LNR).
- 6.3.4 Further north on the coast is the Grade II listed South Gare Lighthouse, the only privately-owned light house in England, and to the east is Grade II listed Marsh Farm. Within the residential area of Coatham to the east and within Kirkleatham to the south-east are designated Conservation Areas.
- 6.3.5 Further afield, the northern perimeter of the North York Moors National Park is located up to approximately 11km from the Application Site. Eston Hills – Historic Landscape is located to the south east. The England Coast Path, a long-distance National Trail following the coastline of the country, is located to the east of the Application Site within the Cleveland Golf Course approximately 2.2km at its closest point and continues on the west side of the Tees. The Teesdale Way, located within 500 metres to the north of the Application Site, terminates at South Gare Breakwater to the north and is a promoted path to the Cumbrian Pennines.

Vegetation

- 6.3.6 There is very little existing vegetation on the Application Site. Between the Application Site and the sea to the north there is a progression from sandy beach to dunes with associated grasslands to areas of scrub and reeds within the former pits associated with the steel works. The dunes and manmade bunding around the Application Site offer some limited natural screening between the beach and the site and from the Teesdale Way. There is a similar pattern of vegetation to the north west on the opposite side of the Tees Estuary, but the scrub and grassland is more extensive between the beach and the urban edge of Seaton. This area of coastal common is dominated by low vegetation with little in the way of tall-treed intervening vegetation. This habitat is protected by national and international designations: Seaton Common is a SSSI and forms part of the Teesmouth and Cleveland SPA and RAMSAR.
- 6.3.7 Vegetation of any screening significance is located along the strategic landscape buffers and mounds which adjoin the main roads through the study area. Farmland with hedgerow and tree belt vegetation begins as the land rises out of the industrialised Tees Estuary into the Eston Hills to the south east. There is vegetation associated with residential areas and noted well

designed/managed formal roundabouts within Redcar and smaller towns such as Coatham and at the entrances to the South Tees Business Park and British Steel entrance.

Topography and Drainage

- 6.3.8 The Application Site lies within the Tees Lowlands National Character Area (NCA). The area is largely defined by the wide and open lowlands associated with the River Tees (flowing from south west to north east) and its tributaries, bordered by wetland habitats. The Tees Lowlands NCA lies approximately at an elevation of between 0 and 180 metres above ordnance datum (AOD). The topography rises gradually in parallel to the north east to south west orientation of the River Tees. Approximately 7.4km to the south, the land rises steeply to meet the Eston Hills escarpment, with the landmark Eston Nab marking the highest point at approximately 242 metres, before dropping down again. Approximately 1km further south is the North Yorkshire Moors National Park, where again the land rises steeply, meeting the North York Moors and Cleveland Hills NCA.
- 6.3.9 The level form of the Tees Lowlands NCA continues west along the River Tees into Darlington, where it meets the more undulating topography of the Durham Coalfield Pennine Fringe, Pennine Dales Fringe and Vale of Mowbray. To the north west, the Tees Lowlands NCA rises to meet the Durham Magnesian Limestone Plateau with limestone cliffs along the coast.
- 6.3.10 In the immediate vicinity of the Application Site, distinct topographical features include the Teesmouth and Cleveland Coastal area and the South Gare Breakwater to the north of the Application Site and the industrial site and docks to the east, south and west. There are multiple inlets of water to the south and west of the Application Site to support the docks, with the closest to the south at 1.4km.
- 6.3.11 The Application Site topography generally ranges between 5 and 7 metres AOD, the centre approximately 6 metres AOD. The variation in levels appears due to the presence of mounds from the site's previous use.

Transport Network

- 6.3.12 The Application Site is accessed via an unnamed road off Trunk Road, A1085. The Tees Valley Line, served by Northern Trains and TransPennine Express, serves the existing industrial site, with the main line's Redcar British Steel station approximately 2.3km south east of the Application Site. The A1 (M) is located approximately 24km west of the Application Site, with a north to south orientation.
- 6.3.13 There is no public access into the Application Site itself. The nearest public access route is an unnamed road which provides access to the South Gare Breakwater, via Tod Point Road, with a south east to north-west orientation.

Landscape Character

- 6.3.14 Landscape character can be defined at a variety of scales and a substantial amount of existing published information is available at national, county and district levels (refer to Figure 6.8).

National Landscape Character

- 6.3.15 The Countryside Agency (now Natural England) undertook a landscape characterisation of England, which resulted in the publication of national character areas. The Application Site lies within National Character Area (NCA) 23: Tees Lowlands (May 2013).
- 6.3.16 The key characteristics of this NCA are as follows:
- *“A broad, low-lying and open plain of predominantly arable agricultural land, with low woodland cover and large fields, defined by wide views to distant hills.*

- *A large area of urban and industrial development around the Tees Estuary, much of which is on reclaimed land, contrasts with the quieter rural areas to the south and west.*
- *Major industrial installations around Teesmouth form a dramatic skyline, but are juxtaposed with expansive mudflats, sand dunes and saltmarshes which are nationally and internationally designated for their assemblage of waterfowl.*
- *Slow-moving rivers Tees and Leven meander through the landscape with steep, well-wooded banks.*
- *A distinctive area of low-lying farmland with remnants of former wetland habitat in the flood plain of the River Skerne to the north-west.*
- *Permo-Triassic red mudstones and sandstones are masked by glacial drift and alluvial material but can be seen outcropping at the coast in places.*
- *Principal transport corridors, power lines and energy infrastructure are conspicuous elements in the landscape. Industrial development fringing the tidal reaches of the River Tees contrasts with the surrounding rural landscape.*
- *Brownfield sites where semi-natural vegetation has started to regenerate on previously developed land.*
- *Green corridors such as minor valleys and former railway lines provide inks between urban areas and the surrounding countryside.”*

District Level Landscape Character

- 6.3.17 Whilst the relevant landscape character areas from the national level landscape character studies are included above, the assessment of potential landscape effects uses the District level landscape characterisation study as its baseline.
- 6.3.18 The Application Site falls within Redcar and Cleveland authority and the current Landscape Character Assessment for this area is the Redcar and Cleveland Landscape Character Assessment (RCLCA) (April 2006) and further information within the Redcar and Cleveland Local Development Framework Landscape Character SPD (March 2010). The RCLCA identifies broad Landscape Tracts (LTs). These LTs are subdivided into Landscape Units within the RCLCA; further information is shown within Appendix 6.2 of this assessment for reference. However, for this assessment the LTs of the RCLCA study have been used as a basis for the landscape character baseline.
- 6.3.19 The Application Site itself is not included within any Landscape Tracts in the RCLCA and is located within the industrial area to the east of the Tees, which adjoins the Redcar Flats. Given the exclusions of the industrial and residential townscapes from the district level character assessment, this assessment has characterised these areas into two further Townscape Tracts in order to form a baseline for the potential effects upon the landscape/townscape resource.
- 6.3.20 Parts of the study area also fall within Stockton on Tees and Hartlepool Councils and so the character studies for these areas have also been used for this assessment. For the landscape within the Stockton District, the published landscape character document is the Stockton on Tees Landscape Character Assessment (2011) (STLCA), and for Hartlepool; Hartlepool Landscape Character Assessment (2000) (HLCA).
- 6.3.21 The STLCA divides the landscape into almost 200 Landscape Units. Landscape Character Areas have been derived from these Landscape Units. The assessment covers both rural and some built up areas. For the HLCA, the Borough is divided into a number of Landscape Types, with short descriptions. The assessment is confined to non-developed areas outside settlement boundaries.

6.3.22 The descriptions/key characteristics of the landscape/townscape within the ZTV for the proposed development, and therefore potentially indirectly/perceptually effected, within 3km of the Application Site, are described within Table 6.7 below. A sensitivity judgement for each LT/LCA has been assigned in accordance with the Methodology.

Landscape/Townscape Character Key Characteristics

Table 6.7: Key Landscape/Townscape Characteristics

LCA/LT/BLA	Relevant Key Characteristics / Description (District Level)	Sensitivity
<p>Redcar Broad Townscape Assessment (RPS 2020): Due to the exclusion of the urban/industrial areas in which the Application Site is located and the neighbouring urban/residential areas, an overview of these two broad townscape tracts have been included.</p>		
<p>Redcar Industrial Townscape Tract</p>	<p>Industrial dominated landscape along the River Tees;</p> <p>Large scale-built form including steel works (some disused), tanks, stacks, silos, large container buildings/distribution centres, sewage/water treatment works, energy from waste plants, dockside gantry cranes/structures and related infrastructure such as freight rail connections.</p> <p>Some structures of local industrial cultural importance associated with British Steel.</p> <p>England Coast Path.</p> <p>Areas of brownfield land and contamination</p> <p>Limited vegetation, except for strategic woodland belts along main A roads.</p> <p>Views often enclosed by the industrial elements or woodland belts, taller structures feature within most aspects with limited views to the sea, estuary and out beyond to higher ground to the east and south-east.</p>	<p>Low</p>
<p>Redcar Residential Townscape Tract</p>	<p>Residential area of Redcar including Dormanstown, Coatham and Westfield, with some small pockets of commercial development and some recreational open space</p> <p>Residential area influenced by the industrial nature of neighbouring Redcar Industrial Townscape</p>	<p>Medium</p>

LCA/LT/BLA	Relevant Key Characteristics / Description (District Level)	Sensitivity
	<p>Tract. Residential pattern mixed, some regular, some irregular.</p> <p>Developed coast, sea wall and promenade seafront. Many residential areas have coastal aspect/interface.</p> <p>Views partly enclosed by existing residential development, coastal dunes and bunding along roads. Where views are more open, most views would include built residential elements with industrial features and elevated Eston Hills within the mid to long distance.</p>	
Redcar and Cleveland Landscape Character Assessment (2006)		
<p>Redcar Flats Landscape Tract</p>	<p><i>The Redcar Flats are contained by the escarpment of the Eston Hills to the south and the coast to the north. Over the inland part of the tract, the presence of high-quality farmland has encouraged intensive arable cultivation and the enlargement of fields. The hedgerow pattern is sparse and there are few landscape features to interrupt the open, gently sloping landscape.</i></p> <p><i>Long views predominate in this landscape, and skyline features take on particular importance. The industry at Wilton Works, and the abrupt urban edges of Redcar, Marske, New Marske, Saltburn and the A174 and railway corridors have a strong local influence on landscape character.</i></p> <p><i>Under the Character Assessment, the coastal zone in this tract is classified as Sensitive Landscape. In this open landscape, largely the product of maritime exposure, any development will be very open to view. Location and design are of major importance, and opportunities should be taken to integrate the development into adjacent urban areas and to screen by planting, with shelter provided where exposure would otherwise hinder or prevent successful establishment.</i></p> <p><i>Other Sensitive Landscape areas in this tract are the parkland at Kirkleatham and the wooded valley</i></p>	<p>Medium</p>

LCA/LT/BLA	Relevant Key Characteristics / Description (District Level)	Sensitivity
	<p>at Hazel Grove, where the priority is the retention of existing landscape constituents.</p> <p>The remainder of this tract, inland of the coast, is classified as Restoration Landscape. Existing features in this denuded landscape are relatively sparse, due to hedgerow decline and loss, and their retention is important to 'place' new development, to act as the basis for additional planting, or for the creation of 'new landscape.' Additional planting may comprise, for example, a hedgerow to continue the line of an existing one, or, in preference, form a hedgerow pattern or network and combine with tree planting to create an enhanced landscape structure.</p>	
<p>Eston Hills Landscape Tract</p>	<p>The Eston Hills are characterised by a complex of prominent steep-sided hills linked by low saddles which form a parallel series of foothills, or outliers, to the main escarpment of the Cleveland Hills, which lie within the North York Moors National Park. Open moorland and wooded hillsides and escarpments contribute to the distinctive character of this area and give it an identity unlike any other part of the Borough. An area of parkland at Wilton is important within the tract. Extensive and contrasting views are available from many locations; to the south there is the backdrop of the Cleveland Hills. To the north there are views over the urban and industrial developments of Teesside and Redcar. The Eston Hills Tract consists of three distinct but closely grouped elevated areas: the Eston Hills upland between Dunsdale and Ormesby, the higher land at Upleatham, and that situated between Skelton and Slapewath. Associated with these uplands are 'saddles' of relatively lower land linking them and the slopes that edge them. Also included are the upper reaches of Skelton Beck, known as Tocketts Beck and Waterfall Beck in this tract. Under the Character Assessment, the landscapes in this tract are classified into Sensitive Landscapes over the landscape units on the higher land, the beck</p>	<p>Medium</p>

LCA/LT/BLA	Relevant Key Characteristics / Description (District Level)	Sensitivity
	<p>valleys and the parkland, with Restoration Landscapes over the remainder. The uplands have a high strength of character, a product of a dominant landform and a strong woodland pattern. The lower-lying areas are characterised by a more open landscape structure of isolated woods and hedges set within a farmland context. In the Sensitive Landscapes, changes in character are discouraged and the emphasis is on retention of landscape elements; indeed, changes will take on a visual prominence over much of this area on the more elevated parts. Location and design are of crucial importance. New planting for screening or integration should closely reflect the nature and detail of the existing vegetation. In the Restoration Landscapes, landscape improvements are a priority, whilst retention of those features that do exist is important to integrate any new development into the landscape, to act as the basis for new planting, or for the creation of 'new landscape'.</p>	
<p>Stockton on Tees Landscape Character Assessment (2011)</p>		
<p>East Billingham to Teesmouth Landscape Character Area</p>	<ul style="list-style-type: none"> • Industrial landscape fringing Billingham integrated with large areas of open space including wetlands and reclaimed semi improved pasture; • Farmland is open and flat with minimal landscape features; • Industry dominates area to the east along the River Tees; • Open space within industrial areas contain significant wildlife value with a number of ecological designations present including Sites of Special Scientific Interest (SSSI's), Site of Nature Conservation Importance (SNCI), Special Protection Area (SPA), Ramsar Site and Teesmouth National Nature Reserve; • Important 'ridge and furrow' within the field pattern around the settlement of Cowpen Bewley; • The Stockton to Hartlepool railway line is notable feature 	<p>Low</p>

LCA/LT/BLA	Relevant Key Characteristics / Description (District Level)	Sensitivity
	<p><i>within the landscape, dividing the Landscape Character Area between estuarine and non-estuarine/rural fringe influences;</i></p> <ul style="list-style-type: none"> • <i>Cowpen Bewley Woodland Park provides the only wooded element within this Landscape Character Area.</i> 	
Hartlepool Landscape Character Assessment (2000)		
Estuarine Landscape Type	<p><i>The estuarine area lies in the southeast and eastern fringe of the Borough. Typically, it is defined by flat, featureless plains, which are permeated by or in close proximity to estuarine water bodies. This definition includes areas of semi-natural open water (tidal and fresh), 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. Estuarine land characteristically does not exceed 10 metres AOD.</i></p>	Low to Medium
Coastal Fringe Landscape Type	<p><i>The coastal fringe area to the east of the Borough encompasses not only the beach area itself, but also those adjoining areas of land which can clearly be seen to have been influenced by or be part of the maritime ecosystem. This character area, for the purposes of the study, extends to the normally exposed tidal beach, exposed rock and sea cliff areas, and also man-made features such as coastal defences, harbour or sea wall installations. In addition to these features are the fringe elements normally found adjoining the coast itself, these being defined as coastal dunes, coastal grassland, salt marshes or areas of low tree and shrub cover.</i></p>	Low to Medium

Brief History and Historic Landscape Character (HLC)

6.3.23 As stated, the Application Site is located within the former Teesside Steel Works and forms part of the Redcar Bulk Terminal. Within the North Yorkshire, York and the Lower Tees Valley HLC (2010), the Application Site forms part of element *HNY5854 Teesside Works (Corus)* and is classified as *Industrial – Steel Works, with the period of Post Medieval to Modern - 1872 AD to 2008 AD*. This area is noted to be of “*very large-scale*” and have the attribute of “*...dominant type of industry*”. The HLC is summarised as;

“This is a large area of active Steel Industry, with very large buildings, blast furnace, conveyors, hoppers, cranes, storage areas, cooling towers, flare stacks, offices and wharfs. The previous HLC of marshes and piecemeal enclosure is not visible.”

- 6.3.24 This HLC was completed when the Teesside Steel Works were still active, but the plant closed in 2015, as detailed below.

“The Teesside Steel Works is a large expanse of steelworks that formed a continuous stretch along the south bank of the River Tees from the towns of Middlesbrough to Redcar in North Yorkshire, England. At its height there were 91 blast furnace within a 10 mile radius of the area. By the late 1970s, there was only one left on Teesside. Opened in 1979 and located near the mouth of the River Tees, the Redcar blast furnace was the second largest in Europe.

The majority of the steelworks, including the Redcar blast furnace, Redcar and South Bank coke oven and the BOS plant at Lackenby closed in 2015. The Teesside Beam Mill and some support services still operate at the Lackenby part of the site,” Wikipedia June 2020.

- 6.3.25 Following the closure of the steelworks in 2015, Redcar Bulk Terminal diversified the use of the Application Site from traditional coal and iron ore imports, utilising the existing rail and road infrastructure, to offer bulk discharge rates in excess of 40,000 tonnes per day and storage for bulk and conventional cargoes, (RBT Ltd, 2020).
- 6.3.26 Redcar Bulk Terminal, alongside the Application Site, now form part of the South Tees Regeneration Master Plan (November 2019) created by the South Tees Development Corporation in co-ordination with Tees Valley Combined Authority and Redcar and Cleveland Borough Council (RCBC) – this is discussed further with the Future Baseline section.
- 6.3.27 Within Site Zoning Plan of the Master Plan, the Application Site is located within land zone ‘Redcar Bulk Terminal’ and adjoins Redcar Works Complex. Further descriptions for these zones are described respectively as below;

“REDCAR BULK TERMINAL: RBT is a self-contained major land parcel that was operated under a joint venture between Tata Steel and the former SSI during iron and steel making operations. In recent times, Greybull Capital/British Steel acquired the Tata Steel stake. The deep-water river berth and apron are leased from PD Ports.

The land area has principally been utilised for bulk storage of imported raw materials associated with the Redcar iron and steel making operations (iron ore, coal and limestone), along with coke produced at Redcar and South Bank for export by sea. Prior to these operations, the site was open marshland reclaimed from the river. The RBT area is contained by former SSI Redcar, the Bran Sands Lagoon, STDC and Crown land; designated a Special Protection Area.”

REDCAR WORKS COMPLEX: The former SSI Redcar land area is the largest single parcel within the land assembly. Prior to the construction of the British Steel Corporation’s iron making complex in the 1970s, the site principally comprised reclaimed marshland. The exception is the eastern corner of the site that was previously occupied by historic iron and steel works up to the 1960s (the Warrenby works). The area is, in the main, sparsely populated with large scale plant and buildings, such as, the Raw Materials Handling facility, the Sinter Plant and extensive conveyor systems, with large open land areas that were previously utilised for raw materials storage and processing. In the northern zone, development is more densely laid out, with the Redcar Coke Ovens and Redcar Blast Furnace complexes dominating. Comprehensive ground investigation works have also recently been carried out in this area.”

Site Landscape Character and Immediate Surrounds

- 6.3.28 The Application Site sits within an existing industrial location with existing stacks and buildings of a large scale within the local areas (2 km radius). Structures of height or massing of note, (and could be described as existing landmarks) are the Hartlepool Power Station across the River Tee, structures within the Seal Sands Stockton on Tees, the existing Redcar Bulk Terminal gantry cranes on the estuary bank, as well as offshore turbines and other industrial uses in the Tees Estuary docks. The former Teesside Steel Works structures have a strong characterising effect upon the Application Site. The Application Site itself includes area of disturbed ground and built elements in structural decline, with a general tendency, as well as evidence, of disrepair. The sensitivity of the Application Site itself is considered to be Negligible.
- 6.3.29 The Application Site falls outside of any published landscape character documentation. RPS consider that the townscape in which the Application Site and its immediate industrial surrounds to be Redcar Industrial Townscape Tract. Redcar Bulk Terminal, in which the Application Site is in part located, operates as a deep-water terminal on the south bank of the River Tees and services two gantry cranes. This, alongside the Former Steel Works and further industry along the south side of the Tees are included within the Redcar Industrial Townscape Tract.
- 6.3.30 The partly reclaimed coastal landscape which adjoins the Application Site to the immediate north is within Redcar Flats Landscape Tract and further refined into Landscape Unit R5 Sandy Shoreline (Coatham Sands). R5 is an essentially flat and “...open land extending to and including South Gare and golf course in the eastern part. Much of the Landscape Unit is an SSSI, part of which is also a Special Protection Area (SPA). The intertidal area of the SSSI is also a European Marine Site. The SSSI as a whole, known as ‘South Gare and Coatham Sands’ includes intertidal mud and sand, sand dunes, salt marsh and freshwater marsh, which have developed since construction of the South Gare breakwater in the 1860s. The SSSI also includes Coatham Rocks,” RCLCA 2006. Views of the former steel works are a detracting attribute.

Visual Resource

Zone of Theoretical Visibility (ZTV)

- 6.3.31 To assist in understanding the baseline visual resources of the Application Site and surrounding areas, a ZTV was generated using markers along the boundaries of the built areas within the proposed development. The current study area chosen for the ZTV is 25km radius is included at Figures 6.2a, b and c, as detailed above.
- 6.3.32 The ZTV determined areas from which views are theoretically possible. It is based on a combination of topographical and Light Detection and Ranging (LIDAR) data throughout the study area. The more detailed LIDAR data provides a more accurate (although not definitive) reflection of the screening effect of buildings, structures and vegetation. These datasets have a 2-metre resolution and may not pick up the heights of structures smaller than 2 metres in all dimensions. They are a combination of Infoterra 2 metre Digital Surface model and 10 metre Ordnance Survey Digital Terrain Model data.

View Ranges

- 6.3.33 For the purposes of this assessment, views have been classified according to three distance ‘ranges’ as set out in Table 6.8.

Table 6.8: View Ranges

Range	Distance Threshold	Reasoning Description
Close	Less than 1 km	At close range the proposed development could appear as a 'prominent' feature and visual receptors could experience high to medium/low magnitude of change when compared to existing views.
Medium	Between 1 km and 5 km	In medium range views the proposed development could appear as 'present' features and visual receptors could experience medium/low to negligible magnitude of change compared to the existing situation.
Long	More than 5 km	In long range views the proposed development would read as part of the landscape and visual receptors would tend to experience a low to negligible or lower magnitude of change compared to the existing situation. Given the 80-90m stack of the project, long distance views have been included.

Representative Viewpoints

- 6.3.34 A number of viewpoints were selected to represent the receptors within the study area, from which to assess the change in views that would result from the proposed development (refer to Figure 6.2a, b and c). All viewpoints are situated in publicly accessible locations within the extent of the ZTV, with a range of distances and orientation to the proposed development. Locations of the representative viewpoints is shown at Figure 6.3 and photographs within Figure 6.5. Further photographs collected during field survey are included as contextual viewpoints, the location of these are at Figure 6.4 with the photographs at Figure 6.7. Photomontages are illustrated at Figure 6.6.
- 6.3.35 Summer photographs were taken in May 2020. Overall visibility was good. No winter photographs have been taken and as such any judgement on winter visibility has been made using professional judgement. Table 6.9 below describes the location of the representative viewpoints for this assessment.

Table 6.9: Representative Viewpoints

No. / Name / Sensitivity	OS Grid Reference	Distance from Site	View Location Description
VP1: Teesdale Way / England Coast Path Coastal Margin	456133.6 526316.9	177.7 metres	Close distance view from PRoW (promoted footpath) which connects Warrenby to South Gare Breakwater, looking south-west within close proximity to the Application Site. The existing tanks, stacks and associated structures within the former Teesside Steel Works form prominent built and vertical elements within the view. Dunes within the Teesmouth and Cleveland Coast SSSI feature within the foreground to the view and existing landscape bunding provides some very limited screening to the Application Site / activity at Redcar Bulk Terminal. There is regular traffic moving along the unnamed road which the Teesdale Way follows. The existing Redcar Bulk Terminal gantry cranes feature to the far right of the view. The view is essentially industrial in nature with a foreground of tussock grass and reed beds. There are restricted and channelled views towards Eston Nab within the long distance to the view between the former steel works structures.
Medium			This is the closest most open view towards the Application Site from the Teesdale Way

No. / Name / Sensitivity	OS Grid Reference	Distance from Site	View Location Description
VP2: Saltholme Nature Reserve Bran Sands Medium	455793.5 526685.7	466.2 metres	<p>Close distance view from the north east edge of the Saltholme Nature Reserve Bran Sands within the coastal path margin, looking south within close proximity to the Application Site. The existing structures and stacks provide industrial elements within view. Industrial buildings south of the Application Site would be largely screened. The low elevation of the viewpoint results in the partial obstruction of the Application Site, due to the presence of the sand banks and vegetation of the nature reserve. The low elevation also significantly reduces visibility of the context beyond the industrial site within the middle-ground. In the far-distance, ridge of local landmark Eston Nab is partially visible, although segmented by the immediate structures. Bulk storage within Redcar Bulk Terminal features at the far right of the view. The structures within the Application Site itself are mostly screened by the sand dunes and bunding.</p> <p>At the time of the field survey, the beach was being used by wind and kite surfers and for general amenity. Saltholme Nature Reserve at Bran Sands is the closest public access to the Application Site.</p>
VP3: South Gare Breakwater Viewpoint / Teesdale Way High	455697.8 528007.5	1,788.8 metres	<p>Medium distance view from marked "OS Viewpoint" on South Gare Breakwater, on PRoW Teesdale Way looking south. Existing buildings feature along the breakwater including the Marine Club and the unnamed road here includes extensive areas for parking. Beyond the viewpoint, heading along the breakwater is private land associated with the Grade II listed South Gare Lighthouse.</p> <p>The existing structures and stacks within the Teesside Steel Works provide industrial elements within the view. Coatham Sands beach (part of the Teesdale and Cleveland Coast SPA and Ramsar)) and associated dunes of the SSSI form part of the setting to the view from this formal viewpoint within the foreground. There is some temporary obstruction and interruption to the view due to parking along the access road. The existing Redcar Bulk Terminal gantry cranes also feature, as does the Power Station on the other side of the estuary on the far right to the view. There are further industrial built elements on the skyline, including stacks and tanks at Seal Sands. Beyond the industry, within the long distance to the view, is Eston Nab and further in the distance are hills within the North York Moors National Park.</p> <p>The sheds within the Application Site are just discernible within this elevated view.</p>
VP4: England Coast Path / Cleveland Golf Course High	458068.8 525525.1	2,140.7 metres	<p>Medium distance view from the England Coast Path National Trail adjacent to the active golf course, looking west. The view looks over the Cleveland Golf Course, the Teesmouth and Cleveland Coast SSSI, SPA and Ramsar to the existing structures within the former Teesside Steel Works. These form prominent built and vertical elements within the middle distance to the view. The structures within the Application Site itself are not discernible due to screening offered by the existing structures at the steelworks. The Power Station, and coastline stretch north of the study area, feature on the horizon of the view.</p>

No. / Name / Sensitivity	OS Grid Reference	Distance from Site	View Location Description
VP5: Marsh Farm / England Coast Path High	457948.5 525142.4	2,184.8 metres	Medium distance view from the setting to Listed Building, looking north-westward. The orientation of the house itself, as well as the existing outhouses/infrastructure and enclosures associated with the dwelling, restrict ground floor views to the Application Site from this listed building, and its immediate setting. There are channelled views to the existing tanks at the former steelworks. There is likely to be limited, oblique upper floor views towards the existing structures in close proximity to the Application Site. Note, internal view descriptions are estimated. Bunding along the unnamed road and within the golf course further limit views from this receptor to the Application Site.
VP6: Dormanstown Recreation Ground / Charlton Road Medium	458666.1 524207.0	3,218.5 metres	Medium distance view looking north west, from residential road over recreation ground within Dormanstown. Substantial woodland belt planting and bunding along the Trunk Road restrict views from within the recreation ground and the houses within Dormanstown. The Application Site, and most of the structures around it are screened within the view. Chimneys and, leisure development and other built elements form the horizon to the view. Ground floor views are restricted by garden enclosures and by the vegetation along the roads. There would be greater potential for inter-visibility towards the Application Site and neighbouring industrial area during winter. Many properties here have a rear elevation and some oblique views over the recreation ground towards the existing stacks. But the vegetation and bunding provide very good screening during the summer months.
VP7: West Coatham Lane / International East Gate Bus Stop Low	457645.9 523795.5	2,696.6 metres	Medium distance view from road and bus stop to the south east of the Application Site, looking over Trunk Road roundabout, and the vehicular access to the former Steel works and Redcar Bulk Terminal. The existing stacks break the skyline to the view over the British Steel signage within the middle distance to the view. The Application Site and buildings within it are screened from this view. Bunding and mature vegetation screen the Application Site and much of the industry within close proximity to the view. Traffic movement is regular.
VP8: England Coast Path Margin at Bench and Information Sign. High	453675.2 528154.9	2,854 metres	Medium distance view from England Coast Path National Trail Coastal Margin, looking south east over the River Tees. The foreground across the view consists of undulating sand dunes largely covered by marram grass, within the Teessmouth National Nature Reserve. The River Tees is partially visible through the troughs of the immediate sand dunes. In the middle distance, the Application Site is discernible, including the surrounding structures within the former Teesside Steel Works which form prominent built and vertical elements. Ten wind turbines of the Offshore Teesside Wind Farm are visible to the far left of the view, forming prominent vertical and potentially kinetic features - reaching a similar height to the industrial structures central to the view. To the right of the view are layers of large industrial structures which are only slightly concealed by the vegetation of the immediate sand dunes. The topographical local landmark Eston Nab is visible to the right of the view, followed by the North York Moors National Park beyond towards the centre, gradually more intersected by vertical industrial structures towards the centre of the view as it recedes into the background.

No. / Name / Sensitivity	OS Grid Reference	Distance from Site	View Location Description
VP9: England Coast Path at residential edge of Seaton Carew High	452533.6 529055.1	4,304.2 metres	Medium distance view from England Coast Path National Trail at Seaton Carew, looking south east across the Seaton Carew Golf Club and Teesmouth National Nature Reserve. The Coastal Path continues here, leading off from Tees Road, and meanders to the right of the view, into the middle distance behind low vegetation. The mown level ground of the golf course continues from the middle distance, ending as the topography rises into the undulating coastline, which spans the width of the view. The landform screens the River Tees from view, and partially screens the lower half of the Application Site and the surrounding industrial buildings / structures in the distance. The topographical local landmark Eston Nab is visible to the right of the view, followed by the North York Moors National Park towards the centre.
VP10: England Coast Path / Access to Seaton Reach Beach. High	452382.9 530573.8	5,522.7 metres	Long distance view due south east from England Coast Path. The immediate foreground is occupied by the coastline at Seaton Reach Beach, with rock armour flood defence rocks lining the promenade to the right of the view. The Tees Bay stretches into the middle distance towards the Application Site. The coastline to the right of the view continues into the distance up to the North Gare Breakwater to the left of the centre. Directly behind this surrounding industrial structures at the Application Site, though at this distance the buildings within the Application Site itself are not quite discernible. The existing tanks, structures and stacks rise above the distant ridge within the view. The South Gare Breakwater extends from the centre of the view to the left, ending with the Grade II listed South Gare Lighthouse.
VP11: Cowpen Bewley Woodland Park Viewpoint Medium	448596.2 525704.6	7,042 metres	Elevated, long distance view due east from highpoint within public park. A mature tree line runs across the foreground marking the border between the Cowpen Bewley Woodland Park and Teesmouth and Cleveland Coast SSSI. The middle distance is mostly occupied by Cowpen Marsh and brownfield sites with artificial mounds and sunken reservoirs, which are mostly screened by the varied topography. The landscape is largely open with views to the distant industrial structures. An overhead power line runs across the middle distance, with two fully visible pylon towers in the centre and far left of the view, which cut into the sky and are of similar height to surrounding industrial structures. To the left of the middle distance is the Tees Bay industrial site, comprised of a dense collection of large buildings and tall vertical structures. The Teesmouth National Nature Reserve, containing Greatham Creek is visible on the coast of the River Tees. In the background, surrounding industrial structures to the project site are visible across the river, with the North Sea and the sky forming a backdrop, the Application Site itself is barely discernible at this distance. The Offshore Teesside Wind Farm is visible to the left of the view, partially screened by industrial structures. The high land of North York Moors National Park is faintly visible to the right of the view, intersected by several industrial stacks.

No. / Name / Sensitivity	OS Grid Reference	Distance from Site	View Location Description
VP12: Eston Nab Edge at Flag High	456768.0 518336.0	7,445.4 metres	<p>Elevated, long distance view looking north from Eston Nab Edge. The foreground consists primarily agricultural land, intersected by the A1053 road which meanders to the left of the view and towards the dockyards, industrial buildings and the Application Site. Lackenby Substation is visible at the bottom left of the view, with an associated overhead power line which continues to the right of the view and forwards towards industrial buildings. Across the view, the middle distance is entirely occupied by industrial buildings and structures, including dockyards to the left of the view along the River Tees. Lines of trees and areas of vegetation intersect the industrial sites following alongside the main truck roads through the area.</p> <p>In the background, the North Gare area is visible to the left of the view, which continues on towards the coast of Hartlepool in the distance. A view of the Tees Bay stretches across the view and onwards to the North Sea. The offshore Teesside Wind Farm can be seen to the right of the view; however, the turbines are difficult to distinguish against the backdrop of the sea. The Application Site is just discernible within this elevated landmark view; although partially screened by existing structures within the former steel works.</p>
VP13: Hartlepool / Pilot Pier Medium	452642.9 533443.0	7,883.5 metres	<p>Long distance view south east from the pier within proximity to the residential edge of Hartlepool. View is almost entirely occupied by Tees Bay, with several buoys across the view at medium distance. In the distance on the horizon line are the coasts of Seaton and Coatham, with industrial buildings and structures, including those within proximity to the Application Site, across the view. The site itself is barely discernible at this distance. The topographical local landmark Eston Nab and the North York Moors National Park are faintly visible behind them.</p>
VP14: Warsett Hill Trig Point High	469209.9 521433.0	14,007.9 metres	<p>Elevated, long distance view looking north westward from Trig point on the coastline. Across the foreground are agricultural pastures of open grassland with trees and hedgerows marking several field boundaries. Further into the distance, the pastures meet a cliffside which drops out of view to meet the shore. The middle ground is occupied mostly by the North Sea, with the coastline to the left, which continues into the distance towards the centre of the view. Saltburn Pier can be seen at the far bottom left and the edge, from the town of Saltburn-by-the-Sea. This is followed by the town of Marske-by-the-Sea and then Redcar, consisting of sprawls of suburban housing spaced by agricultural land. In the distance the industrial buildings surrounding the Application Site can be seen to the left of the centre, with industrial buildings continuing to the far left of the view. In the far distance to the right of the view is the offshore Teesside Wind Farm with all 27 wind turbines clearly visible. Behind them is the town of Hartlepool and continuing inland to the left of the view is the town of Billingham. The Application Site itself is screened within the view by existing structures and is barely discernible at this distance.</p>

No. / Name / Sensitivity	OS Grid Reference	Distance from Site	View Location Description
VP15: PRow off A171 / Stanghow Moor (North York Moors National Park). High	465809.6 514415.1	15,131.8 metres	Elevated, long distance view from PRow to the south east of the Application Site. Across foreground is a swathe of upland heathland which continues into the middle ground, dropping steeply out of view into agricultural pastures of open grassland. Dense woodlands rise into view with the topography to form an undulating ridge across the view. Pastures continue into the distance before the topography drops again. In the far distance the River Tees and the tops of the surrounding industrial building and structures can be seen which adjoin the Application Site, though the site itself is barely discernible. In the far distance are the towns of Hartlepool and Billingham surrounded by agricultural land. A wind turbine farm can be seen to the far left of the view. Tees Bay and the North Sea can be seen to the far right of the view.
VP16: Cleveland Way Viewpoint (North York Moors National Park). High	453496.8, 503362.8	22,451.6 metres	Elevated, long distance view from OS Viewpoint within the North York Moors National Park, looking due north. The foreground begins after a steep drop from the viewpoint. A wide and open expanse of clusters of villages, market towns and individual farmhouses, surrounded by fields of agricultural land. Trees and hedgerows are used to discern field boundaries, connecting to larger areas of dense woodland. The topography rises in the distance to the centre and right of the view into areas of agricultural land. The industrial buildings including the tanks and stacks at the former Teesside Steel works which adjoin the Application Site are partially visible in the background beyond the Eston Moor hills. The industrial buildings continue to the left of the view, with Tees Bay and the North Sea visible towards the horizon.

Further Visual Assessment

- 6.3.36 Within 3km of the Application Site, an overview assessment of residential receptor groups, businesses/ places of work, roads and PRow, not covered by the viewpoints in Table 6.9 has been completed. In some cases, this anticipates the baseline view given access restrictions and would provide an overall assessment of effects upon the visual resource for these receptors during the operation of the REC.
- 6.3.37 The nearest residential receptor is an isolated dwelling located approximately 2.2km to the east of the site at Marsh Farm (Grade II listed) on the western edge of Warrenby, which is represented by Viewpoint 5 above. The view towards the Application Site is much obstructed by outbuildings and existing landscape bunding and a soil tip on the edge of the golf course. The chimneys within the former Teesside Steel Works feature within the limited available views from this property.
- 6.3.38 The more densely populated areas are located approximately 3km to the south east of the Application Site on Broadway West, Dormanstown and 3km to the east along York Road, Coatham. There are limited views from properties within Dormanstown due to the landscape bunding and mature woodland along Trunk Road. There would be oblique views from properties within Coatham which also have views to the existing stacks and structures within the former Teesside Steel Works. The Application Site itself is screened by these intervening structures.
- 6.3.39 The closest PRow to the Application Site is the Teesdale Way, which runs along the edge of the former Teesside Steel Works boundary, before heading through the sand dunes along the beach/coast to the north, up to Bran Sands and the South Gare Breakwater, from Marsh Farm/Dormanstown to the west. The England Coast Path is located to the north east, which diverts inland before reaching the Application Site, crosses over the River Tees before traveling north and back to the coastline at North Gare Sands/Teessmouth National Nature Reserve.

Night-time Baseline

- 6.3.40 It is noted that the Application Site was visited during daytime only and therefore, these assumptions and descriptions for the baseline scenario are formed using professional judgement.
- 6.3.41 Within the daytime photographs from VP1 and VP2, there is evidence of existing flood lighting associated with the Redcar Bulk Terminal. Furthermore, given the extent of existing urban development within the baseline scenario, night-time views and character are assumed to include areas of existing residential, street, security and traffic lighting as part of a lit landscape. There would be areas that are unlit, such as the coastal beaches away from the unnamed road towards South Gare Breakwater.

Photomontages

- 6.3.42 To illustrate the proposed development, two representative viewpoint locations have been prepared as rendered photomontages of the project (Viewpoints 4 and 12). These viewpoints were selected for photomontage to represent views to put the project site within its context. These photomontages illustrate the proposals at Summer Year 1.
- 6.3.43 Further representative viewpoints have been selected and prepared to illustrate wirelines of the proposed development. Figures 6.6 illustrate all the wireline and rendered photomontage views selected to inform this assessment.

Future Baseline Conditions

- 6.3.44 It is noted that the Application Site falls within the South Tees Development Corporation (STDC) “South Tees Regeneration Master Plan” (November 2019). As plans are not yet finalised for the areas within the immediate vicinity of the Application Site, the baseline assumes for the near future that the former Teesside Steel Works structures are retained.
- 6.3.45 Regeneration and new investment opportunities are sought by the STDC to transform the area whilst enabling environmental improvement.
- 6.3.46 Areas which have more finalised development plans with 5km of the Application Site have been reviewed as part of the cumulative assessment for this chapter.

6.4 Mitigation Measures Adopted as Part of the Project

- 6.4.1 Early mitigation ideas for the proposed development relate to the layout and massing of proposed buildings. The orientation of the buildings and the external finishes have been designed to help reduce the massing of the built form within the local views. This includes the breaking up of the mass of the energy recovery building through breaking up the overall height and depth changes and careful use of suitable colours. The finishing colours of the proposed development of muted greys and blues have been selected to help assimilate the proposed development into its immediate setting of industry and the sea. The overall external design of the project buildings, including layout, massing and colours, has been developed to aid in reducing its overall landscape and visual impact.
- 6.4.2 No significant vegetation of amenity value has been identified within the Application Site itself to warrant an arboricultural survey or, tree protection fencing in accordance with BS BS5837:2012 Trees in Relation to Design, Demolition and Construction, before any construction commences. However, the proposed 5 metre wall around the along the north / north eastern boundary of the Application Site for the IBA recycling facility, would be constructed early in the construction programme which would provide a level of screening of the construction activities.

- 6.4.3 Also, the landscape proposals have been designed as an integral part of the proposed design to provide treatments appropriate to the coastal/dune setting and internal green spaces. This would offer little in the form of screening the large scale-built elements of the proposals within views, however it is considered that shelterbelt trees (whilst providing a greater level of screening) would not be appropriate landscape treatment to the immediate open coastal setting of the Application Site. Instead, areas of appropriate grassland (tussock and marram grass for sandy soils) alongside pioneering native shrub species are proposed for the landscape treatment, where space allows. The design intention would be to offer some mitigation in relation to the site's sense of place, and provide further biodiversity and habitat for local wildlife. This would offer some softening of the lower parts of the project with minimal screening. There would also be some areas of amenity planting to enclose car parks and provide seasonal interest for the users of the building during operation. Details of the proposed planting are provided in Figure 6.9.
- 6.4.4 Proposed planting included in the Landscape Strategy (see Figure 6.9) for the proposed development would be incorporated during the latter phases of construction to avoid damage by construction activity. The northern boundary would be protected during construction and the buffer in this area would be established in the first available planting season during construction to allow it to have the chance to establish, mature and offer landscape benefits early within the development programme.

Lighting Strategy

- 6.4.5 The proposed development would require external lighting. A full lighting strategy would be submitted to the local planning authority for agreement during the detailed design stage post consent.
- 6.4.6 As the plant would operate on a 24-hour continuous basis, lighting would be selected and positioned in order to minimise light pollution, visual impact on the local environment and energy use but also to ensure safe working conditions for personnel and security. Lighting generally would be located along internal roads and walkways.
- 6.4.7 Fittings would be selected to reflect light to focus on the areas where light is required and avoid light stray and would incorporate measures which would:
- minimise the potential for sky glow by reducing the potential for upward light;
 - minimise light spread through directional lighting; and
 - incorporate shielding to prevent glare.

6.5 Assessment of Construction Effects

- 6.5.1 The construction timeframe would be dependent on securing planning permission and the discharge of planning conditions. The construction phase would be temporary and is anticipated to last for a period of approximately 32 months from start on site to the end of commissioning. It is anticipated that standard construction methodologies would be used in the construction of the infrastructure and buildings. Further details of the intended construction process are included within Chapter 2: Project Description .
- 6.5.2 During construction, the existing fencing would be retained where possible and a further site barrier would be created between the Application Site and Bran Sands (VP2). The construction phase would require temporary site offices, storage of materials and spoil and the use of machinery all of which would be located on the Application Site. Plant to be used during the construction phase would typically include a variety of machinery including, but not restricted to tracked excavators (excavation and loading), articulated dump trucks, concrete pump, wheeled back hoe loaders, cement mixer truck, telescopic handlers, cranes and piling rig(s).

- 6.5.3 Overall, the construction phase of the project would result in the demolition existing structures, and site clearance, ground levelling and redistribution to allow for the installation of substructures and foundations. The proposed superstructure and process equipment would then be constructed, and mitigation planting would be implemented. The assessment of construction effects upon the landscape and visual resources assumes a 'worst-case scenario' whereby the tallest elements of the project would be constructed during the winter season, when trees are without leaf.

Potential Landscape Effects

- 6.5.4 The potential likely effects on the landscape / townscape fabric and character during the temporary construction phase of the project are summarised in Table 6.13 and described below.

Site and Immediate Surrounds

- 6.5.5 Given the Application Site's neighbouring use as Redcar Built Terminal, and its location within an industrial context, the movement of dump-trucks, cement mixers etc. during the construction process would not be out of character or unusual within the immediate context. Taller plant such as cranes are not currently present and therefore, would be at slight variance to the existing character and views, however within the immediate vicinity to the Application Site, tall permanent structures such as chimneys, pylons and turbines are prominent and prevalent within the baseline environment.
- 6.5.6 The temporary activities would occur in an area of landscape that does not exhibit many positive landscape characteristics and is considered to have negligible sensitivity to the change arising from the proposed development. The proposed construction works would cause a medium magnitude of impact to the existing site, resulting in a **minor adverse** significance of effect on the Application Site and the immediate surrounding local area. The introduction of construction activity and the new built elements would be locally prominent but would not necessarily be substantially uncharacteristic with the attributes of the receiving landscape. Overall, potential effects are not considered significant in terms of the methodology for this assessment.

District Level Landscape / Townscape Character

Direct Effects

- 6.5.7 The temporary, short-term construction works would occur within the identified Redcar Industrial Townscape Tract (RPS 2020), a distinctly industrial and urban area alongside the River Tees. The construction phase of the proposed development would have direct effects upon this townscape, with the introduction of construction vehicles and tall plant. However, given the industrial nature of the townscape, and the movement of bulk storage within the immediate vicinity within this townscape tract, awareness of the change due to the construction process would be generally confined to the immediate area of the Application Site. Tall plant use and the escalating built form itself would add a new element of height within the townscape, but this would not be uncharacteristic.
- 6.5.8 There would be direct effects upon this townscape tract due to the construction activity. Overall, the presence of construction vehicles and tall plant/machinery used for the temporary construction works would cause a low magnitude of impact to the character of Redcar Industrial Townscape Tract, which is considered to be of negligible sensitivity to this type of development, resulting in a **negligible adverse** significance of effect during construction. Proposed changes would have an indiscernible effect on the character of this district townscape tract.

Indirect Effects

- 6.5.9 There would be potential indirect effects during the construction phase upon the character of Redcar Residential Townscape Tract (RPS 2020), Redcar Flats Landscape Tract, Eston Hills Landscape Tract, East Billingham to Teesmouth Landscape Character Area, Estuarine Landscape Type and Coastal Fringe Landscape Type, where they fall within the ZTV.
- 6.5.10 The addition of elements of a transient nature through construction traffic and new tall plant into the views would be experienced from within parts of this townscape tract and adjacent landscape areas/types. Where the tall plant and escalating building/stack would be experienced from these townscape/landscapes, it would be seen within the industrial backdrop to the townscape tract or landscape area. Overall there would be the potential for a temporary, short-term and indirect effect upon these receptors of medium and low sensitivity due to the construction of the proposed development, resulting in a negligible magnitude of impact and a **negligible adverse** significance of effect. The introduction of construction activity experienced indirectly, would not be uncharacteristic to the surrounding townscape/ landscape due to the prevalence the industrial setting and vehicular movement to each of these character areas.
- 6.5.11 Beyond 5km, the potential for effects due to the construction phase upon the inherent characteristics of the landscape would be barely noticeable and considered to be no change.

National Landscape Character

- 6.5.12 At a much broader scale, the construction activities within the Application Site would directly affect a very small part of the NCA 23: Tees Lowlands. Given the location of the Application Site within the urban industrialised part of the NCA, it is anticipated that the construction of the project, would cause very little change to the inherent characteristics of this NCA, which of medium sensitivity. The temporary construction activities would cause a negligible magnitude of impact and no more than a **negligible adverse** significance of effect upon the Tees Lowlands NCA.

Potential Visual Effects

- 6.5.13 Visual impacts result from change to the appearance of the landscape as a result of the proposed development either intruding into, or obstructing, existing views or by their overall impact on visual amenity. A ZTV was produced to establish the extent to which the proposed development would be visible. The height of the cranes required to construct the proposed development are anticipated to be of a slightly greater height than the 90 metre stack, therefore there would be the potential for a slight increase to the ZTV envelope during the construction phase only.
- 6.5.14 During the construction phase, construction activity including minor demolition works, the use of tall plant, vehicle movements and material storage would be visible from the surrounding area, to some degree where not obstructed by existing industrial structures, earth bunding or mature tree belts along the main roads. Construction activities would appear as new elements within the existing views. However, due to the finished height of the proposed development, and the existing presence of heavy goods vehicles related to the current neighbouring use as a bulk terminal and operational movement of waste delivery vehicles, potential visual effects would mostly be comparable to those of the completed operational phases of the development. Where there would be the potential for an increased change of potential visual effects, such as movement on the skyline of taller plant compared to a finished structure, then these effects would be temporary whereas the operational phase effects would be long term and permanent. Predicted effects on visual receptors are therefore, assessed within the operational effects section.
- 6.5.15 The effects on views from the 16 identified representative viewpoint locations during construction are considered to be comparable to those during operation and are described below and within

Table 6.14. The locations of the viewpoints are shown on Figure 6.3, with viewpoint photography shown on Figures 6.5 A-P

- 6.5.16 There would be a slight increase on potential effects during construction on representative viewpoint 7 - West Coatham Lane / International East Gate Bus Stop, compared to during operation, due to the inclusion of the vehicular access to the Application Site within the view. There is substantial existing filtering provided by the existing vegetation and bunding to the operational built elements of the Application Site within the baseline view. As such, there would be only slightly more temporary disturbance to the view due to construction traffic within this view. Given the nature of the proposed development and haulage deliveries of waste, which would also continue during the operational phase, the expected impact upon this view of low sensitivity is not considered to be significant during construction.

Further Mitigation

- 6.5.17 No further mitigation is proposed.

Future Monitoring

- 6.5.18 Landscape management would be required for a period of five years following completion of the proposed development to ensure that the newly planted and seeded areas become well established and meet their landscape potential. Management would include the replacement of dead, dying or damaged stock or those that fail to establish satisfactorily. Pruning that would be beneficial for plant growth, form and plant health would be promoted.

6.6 Assessment of Operational Effects

- 6.6.1 This section considers the landscape and visual effects of the operational phase of the proposed development during the operational phase at Winter Year 1 and Summer Year 15.
- 6.6.2 As already detailed, the Application Site is part of the former Teesside Steelworks and Redcar Bulk Terminal, containing obsolete buildings, areas of hard-standing and disturbed/contaminated ground, with areas of material storage conveying an overall sense of neglect and disuse. The overall condition of the Application Site is poor.
- 6.6.3 The proposals would include the provision of new, large scale, high quality buildings with a finished height at the highest point of up to 50 metres above existing ground level (AGL) and stacks at 80-90 metres AGL. The introduction of the proposed energy centre would create a distinguishable new element within the existing industrial setting of the study area. Some limited existing on-site ruderal vegetation would be removed to allow for the proposed development. The perimeter security fence would be retained where possible, and the proposed development would also include a new 5 metre concrete wall along its north eastern and north western boundaries around the IBA recycling area. New native shrub mix, meadow/grassland, swaths of marram grassland amenity planting are proposed, replicating flora present in the dune system margin to the north.
- 6.6.4 A landscape strategy has been developed and the Illustrative Landscape Masterplan is shown on Figure 6.9. The use of native shrubs and grassland would help provide a link with the existing perimeter coastal environment and help to maintain a buffer between the adjacent Teesmouth and Cleveland Coast SSSI. The low-level planting would provide softening and limited screening to the lower levels of the building and walls within views from the local area once established. External spaces around the car parking and office spaces would be of good quality landscape design in terms of types of native specimen trees and ornamental planting and the use of hard materials.

Potential Landscape Effects

- 6.6.5 The likely effects on the landscape and townscape fabric and character during the operational phase at winter Year 1 are set out in Table 6.13 and described below. The effects at summer year 15 are considered comparable within the non-directly affected landscapes. There would be a small reduction in potential effects upon those areas in which the proposed development directly affects by summer year 15 due to the landscape planting reaching its design intention, but this is still not considered substantial enough to change the year 1 considerations.

Site and Immediate Surrounds

- 6.6.6 Given the Application Site location within the existing industrial setting to the River Tees, the introduction of a large scale energy centre within this location would not be out of character or unusual within the immediate townscape context.
- 6.6.7 The proposed development would be located in an area that does not exhibit many positive landscape characteristics and is considered to have negligible sensitivity to the type of development proposed and due to the significant existing presence of landscape detractors, the site has a high tolerance to the change proposed. There would be some very limited removal of low-quality ruderal vegetation, along with landform alterations, to allow for the new buildings of a much larger scale than the existing buildings on the Application Site itself, but in keeping with the general building scale and massing of its immediate setting.
- 6.6.8 The high quality, structural design of the proposed development would assist in breaking up the mass of the new buildings within the local area as well as within the wider urban and neighbouring coastal environment. Areas of new landscape treatment include large areas of proposed coastal grassland, swaths of marram grass, areas of tussock grass and irregular blocks of native shrubs. Some amenity planting associated with front of house, operational sections of the building and car parks would provide further sense of place, those would not fully achieve its design function by winter year 1.
- 6.6.9 Notwithstanding the scale of the proposed building and infrastructure and taking into consideration the localised improvements offered by the clearance of the neglected areas and restricted areas of new landscape, the magnitude of impact would be low and an overall **negligible adverse** during winter year 1 of the operation. This is not considered significant in terms of the methodology.
- 6.6.10 By summer year 15, the new planting proposals associated with the proposed development would have matured to provide the intended ecological, amenity and restricted screening value and offer some isolated beneficial effects. However, due to the large scale of the industrial buildings and infrastructure persisting within the site, the overall significance of effect upon the Application Site character would remain as **negligible adverse**.

District Level Landscape / Townscape Character

Direct Effects

- 6.6.11 There would be permanent, direct effects upon Redcar Industrial Townscape Tract (RPS 2020) during the operational phase. The dominant industrial nature of this townscape results in this area being considered to be of negligible sensitivity to the type and scale of development where it is able to accommodate the proposed development without the loss or alteration to its key characteristics. As with the construction effects, the proposed development would introduce a new stack and buildings of considerable scale into this townscape. The addition of this element would not compromise the inherent characteristics of this industrial townscape tract though there would be a slight loss of brownfield land which is presently partially open between the Redcar Bulk

Terminal and the former Teesside Steel Works. Proposed planting would only be experienced within the areas of the tract in the immediate vicinity.

- 6.6.12 There would be direct effects upon this townscape tract due to the proposals. Overall, it is considered that the proposed development would cause a negligible magnitude of impact to the character of Redcar Industrial Townscape Tract, resulting in a **negligible adverse** significance of effect during operation at winter year 1 and summer year 15. This is not considered to be significant.

Indirect Effects

- 6.6.13 There would be potential indirect effects during the operational phase upon the character of Redcar Residential Townscape Tract (RPS 2020), Redcar Flats Landscape Tract, Eston Hills Landscape Tract, East Billingham to Teesmouth Landscape Character Area Estuarine Landscape Type and Coastal Fringe Landscape Type, where they fall within the ZTV.
- 6.6.14 The addition the proposed development perceptually from within these areas would on the most part result in no loss or alteration to the key characteristics of the receiving landscape/townscape. Where the proposed development change would be experienced from these townscapes/landscapes, it would be seen within the industrial backdrop or context. As such, the introduction of the proposed development experienced indirectly, would not be uncharacteristic to the surrounding townscape/ landscape due to the prevalence of the industrial setting to each of these character areas.
- 6.6.15 Overall there would be the potential for negligible / negligible to no change magnitude of impact upon these receptors of medium and low sensitivity due to the proposed development, resulting in a **negligible adverse / no change** significance of effect.
- 6.6.16 Beyond 5km, the potential for effects due to the operational phase upon the inherent characteristics of the receiving landscape/ townscape would be barely noticeable and considered to be **no change**.

National Landscape Character

- 6.6.17 The Application Site would directly affect a very small part of the NCA 23: Tees Lowlands within that part of the NCA currently within industrial use. There would be very little change to the inherent characteristics of this NCA. There would be a negligible magnitude of impact to the character area. Therefore, there would be no more than a **negligible adverse** significance of effect. There would be some isolated beneficial effects due to the proposed landscape strategy (see Figure 6.9) by summer year 15, but the overall significance would remain at **negligible adverse**.

Potential Visual Effects

- 6.6.18 From most viewpoint locations, the existing industrial buildings within the adjacent former Teesside Steel Works are prominent or visible within the baseline views towards the site. The introduction of further built development of a similar 'industrial nature', although relatively large scale, would not be uncharacteristic or at odds with the adjoining townscape or components of the available views within the study area. In many instances, therefore, the proposed development would appear in-keeping with the existing Redcar industrial area along the southern banks of the River Tees. Therefore, although the scale of the proposed development is large, the overall perceived level of change is considered to be relatively low, due to the existing industrial and urbanised context into which the proposed energy centre building and stacks would be located.

6.6.19 The effects on views from the 16 identified representative viewpoint locations are described below and within Table 6.14. The locations of the viewpoints are shown on Figure 6.3, with viewpoint photography and photomontages shown on Figures 6.5 and 6.6 respectively. Potential effects upon the visual resource during the operational phase of the proposed development includes an assessment at winter year 1 (a worst case) and at summer year 15, when proposed planting would have achieved its design and mitigation functions. However, given the local environment, substantial screening vegetation is not deemed appropriate for the Application Site's setting and so there would be limited change between winter year 1 and summer year 15 during operation. Where existing intervening vegetation would have likely further matured to better screen the proposed development, this has been noted, otherwise the winter and summer assessments upon the visual resource are considered to remain the same.

Representative Viewpoints – Close Range Views

6.6.20 The two close range views feature from Teesdale Way and from within Saltholme Nature Reserve Bran Sands and are both within the England Coast Path Coastal Margin. Given the proximity to the proposed development to these receptors and the scale of the proposed buildings, any change experienced due to the proposed development would be most prominent from these receptors. Although proposals would introduce a modern large-scale, industrial building into these close-range views, there is a prominent existing industrial nature, features and setting to the predevelopment view.

VP1 - Teesdale Way / England Coast Path Coastal Margin (Medium Sensitivity)

6.6.21 This represents the closest, most open view towards the Application Site from the Teesdale Way. The stretch of this PRoW closest to the Application Site, is located on a tarmacked unnamed road and therefore, receptors at this point could experience the view in transit within a vehicle or walking. Those receptors walking would be considered of higher sensitivity and as such, for the assessment of effects during operation, the higher level of sensitivity has been used.

6.6.22 The buildings introduced would bring industrial development closer within the view to the receptor and would partially obstruct available views towards the former steel works structures and channelled views towards Eston Nab. The proposals would introduce a modern industrial building into the view. The stack would introduce another vertical element within the view where existing stacks are already present. The overall nature of the view would remain as with the pre-development view, essentially industrial in context with a foreground of tussock grass and reed beds.

6.6.23 Change may be prominent but would not substantially alter scale and character of the surroundings and the wider setting. There would be a medium magnitude of impact upon this receptor of medium sensitivity, resulting in a **moderate adverse** significance of effect at winter year 1.

6.6.24 By summer year 15, proposed landscaping would have reached its design function and add some visual amenity to the view, but the overall significance would remain at **moderate adverse** due to the close range to the proposed development and its obstruction to the view. The effects are not considered significant. For those receptors within transit at this viewpoint, the overall significance of effect would be slightly reduced given the more transient nature of the view.

VP2 - Saltholme Nature Reserve Bran Sands (Medium Sensitivity)

6.6.25 Saltholme Nature Reserve at Brans Sands is the closest public access to the Application Site. Receptors here are likely to utilise the beach for amenity and to engage in leisure activities such as water sports, not for scenic value.

- 6.6.26 Similarly, to Viewpoint 1, the proposed development within this close-range view would cause partial obstruction to the existing industrial structures and would bring development closer to the receptor within the view, becoming the dominant modern built element within the view. The proposals would introduce a large-scale modern industrial building. The stack would introduce another vertical element within the view, although stacks are already prominent within the pre-development view. The character of the view would alter slightly due to the increased obstruction and scale of the proposals within the foreground to the view which would result in a noticeable change. The magnitude of impact upon this view would be medium upon this receptor of medium sensitivity, resulting in a **moderate adverse** significance of effect at winter year 1.
- 6.6.27 By summer year 15, the proposed landscape strategy (see Figure 6.9) would have reached its design function and add some visual amenity to the view, but the overall significance would remain at **moderate adverse** due to the close range to the proposed development and its obstruction to the view. The effects are not considered significant.

Representative Viewpoints – Medium Range Views

- 6.6.28 The existing industrial nature of the Application Site location is apparent within all medium range representative views selected for this assessment. Within the local area, where views towards the Application Site are available, the existing industrial context on both sides of the River Tees features. As such, the nature of these views is inherently industrialised by the scale of the existing land-use along the banks of the River Tees. Taking this into account, the magnitude of impact reduces at greater distances to the Application Site because, although there would still be some minor obstruction to the views and the introduction of a new element may be noticed, the overall composition of the views would be similar to the pre-change circumstances or would only represent a very slight change to the baseline.
- 6.6.29 The medium range views have been grouped here by type of receptor and also overall significance of effect.

VP3 - South Gare Breakwater Viewpoint / Teesdale Way (Medium Sensitivity), VP4 - England Coast Path / Cleveland Golf Course, VP8 - England Coastal Path Coastal Margin (at Bench and Information Sign) and VP9 - England Coast Path at residential edge of Seaton Carew (High Sensitivity)

- 6.6.30 VP3, VP4, VP8 and VP9 represent views from the local PRoW network and are also all within the England Coast Path Coastal Margin. VP4 and VP9 are located on the England Coast Path. From within all four of these medium range views, the proposed development would break the skyline to the view and would cause some limited obstruction, introducing a new large-scale building and stack within the industrial context of the views.
- 6.6.31 Within the view from VP3, VP8 and VP9 the main bulk of the building would cause some limited obstruction to the landscape behind the industrial setting at Eston Nab and hills beyond within the backdrop to the view. The proposals would also provide some screening to the existing structures within the former Teesside Steel Works. Within VP4, the proposed development would fall behind the existing industrial structures within the view and so would be partially screened, but the stack would and some of the building mass would be discernible within the industrial part of the baseline view from the England Coast Path.
- 6.6.32 Overall, there would be a minor change to the pre-development view, where change would be distinguishable from the surroundings whilst composition and character would be similar to the pre-change circumstances. There would be a low magnitude of impact and a **minor adverse** significance of effect upon the views from these four medium range views.

- 6.6.33 At summer year 15, the significance of effect would remain as that described for winter year 1 upon these views.

VP5 - Marsh Farm / England Coast Path (High Sensitivity)

- 6.6.34 The view from the setting to Marsh Farm Grade II Listed Building and England Coast Path where it enters Cleveland Golf Course would be very restricted. There would be oblique upper floor views from within the property at Marsh Farm towards the proposed development, with structures within the grounds to the house restricting ground floor views.
- 6.6.35 The proposed development would be mostly screened by existing structures within the former Teesside Steel Works and land bunding between the unnamed road to South Gare Breakwater and the golf course. The top of the proposed stack within the proposed development would be visible within the context of the existing structures. The change to the view would be distinguishable but the overall composition of the view would be similar to the pre-change circumstances. There would be a low magnitude of impact upon this receptor of high sensitivity, resulting in a **minor adverse** significance of effect at winter year 1.
- 6.6.36 At summer year 15, the significance of effect would remain as that described for winter year 1 upon these views.

VP6 - Dormanstown Recreation Ground / Charlton Road (Medium Sensitivity)

- 6.6.37 VP6 is the view from the recreational ground within Dormanstown, which also represents views from properties adjoining the recreation ground along Charlton Road, Mclean Avenue and Dorman Crescent. The existing strategic vegetation along Trunk Road would heavily filter available views towards the energy recovery building of the proposed development during winter from this receptor, but the stack would be discernible over the existing tree belt. Filtered views towards existing former Teesside Steel Works and Steel House, with stacks over the existing vegetation, are built elements within the pre-development view. The proposed development would cause a very slight change to the baseline, but the composition of the view would remain mostly unaltered. There would be a negligible magnitude of impact and a **negligible adverse** significance of effect upon the winter view. The existing tree belt within the view would greatly restrict available views to the proposed development by summer year 15, with only views to the stack remaining and seen within the context of the existing stacks within the pre-development view.
- 6.6.38 The significance of effect would reduce to **no change**, due to there being very little to no alteration to the existing view by summer year 15.

VP7 - West Coatham Lane / International East Gate Bus Stop (Low Sensitivity)

- 6.6.39 This view represents those travelling by vehicle and so would be experienced fleetingly, or by those using the bus stop; the sensitivity is considered to be low for this receptor.
- 6.6.40 Much of the proposed development would be screened within the view from this receptor of low sensitivity. The majority of the proposed development would be screened by the existing bunding, wintertime vegetation and other built elements within the view. The proposed stack would just break the skyline to the view. Given the existing built structures and industrial context within the view, the screening provided by the intervening vegetation, and the transient nature of this view, the proposed changes would have a barely noticeable effect on views and the visual amenity. There would be a Negligible magnitude of impact and a **negligible adverse** significance of effect upon the view from this receptor at winter year 1.
- 6.6.41 This would reduce to a **no change** significance by summer year 15 due to intervening vegetation further reducing the awareness of any alteration to the existing view.

Representative Viewpoints – Long Range Views

- 6.6.42 Long range views have been included as part of this assessment due to the height of the proposed stack at 80-90 metres AGL. Even the furthest reaching views within the 25km study area still experience the industrial context of the Tees Estuary. Between 5 – 10km, such as VP10, VP11, VP12 and VP13, there would be a negligible magnitude of impact due to the very slight change in baseline, whereby change would be barely distinguishable from the surroundings, and composition of the view would remain substantially unaltered. However, beyond 10km from the Application Site, the ability to distinguish the proposed development within this industrial context becomes more difficult and as such the magnitude of impact reduces to no change, with the proposed development going unnoticed within the longest reaching views.

VP10 - England Coast Path / Access to Seaton Reach Beach (High Sensitivity) and VP12 - Eston Nab Edge at Flag Pole (High Sensitivity)

- 6.6.43 There would be a long range, open views over Seaton Reach and the sea, and from the elevated position at Eston Nab towards the proposed development. These receptors are both considered to be of a high sensitivity given their location on a National Trail and from local viewpoints within a historic landscape. The stack would break the skyline and the buildings would cause some limited obstruction to the view. From within views from both these viewpoints, the proposed development would be set within the industrial context to the view. Change would be just perceptible within the view but seen within the context of existing industrial buildings of similar scale and context. Overall, there would be a negligible magnitude of impact, resulting in a **minor adverse** significance of effect at winter year 1 and summer year 15.

VP11 - Cowpen Bewley Woodland Park Viewpoint and VP13 - Hartlepool / Pilot Pier (Medium Sensitivity)

- 6.6.44 There would-be long-range views towards the proposed development, but potential changes would be seen within an industrial setting of the pre-development view and so change would likely go mostly unnoticed from these views from medium sensitivity receptors. There would be a negligible magnitude of impact and a **negligible adverse** significance of effect at winter year 1 and summer year 15.

VVP14: Warsett Hill Trig Point (High Sensitivity), VP15: PRoW off A171 / Stanghow Moor (North York Moors National Park) (High Sensitivity) and VP16: Cleveland Way Viewpoint (North York Moors National Park) (High Sensitivity)

- 6.6.45 From these three long range, elevated views, the Application Site would be experienced at such a distance and within the existing industrial context of the view, that any change due to the proposed development would be imperceptible. There would be **no change** upon the existing view.

Residential Receptors (High Sensitivity)

- 6.6.46 The proposed development would be discernible within available views from residential receptors within the study area. Those anticipated by the representative viewpoints and contextual views are Marsh Farm (VP5), Dormanstown (VP6), (CV6), Seaton Carew (VP9), (VP10) and Hartlepool (VP13).
- 6.6.47 It is considered that due to the scale and height of the proposed development, it would be potentially visible within residential views within the study area, although would in some cases be partly restricted by existing strategic vegetation along the truck roads or by existing industrial development within the baseline view. In all cases of available residential views towards the proposed development, the new built elements would be seen within the existing Teesside

industrial setting. The potential effects upon any available residential views towards the proposed development would not be considered significant. Effects are considered to be **minor adverse** at worst.

Public Rights of Way (High Sensitivity)

- 6.6.48 The proposed development would be discernible within available views from PRow within the study area. Many of these PRow were walked during the field survey and the most open views available from along the route selected as a Representative Viewpoint or a contextual view taken, as follows; Teesdale Way (VP 1), (VP3), (CV2), England Coast Path / Coastal Path Margin (VP4), (VP5), (VP8), (VP9), (VP10), (CV1), (CV4), (CT5), Cowpen Bewley WP (VP11), National Trust – Warsett Hill (VP14) and Eston Nab (VP12) (CV7).
- 6.6.49 Within the nearest points of the PRow to the proposed development on the Teesdale Way and England Coast Path, there would be some obstruction to available views when travelling along these footpaths. There would be a maximum significance of **moderate adverse** within the nearest location to the proposals where the obstruction would be its most noticeable. Elsewhere along these two paths though, the proposed development would be barely noticeable and in overall keeping within the industrial pre-development view. The potential effects on PRow within the study area are not considered significant and would be localised.

Further Mitigation

- 6.6.50 The project incorporates an indicative landscape strategy (see Figure 6.9) that is included as an integral part of the design (Figure 6.9) and would be implemented as part of the proposals. No additional mitigation requirement has been identified.

Future Monitoring

- 6.6.51 Landscape management would be required for a period of five years following completion of the proposed development to ensure that the newly planted and seeded areas become well established and meet their landscape potential. Management would include the replacement of dead, dying or damaged stock or those that fail to establish satisfactorily. Pruning that would be beneficial for plant growth, form and plant health would be promoted.

Accidents/Disasters

- 6.6.52 With respect to landscape and visual matters, potential accidents/disasters relevant to the proposed development are unlikely. There is a potential risk of introduced diseases affecting vegetation, for example Ash dieback. As a precautionary measure Ash would not be specified within proposed planting mixes.

Potential Changes to the Assessment as a Result of Climate Change

- 6.6.53 Taking into account the information identified in the future baseline section, any future climatic changes are unlikely to change the landscape and visual assessment for the proposed development. If appropriate landscape management in the form of additional or alternative planting and further management of the areas within the immediate local context of the Application Site are implemented, any landscape and visual effects are likely to be marginally less than the levels reported in this chapter.

6.6.54 The illustrative landscape masterplan utilises site appropriate species and incorporates climate change considerations, such as drought tolerance, in the species selection for the design (see Figure 6.9). This can be further developed at the detailed design stage.

6.7 Assessment of Decommissioning Effects

- 6.7.1 Predicted effects upon the landscape and visual resource during the decommissioning of the proposed development would be equivalent to those experienced during construction for the duration of the phase, with the minor exception of the proposed vegetation having reached maturity which would offer some limited screening of low level works within the localised views. The decommissioning of the proposed development is not anticipated to cause any significant effects upon the landscape or views.
- 6.7.2 Assuming the proposed development is fully removed and the Application Site restored to cleared ground this would open up the local views to the surrounding industrial area as developed over the operational duration of the Redcar Energy Centre. Where appropriate, planting and grassland could be retained and protected during demolition.
- 6.7.3 There would be no significant effects upon the landscape/townscape or visual resource during decommissioning.

6.8 Assessment of Cumulative Effects

6.8.1 The assessment of cumulative effects considers the impacts associated with the proposed development together with other projects. The significance of cumulative effects on the existing landscape and townscape character and visual resources of the proposed development with other schemes that are allocated, consented or for which planning permissions are currently being sought (illustrated in Appendix 4.2 of this ES) within a 5 km radius of the proposed development has been assessed. The list of projects included in the cumulative assessment are set out in Table 6.10 which includes one project outside the 5 km zone because it is of a similar use and scale as the proposed development. Only those impacts where the assessment of the proposed development has concluded an effect above negligible have been considered in the cumulative assessment.

Table 6.10: Cumulative Developments considered in the Assessment of Effects on Landscape and Visual Resource

Ref	Cumulative development	Distance from the site	Potential effects
Tier 1 (consented or decision pending)			
1	<p>Ground preparation for soil storage. Demolition of structures and engineering operations associated with ground preparation and soil storage as remediation of land (x3 sites). R/2019/4027/FFM Granted 27/09/19</p>	1.96 km	<p>Within Redcar Industrial character area. Low level operation potentially visible from Teesdale way.</p>
2	<p>Kirkleatham Lane Residential development of up to 500 units, with associated access, landscape and open space. R/2016/0663/OOM Granted 25/05/17</p>	3.97 km	<p>Within Redcar Residential character area. Residential receptors introduced to urban area not distinguishable from selected viewpoints.</p>

Ref	Cumulative development	Distance from the site	Potential effects
	<p>Reserved Matters application (appearance, landscaping, layout and scale) following approval of outline planning permission R/2016/0663/OOM for up to 550 residential units with associated landscaping.</p> <p>R/2019/0485/RMM</p>		
3	<p>Tees Renewable Energy Plant Construction of a 300Mw biomass fired renewable energy power station. R/2008/0671/EA (R/2008/0671/EA/CD) Granted 15/07/09 (29/06/12)</p>	2.62 km	<p>Within Redcar Industrial character area.</p> <p>Large scale development not viewed in combination with proposal in selected viewpoints.</p>
4	<p>Teesside Combined Cycle Power Plant Construction of a 1,700MWe combined-cycle gas turbine power station. R/2017/0119/DCO DCO made 05/04/19</p>	5.18 km	<p>Beyond 5 km and within Redcar Industrial character area.</p> <p>Closest cumulative development to Eston Hills viewed in combination with proposal and other development as part of industrial/urban fabric.</p>
5	<p>Northern Gateway Container Terminal Container terminal at Teesport, Grangetown. R/2006/0433/OO Granted 04/10/07</p>	1.29 km	<p>Within Redcar Industrial character area.</p> <p>Container terminal integrated with other port operations and viewed in combination with proposal particularly from north Teessmouth.</p>
6	<p>Peak African Minerals Ltd Refinery extracting rare earth minerals from the ore concentrates. R/2017/0876/FFM Granted 16/01/18</p>	4.78 km	<p>Within Redcar Industrial character area.</p> <p>Refinery integrated with port facilities and operations and viewed in combination with proposal particularly from north Teessmouth.</p>
7	<p>York Potash Port and Materials Handling Facilities Port facility on Teesside for the export of polyhalite bulk fertiliser TR03002 DCO made 20/07/16</p> <p>R/2014/0626/FFM R/2014/0627/FFM R/2017/0906/OOM R/2018/0139/VC</p>	681 m	<p>Within Redcar Industrial character area.</p> <p>Port facility integrated with other operations and viewed in combination with proposal particularly from north Teessmouth.</p>
8	<p>Grangetown Prairie Energy Recovery Facility Outline consent for an energy recovery facility and associated development. R/2019/0767/OOM Application submitted 19/12/19</p>	4.34 km	<p>Within Redcar Industrial character area.</p> <p>Facility not viewed in combination with proposal apart from views at Eston Hills.</p>
9	<p>New buildings, plant upgrade, swale and parking Erection of new plant, new buildings and extensions to existing buildings including warehouse and workshop. 19/2161/FUL Granted 21/02/20</p>	2.54 km	<p>Within East Billingham to Teessmouth landscape character area.</p> <p>Facility not viewed in combination with proposal from selected viewpoints.</p>

Ref	Cumulative development	Distance from the site	Potential effects
10	<p>Graythorp Energy Centre Energy recovery (energy from waste) facility and associated infrastructure. H/2019/0275 Decision pending</p>	4.36 km	<p>Within Hartlepool Industrial character area. Facility not viewed in combination with proposal from selected viewpoints.</p>
11	<p>Regency Cinema Demolition of existing cinema and replace with new cinema including external terraces; landscaping and temporary sea wall. R/2020/0075/F3M Decision pending</p>	4.16km	<p>Coastal location within Redcar Residential character area. Proposal introduced to urban area and not seen in combination with proposed development. Not distinguishable from selected viewpoints.</p>
12	<p>Land off John Boyle Road Erection of a soil and aggregates recycling and washing plant facility including welfare cabin and associated car parking and landscaping. R/2020/0223/FF Application submitted 04/05/20</p>	4.63 km	<p>Within Redcar Industrial character area. Low level facilities not viewed in combination with proposed development or distinguishable from selected viewpoints.</p>
13	<p>Westfield Barn Demolition of vacant agricultural buildings and replace with 3 blocks of 2 storey modular buildings comprising 20 residential units, office and energy centre including associated car parking, boundary fencing and gates and communal landscaping. R/2020/0100/FFM Application submitted 21/04/20</p>	3.22 km	<p>Within Redcar Residential character area. Residential receptors introduced to urban area. Not viewed in combination with proposed development or distinguishable from selected viewpoints.</p>
Tier 2 (in scoping)			
14	<p>Able South Bank Port based development for the Offshore Marine Energy Sector. Use of port for transporting, storing and assembling components of offshore wind turbines. R/2019/0331/SCP Scoping opinion issued 27/06/19</p>	3.51 km	<p>Within Redcar Industrial character area. Facility not viewed in combination with proposal from selected viewpoints.</p>
15	<p>Tees Cluster Carbon Capture and Usage Proposal that comprises the development of a Combined Cycle Gas Turbine gas-fired generating station and gas, electricity and cooling water connections and a CO₂ pipeline to an offshore geological storage area. https://infrastructure.planninginspectorate.gov.uk/projects/north-east/the-net-zero-teesside-project/?ipcsection=docs Scoping direction issued 17/01/20</p>	951 m	<p>Within Redcar Industrial character area. Proposal seen in combination from Teesdale Way and sequentially with proposed development.</p>
Tier 3 (allocated)			
16	<p>H3.11 St Hilda's Church Residential allocation for 25 units</p>	4.39 km	<p>Within Redcar Residential. Residential receptors introduced to urban area not distinguishable from selected viewpoints.</p>
17	<p>EG1 Teesside</p>	1.64 km	<p>Within Hartlepool Industrial character area. Employment allocation not viewed in combination with</p>

Ref	Cumulative development	Distance from the site	Potential effects
	General employment allocation focusing on logistics (B8 Use Class), manufacturing and engineering (B2 Use Class)		proposal from selected viewpoints.

Cumulative Landscape and Townscape Effects

- 6.8.2 Of the seventeen consented, in planning or allocated sites identified, sixteen occur within a 5 km radius of the Application Site which have been considered as part of the cumulative assessment. Eleven sites occur within the same Redcar Industrial Townscape Tract as the proposed development. These include a biomass power station and a combined cycle power plant (just beyond 5 km) that would be of a similar scale and use as the proposed development together with other industrial type proposals. If developed, these sites would intensify the built form within the industrial character area of Redcar, however the intrinsic character and qualities of the area would remain the same. The scale of these developments could be accommodated within the existing industrial landscape of Teesside. However, it is possible that the construction phases of some of these other developments could overlap with that of the proposed development, resulting in temporary cumulative effects on townscape character. Permanent effects on this industrial townscape could also occur as a result of the cumulative effect of these developments together with the proposed development. The proposed development would make a minor contribution to the cumulative effect and the industrial context would be maintained. Although the specific land use and character of parts of the industrial area of Redcar would alter as a result of these other developments, the overall industrial character of Redcar would remain intact and not be extended. It is not considered that the proposed development would contribute to any significant adverse cumulative effect on the industrial townscape/landscape of Redcar.
- 6.8.3 Other planning applications or approved developments include residential development sites identified within the Redcar residential area. The largest of these is a site west of Kirkleatham Lane which would extend the urban form of Redcar. Two other residential sites are small scale and would be general infill to the residential urban form and would not result in any significant cumulative effects on townscape character. Redevelopment of the cinema adjacent to the shore at Redcar would be a beneficial effect on the townscape taking into consideration the modern design and landscape treatment and exert no significant cumulative effect in conjunction with the proposed development.
- 6.8.4 Overall it is considered that cumulative effects on landscape/townscape character within the Redcar urban area has the capacity to absorb the proposed further developments and that the character of the Redcar Industrial and Redcar Residential areas would remain intact. Depending on the quality of other new development, there is some potential for a beneficial cumulative effect in the long term as well designed industrial changes occur within the industrial area of Redcar. It is not considered that the proposed development would contribute to any significant adverse cumulative effect on the industrial or urban landscape of Redcar.

Cumulative Visual Effects

- 6.8.5 Cumulative visual effects are the effects on views and visual amenity enjoyed by people. No combined cumulative visual effects are identified from close (less than 1 km) residential receptors as a result of additional effects or combined effect of the proposed development with the cumulative schemes. Any cumulative effects in view for residential receptors of medium distance (1 to 5 km) would be barely distinguishable in the industrial and urban context and therefore not significant.

- 6.8.6 People walking along Teesdale Way or Coatham Sands coastal margin would potentially experience a cumulative effect. An observer would see the proposed development in combination with the Tees Cluster Carbon Capture facility from South Gare Breakwater (VP3) as part of a cluster of existing industrial installations. The proposal becomes more prominent as approached in the cumulative situation (VP 2 and VP1). Further along the route the Tees Cluster Carbon Capture facility would become prominent (VP 4 and VP5), and an area of remediation and ground preparation work would be visible and contribute to the cumulative effects in these views adjacent to industry. For visual receptors this would be considered as cumulative effect because the observer would be moving slowly, and given the distance between views within an industrial context, the type of views would be expected adjacent to the industrial area. The scale and nature of the cumulative schemes and the proposed development would not change the character and nature of the views at VPs 1 to 4. The cumulative visual effect at these close locations would be an intensification of built form in existing industrial views that are not considered to be significant in the context of the industrial area.
- 6.8.7 From locations at the north side of Teesmouth a cumulative effect would be observed by people using the England Coast Path. Cumulative visual effects would be apparent when approaching in a southerly direction along the route. From locations of VPs 8, 9 and 10 the proposed development would be visible closer to the viewer and in combination with Tees Cluster Carbon Capture facility and part of the existing industrial installations visible on a distant peninsular. The existing context of industrial views would be maintained and other cumulative impacts including port facilities at Northern Gateway Container Terminal and York Potash Handling Facility would be assimilated in the view. The scale and nature of the cumulative schemes and the proposed development would not change the character and nature of the views from north Teesmouth. The cumulative visual effect at these locations is not considered significant in the context of the industrial nature of the distant view.
- 6.8.8 From the elevated location of the Eston Hills (VP 12) the proposed industrial and housing developments would be viewed in combination with the proposed development. The Teesside Combined Cycle Power Plant would be introduced closest to the viewpoint but together with other cumulative schemes considered as part of this assessment, would be viewed in combination and integrate with the extensive industrial fabric of Teesmouth that extends across the view. The cumulative visual effect at this location is not considered significant in the context of the industrial nature of the view.
- 6.8.9 With respect to visual effects, the proposed new residential housing development in the area would be low level but would introduce some new visual receptors into the area. These new residential receptors would be of the same degree of sensitivity as the residents of existing housing areas distant from the proposal.
- 6.8.10 In conclusion, it is considered that the Redcar Industrial Townscape Tract has the capacity to absorb the cumulative schemes, in addition to the Redcar Energy Centre. The overall character of the Redcar industrial area would remain intact. In addition, it is considered that the proposed development would not contribute to any significant cumulative effect on townscape character. During the operational phase the effect of Redcar Energy Centre would integrate with other industrial installations. Depending on the quality of other new built development, there is some potential for a beneficial cumulative effect to the overall industrial character. It is not considered that the proposed development would contribute to any significant adverse cumulative effect.
- 6.8.11 From close viewpoints particularly along the Teesdale Way the scale and nature of the cumulative schemes and the project would not change the character and nature of the views. There would be some sequential effect along the Teesdale Way.
- 6.8.12 From viewpoints further afield Redcar Energy Centre and the cumulative schemes would be viewed in combination as a minor addition to the urban and industrial fabric of Redcar.

- 6.8.13 Overall, the contribution of Redcar Energy Centre to any cumulative effects would be relatively small in the context of and existing industrial urban area and it is not considered that Redcar Energy Centre would contribute to any significant adverse cumulative effect.

6.9 Inter-relationships

- 6.9.1 There are inter-relationship between landscape and visual effects and other topic chapters included within this ES. These include synergies with ecology and nature conservation, and with hydrology and flood risk that have influenced the design.
- 6.9.2 The proposed planting and grassland are designed to provide landscape integration, connectivity and some limited visual screening within and from outside the site. The planting would have a dual function of providing visual interest and assimilation while providing wildlife corridors and continued nature conservation links with adjacent areas of ecological importance.
- 6.9.3 The provision of sustainable drainage features has also been considered as part of the landscape design in order to provide mitigation where possible within the project.
- 6.9.4 Further details are provided in Chapters 7: Ecology and Chapter 8: Hydrology and Flood Risk of this ES.

6.10 Summary of Effects

- 6.10.1 The proposed development would introduce a large-scale energy centre within an area of land immediately adjoining the former Teesside Steel Works and existing Redcar Bulk Terminal within Redcar.
- 6.10.2 The Application Site sits within an existing industrial location with existing stacks and buildings of comparable scale within the local areas (2 km radius). Given this existing industrial local character, there are not anticipated to be significant effects upon the local landscape character due to the development of the REC itself.
- 6.10.3 In terms of views, it is anticipated that a building of this scale would cause some localised obstruction to near views but given the existing baseline industrial context to the view, this would not be considered significant. However, the nature of views, beyond the immediate vicinity, would be highly industrial in nature given the existing neighbouring land-use of the estuary. Views are often interrupted by vertical elements of chimneys, pylons and turbines.
- 6.10.4 Although the proposed stack height of 80-90 metres (as shown on the ZTV) may theoretically be visible over greater distances, in periods of excellent visibility, it is considered that the potential effects upon these longer distance views would not be significant due to the existing industrial elements and context to the baseline views.
- 6.10.5 Overall, the quality and character of the landscape/townscape and visual resources would be maintained and would have the capacity to accommodate the proposed development without significant effects. Potential cumulative effects would be relatively small in the context of an existing industrial urban area and it is not considered that the proposed development would contribute to any significant adverse cumulative effect.

6.11 References

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Table 6.13: Summary of Likely Environmental Effects on Landscape Resource

Receptor	Sensitivity of receptor	Description of impact	Duration	Magnitude of impact	Significance of effect	Significant / Not significant
Construction						
Site Level Application Site	Negligible	Direct effects; demolition and clearance operations within site previously in use for industrial purposes. Some minimal loss of vegetation and regrading of landform. New planting would be implemented but little effect during this phase. Movement of onsite vehicles. Presence of tall plant including cranes which are not present within the baseline.	Temporary	Medium	Minor Adverse	Not Significant
District Level Redcar Industrial Townscape Tract (RPS 2020)	Negligible	Direct effects: as above but experienced within the wider industrial townscape. There would be a minor change in baseline through the construction of the proposals and introduction of elements that are not uncharacteristic within the surrounding townscape.	Temporary	Low	Negligible Adverse	Not Significant
Redcar Residential Townscape Tract (RPS 2020)	Medium	Indirect effects: Addition of elements of a transient nature through construction traffic and new tall plant into the views experienced from within this townscape. This introduction would not be uncharacteristic to the surrounding townscape or when experienced within the character area due to the existing industrial setting to the townscape.	Temporary	Negligible	Negligible Adverse	Not Significant
Redcar Flats Landscape Tract	Medium	Indirect effects as preceding entry	Temporary	Negligible	Negligible Adverse	Not Significant

Receptor	Sensitivity of receptor	Description of impact	Duration	Magnitude of impact	Significance of effect	Significant / Not significant
<i>(RCLCA 2006)</i>						
Eston Hills Landscape Tract <i>(RCLCA 2006)</i>	Medium	Indirect effects as above	Temporary	Negligible	Negligible Adverse	Not Significant
East Billingham to Teesmouth Landscape Character Area <i>STLCA (2011)</i>	Low	Indirect effects as above	Temporary	Negligible	Negligible Adverse	Not Significant
Estuarine Landscape Type <i>HLCA (2000)</i>	Low	Indirect effects as above	Temporary	Negligible	Negligible Adverse	Not Significant
Coastal Fringe Landscape Type <i>HLCA (2000)</i>	Low	Indirect effects as above	Temporary	Negligible	Negligible Adverse	Not Significant
<u>National Level</u> NCA 23: 23: Tees Lowlands	Medium	Large scale construction in an area in industrial land-use. Direct effects upon small part of NCA, elsewhere construction activity experienced within the existing industrial context of Redcar.	Temporary	Negligible	Negligible Adverse	Not Significant
Operation and maintenance						
<u>Site Level</u> Application Site	Negligible	Direct effects. Introduction of new large scale built-form and new planting. Beneficial effects due to renewed sense of place of the project site and further by summer year 15 when proposed landscaping reaches its design intention.	Permanent	Low	Negligible Adverse.	Not Significant
<u>District Level</u> Redcar Industrial Townscape Tract <i>(RPS 2020)</i>	Negligible	Direct effects. Lesser in magnitude than during construction when cranes are present and no moving parts at high level.	Permanent	Negligible	Negligible Adverse	Not Significant

Receptor	Sensitivity of receptor	Description of impact	Duration	Magnitude of impact	Significance of effect	Significant / Not significant
Redcar Residential Townscape Tract (RPS 2020)	Medium	Indirect effects; No loss, alteration or addition to the receiving landscape resource.	Permanent	Negligible to No Change	Negligible Adverse	Not Significant
Redcar Flats Landscape Tract (RCLCA 2006)	Medium	Indirect effects; very minor addition through introducing new EfW buildings within close proximity to the LT. The introduction of elements that are not uncharacteristic with the surrounding landscape. Proposed changes would have an indiscernible effect on the character of the overall landscape tract, as introducing a further large-scale industrial buildings within the existing industrial fringe to the area.	Permanent	Negligible	Negligible Adverse	Not Significant
Eston Hills Landscape Tract (RCLCA 2006)	Medium	Indirect effects; No loss, alteration or addition to the receiving landscape resource. Change barely noticeable.	Permanent	Negligible to No Change	Negligible Adverse	Not Significant
East Billingham to Teesmouth Landscape Character Area STLCA (2011)	Low	Indirect effects No loss, alteration or addition to the receiving landscape resource. Change barely noticeable.	Permanent	Negligible to No Change	No Change	Not Significant
Estuarine Landscape Type HLCA (2000)	Low	Indirect effects No loss, alteration or addition to the receiving landscape resource. Change barely noticeable.	Permanent	Negligible to No Change	No Change	Not Significant
Coastal Fringe Landscape Type HLCA (2000)	Low	Indirect effects No loss, alteration or addition to the receiving landscape resource. Change barely noticeable.	Permanent	Negligible to No Change	No Change	Not Significant
National Level NCA 23: 23: Tees Lowlands	Medium	Direct effects; large scale construction in an area in industrial land-use. Direct effects upon small part of NCA, elsewhere construction activity experienced within the existing industrial context of Redcar.	Permanent	Negligible	Negligible Adverse	Not Significant

Receptor	Sensitivity of receptor	Description of impact	Duration	Magnitude of impact	Significance of effect	Significant / Not significant
Decommissioning						
As per construction		While decommissioning is taking place				

Table 6.11: Summary of Likely Environmental Effects on Visual Resource

Receptor	Sensitivity of receptor	Description of impact	Mitigation measure	Magnitude of impact	Significance of effect	Significant / Not significant	Notes
Operation and maintenance (Winter Year 1)							
VP1: Teesdale Way / England Coast Path Coastal Margin	Medium	Close range, open view of large-scale industrial development within existing industrial context. New prominent feature. Some obstruction to view of transient receptor, energy recovery building and stack would feature on the skyline.	Finish and design enable the building to site appropriately within its context and reduce perceived massing.	Medium	Moderate Adverse	Not Significant	
VP2: Saltholme Nature Reserve Bran Sands	Medium	Close range, open view of large-scale industrial development within existing industrial context. New prominent feature. Localised obstruction to view of transient receptor.	As above	Medium	Moderate Adverse	Significant	
VP3: South Gare Breakwater Viewpoint / Teesdale Way	Medium	Medium range, views to large scale industrial development set within an industrial context. Proposals would break skyline and would partly obstruct views to Eston Nab behind	As above	Low	Minor Adverse	Not Significant	
VP4: England Coast Path /	High	Medium range, proposals would sit behind existing industrial	As above	Low	Minor Adverse	Not Significant	

Receptor	Sensitivity of receptor	Description of impact	Mitigation measure	Magnitude of impact	Significance of effect	Significant / Not significant	Notes
Cleveland Golf Course		features within the view. Some minor obstruction and new stack on horizon.					
VP5: Marsh Farm / England Coast Path	High	Medium range, mostly screened view by existing buildings and land bunding. Proposed development would break skyline to the view but would sit behind existing industrial development.	As above	Low	Minor Adverse	Not Significant	Marsh Farm residential views are restricted, oblique upper floor views only.
VP6: Dormantown Recreation Ground / Charlton Road	Medium	Medium range, heavily filtered view. Stack of proposed development would break skyline. Existing industrial elements feature on the skyline filtered by tree belt - change would be Negligible.	As above	Negligible	Negligible Adverse	Not Significant	Reducing to No Change by Summer Year 15, due to further establishment of intervening vegetation.
VP7: West Coatham Lane / International East Gate Bus Stop	Low	Medium range, mostly screened view by existing bunding and vegetation. Stack would just break skyline to view.	As above	Negligible	Negligible Adverse	Not Significant	Greater vehicular movement during operation. Delivery of waste compared to bulk deliveries – Reducing to No Change by Summer Year 15
VP8: England Coast Path Coastal Margin at Bench and Information Sign.	High	Medium range, mostly open view toward proposals. Some obstruction to the view by proposals. Set within industrial context within the view. Proposals would break skyline to the view.	As above	Low	Minor Adverse	Not Significant	
VP9: England Coast Path at residential edge of Seaton Carew	High	Medium range, open view from Coast Path toward proposals over dunes and estuary. Some obstruction to the view by	As above	Low	Minor Adverse	Not Significant	

Receptor	Sensitivity of receptor	Description of impact	Mitigation measure	Magnitude of impact	Significance of effect	Significant / Not significant	Notes
		proposals. Set within industrial context within the view. Proposals would break skyline to the view.					
VP10: England Coast Path / Access to Seaton Reach Beach.	High	Long range, open view toward proposals over Seaton Reach and the sea. Limited obstruction to the view by proposals. Set within industrial context within the view. Proposals would break skyline to the view.	As above	Negligible	Minor Adverse	Not Significant	
VP11: Cowpen Bewley Woodland Park Viewpoint	Medium	Long range, elevated view. Limited obstruction to the view by proposed energy centre but if noticed within the view, it would be seen within an industrial setting	As above	Negligible	Negligible Adverse	Not Significant	By Summer Year 15, intervening woodland vegetation would have further matured, but would unlikely to screen the proposed development.
VP12: Eston Nab Edge at Flag Pole	High	Long range, elevated view from steep edge. Change would be just perceptible within the view but seen within the context of existing industrial buildings of similar scale and context, including Wilton EfW.	As above	Negligible	Minor Adverse	Not Significant	
VP13: Hartlepool / Pilot Pier	Medium	Long range, open view over sea. Change would be just perceptible within the view but seen within the context of existing industrial buildings of similar scale and context.	As above	Negligible	Negligible Adverse	Not Significant	
VP14: Warsett Hill Trig Point	High	Long range, elevated view. Proposals would be experienced at such a distance and within existing industrial context of the	As above	No Change	No Change	Not Significant	

Receptor	Sensitivity of receptor	Description of impact	Mitigation measure	Magnitude of impact	Significance of effect	Significant / Not significant	Notes
		view, that change would be imperceptible.					
VP15: PRoW off A171 / Stanghow Moor (North York Moors National Park).	High	Long range, elevated view. Proposals would be experienced at such a distance and within existing industrial context of the view, that change would be imperceptible.	As above	No Change	No Change	Not Significant	
VP16: Cleveland Way Viewpoint (North York Moors National Park)	High	Long range, elevated view. Proposals would be experienced at such a distance and within existing industrial context of the view, that change would be imperceptible.	As above	No Change	No Change	Not Significant	