

life. The ERLP SD is therefore supportive of energy proposals, subject to specific considerations as set out in the policy.

- 7.6 The overarching National Policy Statement for Energy (EN-1) was published by the Government in July 2011. It sets out national policy for energy infrastructure and confirms energy generation and delivery is vital to economic prosperity and social well-being and so it is important to ensure that the UK has secure and affordable energy, especially during the transition to a low carbon economy. Producing the energy the UK requires and getting it to where it is needed necessitates a significant amount of infrastructure, both large and small scale. It is critical that the UK continues to have secure and reliable supplies of electricity as we make the transition to a low carbon economy. To manage the risks to achieving security of supply the UK needs reliable associated supply chains to meet demand as it arises.
- 7.7 The proposal will allow the transport of electricity between England and Scotland depending on where the need arises. Whilst this proposal will not generate electricity it is part of the infrastructure required to transport it that is supported in principle by the East Riding Local Plan and National Policy Statement for Energy as well as the NPPF and associated PPG subject to detailed consideration below.

Coastal Change Management Area

- 7.8 The landfall area which includes a Horizontal Directional Drill (HDD) under the beach and cliff falls within a Coastal Change Management Area referred to under policy A2 which details with development in the Bridlington Coastal Sub Area and also policy ENV6 which manages environmental hazards.
- 7.9 HDD is a minimal impact trenchless method of installing underground utilities such as pipe, conduit, or cables in a relatively shallow arc or radius along a prescribed underground path using a surface-launched drilling rig. There are significant environmental advantages over traditional cut and cover pipeline/utility installations. The technique is routinely used when conventional trenching or excavating is not practical or when minimal surface disturbance is required such as under the cliff due to the fact surface methods would affect coastal erosion and the stability of the cliff.
- 7.10 Part A to policy ENV6 is clear environmental hazards, such as coastal change, will be managed to ensure development does not result in unacceptable consequences to its users, wider community and the environment.
- 7.11 Part E to policy ENV6 confirms development likely to be affected by coastal change will be proactively managed by designating a Coastal Change Management Area on the Policies Map. Part F1 to policy ENV6 sets out a criteria for assessing new development in the CCMA. Table 11 of the supporting text lists the type of development which will be supported and this includes national significant infrastructure such as pipelines and new underground electrical infrastructure that will support continued operation of existing sites. Part F3 seeks to ensure development is safe from coastal change for its intended lifespan; does not have an unacceptable impact on nature conservation, heritage or landscape designations; and is acceptable with coastal settlements in relation to character, setting, residential amenity and local services.
- 7.12 The Coastal Engineer and Sustainable Development Coast Teams have not raised any objections and within the comments confirmed documents submitted in support of this planning application show that the cable landfall will be directionally drilled approximately

15m below the beach and exit approximately 150m inland of the Mean High Water Spring (MHWS) tide line with no construction taking place within the intertidal zone. The Council's coastal monitoring data shows that at this location the coastline is currently eroding landward at a rate of approx. 0.37m/yr with minimal downcutting of the underlying glacial till. Hence coastal processes will not be negatively impacted by or have a negative impact on the proposed development.

- 7.13 Overall, the location and characteristics of the proposed development are not such that they would be significantly at risk from coastal change processes and are considered to comply with the criteria set out in Policy ENV6. Therefore the proposal complies with policy ENV6 and A2 part C.5.

Soils

- 7.14 Policy EC5 of the ERLP-SD is clear at A3vii that in principle energy development is supported, this depends on the effects of the development on soil resources (amongst other identified considerations).
- 7.15 Third parties (Members of the Public) have raised loss of soil, soil management and restoration as grounds of objection to this planning application.
- 7.16 Construction activities will result in a temporary disturbance to soil resource which are low to high in sensitivity within the planning application boundary. The application of appropriate good practice construction mitigation measures (i.e. industry best practice, including pre-commencement survey of remaining agricultural land, and production and implementation of a site-specific Soil Management Plan) will ensure that the structure, function and resilience of soil resources are protected and maintained.
- 7.17 The application of (appropriate) embedded mitigation (i.e. industry best practice, including pre-commencement survey of remaining agricultural land, and production and implementation of a site-specific Soil Management Plan) will prevent the unauthorised export of soils; minimise or prevent soil loss through erosion and trafficking on plant wheels; and ensure that soils are maintained in a state suitable for reuse during reinstatement (ensuring that no more than 5 % of soil resources are lost, retaining more than 95 % onsite and being suitable for reuse). The mitigation of loss of soil would also help ensure biosecurity by minimising the potential for the transfer of disease, pathogens and weeds.
- 7.18 The disturbance of soil mainly occurs during construction with minimal disturbance occurring during operation limited to ad hoc maintenance or remedial works which may be required. The scale and extent of these works would be far less than required for initial construction, being confined to the specific areas of cable.
- 7.19 The scale and nature of activities undertaken during decommissioning would be similar to those described previously for construction, and they would be temporary during the period of decommissioning activities on site. Following the removal of the structures and the reinstatement of the land there would be no further potential effects on agricultural land and soil resources.
- 7.20 A soil management plan will be secured by a necessary Construction Environmental Management Plan (CEMP) condition.
- 7.21 The proposal is acceptable regarding its impact to soil resources and complies with Part

Design

- 7.22 Third parties (members of the public) have raised design and site layout as grounds of objection to this planning application.
- 7.23 In summary 2 HVDC cables will be installed within a trench plus a fibre optic cable may to monitor the cables. Each cable is 15cm in diameter with a trench width of 1.5m monitoring. Whether Horizontal Direction Drilling (HDD) or open cut installation is utilised the minimum depth of coverage will be 900 mm to the cable warning tape. The depth of installation will be deeper at locations where HDD is used and can be made lower on land were necessary on a case by case basis.
- 7.24 Cable depth of 0.9 metres is a minimum depth and industry standard that is necessary to ensure surface activities such as farming can continue. Where necessary the depth of the cable will be lower and can be lowered on land were necessary on a case by case basis.
- 7.25 To backfill the trench a thermally suitable material (such as cement bound sand (CBS), or alternative), protective tile, warning tape, subsoil and topsoil (from stockpiled excavated material) will be used. The working width during construction is 40m that will include the cable trench, cable joint bays, soil storage, materials and equipment laydown, and temporary haul road. The working width extends at HDD locations or at complex crossings where additional space is needed.
- 7.26 Cable joint bays are permanently buried with a footprint of approximately 60 m² (within the working width), are required approximately every 800 m to 1.5 km with 72 joint bays estimated to be required along the proposed route.
- 7.27 Header drains will be installed throughout the underground cable route to intercept the clean surface water runoff to the header drains. Filter drains will be installed throughout the underground cable route to collect runoff from the haul road and discharge into various dirty ponds along the route. Attenuation storage is proposed primarily through ponds, the scaling of which has accounted for a 1 in 100 year return period plus 40% increase in peak rainfall to account for climate change. Outfalls are proposed to the nearest watercourse or drain. Where there is no watercourse within the vicinity of the works (namely through the Yorkshire Wolds) it is proposed that infiltration is used to dispose of surface water.
- 7.28 Permanent easement will be placed over the trench once constructed, typically 15m although wider at crossing locations.
- 7.29 Cable markers may be installed at crossing points with roads to identify the presence of the cable. However there is no other necessary permanent above ground infrastructure associated with the proposed route.
- 7.30 Landfall is the location where subsea cables connect to the underground cables at a buried Transition Joint Pit (TJP). The TJP will be set back from the coastline, beyond the coastal erosion risk area to avoid future cable exposure and to reduce risk of exacerbating any existing erosion. The TJP is located approximately 150 m inland from the Mean High Water Springs area from the intertidal area on the beach.
- 7.31 The TJP is an underground chamber constructed of reinforced concrete that houses the

cable joints between the subsea and underground DC cables. The permanent buried TJP will occupy an area of up to 60 m² (based on an indicative footprint of 12 m by 5 m), however, a larger area will be required during cable installation to accommodate temporary construction equipment and storage areas. This temporary compound area (up to approximately 100 m x 100 m) will contain all necessary plant and equipment plus parking and welfare facilities required for the installation activities at the landfall location. Once installation has been completed, the only infrastructure visible on the surface (on otherwise fully reinstated land) will be the cover of the link box pit.

- 7.32 Installation of the cables at the landfall between terrestrial and marine environments will be achieved utilising trenchless methods in order to minimise disruption and avoid direct impacts to the intertidal zone. The trenchless technique is likely to be Horizontal Directional Drilling (HDD). HDD is a construction technique typically utilised in utilities construction whereby a tunnel is drilled under a constraint (such as a watercourse, environmentally sensitive area or other infrastructure) and a pipeline or cable is pulled through the drilled underground tunnel. At the landfall HDD would be utilised to install a duct for each subsea cable between the TJP and the breakout point in the marine environment beyond the MLWS. The breakout point from the HDD is subject to the appointed Contractor's final design and dependent on the ground conditions and depth of the cable needed to be achieved to ensure suitable protection, however HDD's can typically be up to 800-1,200 m in length. The subsea cables will be pulled through the installed ducts and joined to the underground DC cables at the TJP.
- 7.33 Access to the landfall will be via a temporary access track from the existing road network, from the A165. Construction activities within the landfall area will include compound construction, site mobilisation, site operations, materials deliveries, cable pull-in, site demobilisation and site reinstatement and anticipated construction vehicles will include heavy goods vehicles (HGVs), light goods vehicles (LGVs), vans and cars. Abnormal Indivisible Load (AIL) movements will be required to allow cable delivery to the landfall area.
- 7.34 The inland underground cable route comprises two underground DC cables (and fibre optic cable(s) for performance monitoring) laid within a single trench (or where constraints dictate pulled through preinstalled ducts). The underground DC cables will form part of a bipole system which transmits power through two high voltage conductors of opposite polarity, operating at up to + 525 kV and – 525 kV.
- 7.35 The installation of the underground DC cables requires a working width up to 40 m wide (greater at HDDs and areas of crossing risk) to be established along the length of the cable route. The planning application provides for a land around the proposed route within the red line location plan which provides for reasonable flexibility in the planning permission for the cable installation to avoid areas of sensitivity or risk (such as unsuitable ground or previously unknown archaeological sites) during construction. Though most of the route the land around the cable route is approximately 20 m (i.e. 10 m either side) beyond the working width. As a result the planning application boundary is typically 60 m wide for most of the proposed route. It should be noted that, the land around the working width are wider in areas of greater risk, such as at sensitive crossing locations. The working width is demarcated by a post and rail fence.
- 7.36 An 'as-built' plan, showing full details of the cable route's final alignment including the positions of all joint bays will be secured by a necessary condition as well as a land restoration scheme.

- 7.37 In terms of design the proposal is acceptable complying with policy ENV1 of the ERLP-SD and the National Design Guide as well as the NPPF and its associated PPG.

Landscape and Visual Amenity

- 7.38 Policy ENV1 of the ERLP-SD seeks the incorporation of hard and soft landscaping alongside boundary treatments of an appropriate scale and size to enhance the setting of buildings, public spaces and views (B.8) and ensuring green infrastructure is well integrated into the proposed development (B.12). Policy ENV2 of the same document promotes a high quality landscape (part A) and identifies important landscape areas including Yorkshire Wolds (part B1) as well as The Lower Derwent Valley which includes the River Derwent Corridor and Pocklington Canal (part B3). Policy ENV5 seeks to strengthen green infrastructure.
- 7.39 A Landscape and Visual Impact Assessment is included in Chapter 8 of the Environmental Statement. In summary the proposed cable route will result in no significant effects on the landscape character or the locally designated landscapes during construction or operation.
- 7.40 The landscape of the application site varies including low-lying and undulating coastline and inland agricultural coastal plain to the east, to the undulating and rolling agricultural landscape of the locally designated Yorkshire Wolds and the large scale agricultural landscape of the Humberhead Levels to the west.
- 7.41 There are currently no nationally designated landscapes within the East Riding of Yorkshire, although two registered Parks and Gardens are located within the Yorkshire Wolds in the centre of the cable route which is identified locally as an Important Landscape Area along with the Lower Derwent Valley (and Pocklington Canal) to the west of the study area.
- 7.42 At local level route section one affects landscape areas 20C (Coastal Farmland), 19C (open Farmland), 18A (River Hull Corridor), 18E (Kelk Beck Farmland), 16A (Southwest Driffield Parkland and Golf Course), 16B (Kilwick Percy wooded farm land outside of cable route), 16D (Nafferton Sloping Farmland) and 16E (Lund Sloping Farmland) as identified in the East Riding Landscape Character Assessment.
- 7.43 Route section two affects landscape character areas 13A (South Dalton Estate Farmlands), 13C (South Wolds Rolling Farmland), 13D (North Wolds Plateau Farmland), 12A (South Western Sloping Wolds Farmland, 11A (West Facing Open Farmland), 10G (West Wolds Edge Elevated Farmland), 10H (West Facing Scarp Slope) as identified in the East Riding Landscape Character Assessment.
- 7.44 Route Section three affects landscape character areas 7A (South of Holme on Spalding Moor Farmland), 6B (South Cliffe and Hotham Common), 5A (Howden to Bubwith Farmland), 4A (Derwent Valley, Barmby on the Marsh to Pocklington Canal Reach), 4B (River Ouse corridor: Barmby on the Marsh to M62 Bridge), 1 (Shiptonthorpe and Market Weighton Farmland).
- 7.45 In terms of visual amenity, the underground cable route will pass through a variety of landscapes. The alignment of the proposed underground cable route has been selected to avoid settlement and therefore reduce the number of potential visual receptors affected. Notwithstanding this, the application site and are close by contains a well-developed network of roads, public rights of way (PRoW) including footpaths and bridleways, recreational routes and railways.

- 7.46 During construction there are several elements and activities that have the potential to temporarily impact landscape character and visual amenity relating to the removal of existing landscape features such as hedgerows and arable land, and the visibility of new temporary features such as construction machinery, including effects on perceptual qualities of landscape and visual amenity.
- 7.47 Following construction of the landfall and the underground cable route, the working width along with construction compounds will be fully reinstated and as such no long-term operational landscape and visual impacts resulting from these elements will occur.
- 7.48 *Landscape Character* – Construction relating to the landfall and underground cable route will temporarily influence the character of localised sections of the landscape. The temporary loss of agricultural land and the removal of hedgerows and trees will be limited, although the construction activity including machinery, excavated trench and stockpiled materials will be locally prominent and incongruous elements within the landscape. However, the temporary nature and short term duration of construction activity will be localised within small parts of the constituent Landscape Character Areas resulting in Minor adverse or negligible residual effects on landscape character and the Important Landscape Areas. No long term effects along the underground cable route will result due to the full reinstatement of the working areas.
- 7.49 *Visual Effects* – potential construction stage visual effects associated with the construction of the landfall and underground cable route will result in Minor adverse effects which are not significant. Whilst the composition and focus of some of the views experienced by residential and recreational receptors will noticeably change this will be for a temporary period of time and of short duration. The immediate reinstatement of the landfall and underground cable route will mean that there will be no long term visual effects experienced by these receptors.
- 7.50 Mitigation measures include siting and routeing of the cable to avoid more sensitive landscape features and proximity to settlement and residential properties and avoiding the areas of highest quality landscape in the Yorkshire Wolds Important Landscape Area; and Construction Control and Management Measures to limit the land take and disruption associated with the construction of the underground cable route including the reinstatement of agricultural land and boundary features such as hedgerows.
- 7.51 The proposal is supported by a 'High Level Arboricultural Impact Assessment' which includes the route for the proposed underground cable. Areas of tree cover which are likely to be of particular value (such as trees protected by Tree Preservation Order or potentially veteran trees identified via the Ecology survey) are proposed for retention where possible and where some loss is likely to be unavoidable it will be reduced to the minimum feasible following detailed assessment. New tree and hedgerow planting will be required across the area to compensate for any tree/hedgerow losses and to assist in integrating the development into the local landscape in accordance with Policy ENV2. These details will be secured by condition for a pre-commencement restoration plan.
- 7.52 There are no landscape or visual amenity reasons why the application could not be approved. Therefore it complies with policies ENV1 (part B.8 and B.12), ENV2 and ENV5 of the ERLP-SD, as well as the NPPF and its associated PPG.

Nature Conservation and Ecology

- 7.53 Policy ENV4 of the ERLP-SD seeks to conserve and enhance biodiversity and

geodiversity.

- 7.54 Environmental Statement (ES) Volume 2 Chapter 7: Ecology and Nature Conservation and Chapter 18: Outline Construction Environmental Management Plan (Outline CEMP) have been submitted in support of this planning application.
- 7.55 A number of statutory and non-statutory nature conservation sites were identified that could be affected by the proposed development. The siting of the landfall site and implementation of Horizontal Directional Drilling (HDD) installation methods to connect the cable to the Marine Scheme means that the proposal avoids direct impacts on the nearest international designations, which are the Greater Wash Special Protection Area (SPA) and Flamborough and Filey Coast SPA and the Flamborough Head Special Area of Conservation (SAC).
- 7.56 The cable has been routed to avoid direct impacts on several Sites of Special Scientific Interest (SSSIs) including Kiplingcotes Chalk Pit SSSI and Barn Hill Meadows SSSI. Whilst it has not been entirely possible to entirely avoid crossing the River Hull Headwaters SSSI, measures to minimise potential direct and indirect effects of the proposed development will be adopted including the installation of the cable using HDD installation methods at both the River Hull and Kelk Beck crossing locations. The adoption of a number of other mitigation measures through design and during construction approach are committed to including ensuring construction activities are located as far away from the SSSI as possible to help reduce noise and visual disturbance to breeding birds as a result. The temporary disturbance of Kelk Beck due to the installation of a construction haul road will ensure the design maintains the water flow and integrity of the watercourse, and minimises the disturbance of the Beck channel and banks.
- 7.57 Appropriate mitigation measures have been embedded within the design to minimise potential indirect effects upon riparian fauna including passage by fish, otter and water vole. Habitats will be fully reinstated to the former condition and where possible enhanced. Appropriate measures to control dust emissions, pollution and surface water run-off during construction and operation are embedded within the Construction Environmental Management Plan (CEMP) to ensure legislative compliance, and overall there will therefore be no significant effect upon the SSSI.
- 7.58 The proposed development also avoids direct impacts upon several Local Wildlife Sites (LWS). Within Section 2, east of Market Weighton the planning application boundary crosses two LWS; Granny's Attic Railway and LWS Etton-Gardham Disused Railway LWS which are located within a section of the Hudson Way Local Nature reserve. HDD installation measures will be used to avoid direct effects upon the LWS calcareous grassland and mosaic habitats. The haul road and construction compound in this area are designed to avoid and protect LWS designated habitats by adoption of delineation fencing and monitoring during the construction phase.
- 7.59 The proposal will result in no significant residual effects on habitats including several areas of UK priority habitats. It crosses predominantly agricultural land comprising mainly of intensively farmed arable fields, interspersed with smaller permanent grassland paddocks (used for horse and livestock grazing), which are species poor and of low ecological value. Where the application boundary crosses hedgerows and field boundaries the removal of these habitats will be minimised wherever possible and reinstated to at least equal or better value/condition as part of habitat reinstatement measures. Mature trees, including those with potential to support roosting bats will be entirely avoided wherever possible and protected during the construction phase to avoid impacts upon tree root zones.

- 7.60 No significant effects on protected species have been identified. Appropriate precautionary mitigation to ensure legislative compliance prior to the commencement of site establishment and clearance works including where required pre-construction surveys. Measures to specifically address potential effects of temporary disturbance to habitats and protected species they support are committed to. These include pre-construction surveys and mitigation for habitats having potential to /confirmed to support roosting bats, badger, water vole, otter and common species of reptiles. Mitigation for nesting birds and to reduce effects of disturbance to bird at sensitive locations such as at River Hull will also be provided site-wide during the construction phase. Habitats will be fully reinstated post-construction, and therefore there will be no significant effects on local populations.
- 7.61 Natural England have raised no objection and requested one necessary condition to secure mitigation measures outlined in Environmental Statement (ES) Volume 2 Chapter 7: Ecology and Nature Conservation and Chapter 18: Outline Construction Environmental Management Plan (Outline CEMP).
- 7.62 The Sustainable Development Biodiversity Officer has also raised no objection. An Invasive and Non-Native Species (INNS) method statement detailing how INNS encountering during the works will be managed will also be secured as part of the Construction Environmental Management Plan condition.
- 7.63 Yorkshire Wildlife Trust have objected to the proposal regarding the Habitat's Regulation Assessment (that has been addressed through the updated HRA and agreed with Natural England), and secondly with regard to Biodiversity Net Gain (BNG). The latter relates to how BNG will be delivered as it relates to the cable route. Providing BNG on the cable route is inappropriate due to the linear nature of the scheme and agricultural land use that the application site would be returned to post construction. Several potential off-site areas as BNG opportunities have been identified and these would be developed taking into account updated BNG calculations based on the final route design and progressed with interested parties secured by a necessary planning condition.
- 7.64 The impact of the proposal to ecology/biodiversity is acceptable. Therefore it complies with policy ENV4 of the ERLP-SD, as well as the NPPF and its associated PPG.

Impact on Heritage Assets

- 7.65 Policy ENV3 of the ERLP-SD values heritage. Special regard should be paid to the desirability of preserving significance, views, setting, character, appearance and context of heritage assets and considerable weight should be afforded to the conservation and enhancement of designated heritage assets. Both designated and non-designated, should be conserved especially key features that contribute to East Ridings distinctive historic character.
- 7.66 *Heritage Assets* – Due to the size of the application site there is a potential for impact upon a wide range of listed buildings and conservation areas throughout the East Riding. This potential heritage impact is detailed within Chapter 9: Archaeology and Cultural Heritage of the Environmental Statement and includes all heritage assets within a defined 500 m study area where there is the potential for the construction of the cable trench and construction compounds to result in impacts through change to the setting and significance of heritage assets. The assessment concluded that temporary construction activities would result in significant effects to seven heritage assets, generally in locations where the cable trench and construction compounds are located together within the rural agricultural setting of farms and settlements. These effects would generally remain for the

duration of the construction period and would cease once the development is complete and operational. It is considered that the harm to the affected heritage assets is less than substantial and there are significant wider public benefits as a result of the transportation of nationally required electricity which would outweigh the harm in this case.

- 7.67 Historic England have not raised any objections with regards heritage assets. Conservation have also not raised any objections and within their response support recommendations as well as agree that there is potential for the impact upon heritage assets but subject to the areas being made good any impact would be temporary and not result in long term harm.
- 7.68 *Archaeology* – Archaeological evidence, as well as documentary and cartographic sources, demonstrate that the landscape of the study area has been exploited and settled from the Mesolithic period onwards, although the most prominent remains identified within the planning application boundary date to the Iron Age and Roman period. Extensive remains of field systems, trackways, and settlements have been recorded through aerial photography throughout the study area, and geophysical survey undertaken as part of the scheme has enhanced understanding of remains within the planning application boundary.
- 7.69 The post-Roman landscape of the planning application boundary is dominated by agricultural land, with the route passing through the field systems associated with the medieval and post-medieval settlements and farmsteads. As a result, the majority of physical impacts are on remains dating to the Iron Age and Roman Period.
- 7.70 Data from both the East Riding of Yorkshire and North Yorkshire Historic Environment Record, as well as archives, libraries, previous fieldwork and surveys, and walkover surveys to establish the cultural heritage baseline conditions supported by a review of aerial photographs, geophysical survey of the route, and targeted metal detector surveys, which have also helped assess the potential for further cultural heritage assets to be present within the planning application boundary. Buried archaeological features associated with all periods have been recorded within the planning application boundary, although the majority date to the Iron Age and Roman period with field systems and settlements noted. Most medieval and post-medieval remains are limited to ploughed out ridge and furrow, and field boundaries, while modern remains include an aircraft crash site from the Second World War.
- 7.71 The construction of the underground cable trench, as well as associated works such as haul routes and construction compounds has the potential to result in permanent effects arising from the loss of buried archaeological features within the planning application boundary. As such, a programme of archaeological mitigation is required.
- 7.72 To inform the full scope of archaeological mitigation, further archaeological evaluation will be undertaken and will include limited evaluation trenching followed by full excavation or strip, map, and sample of known heritage assets. In areas where buried remains have not been recorded to date a phased programme of works will be undertaken. This will include geophysical survey and metal detector surveys in areas of the planning application boundary where access for surveys was unavailable during the preparation of the desk-based assessment. This will be followed by a programme of evaluation trenching to characterise features as well as test blank areas. The results of the geophysical survey and trial trenching would inform an appropriate archaeological mitigation strategy.
- 7.73 The archaeological mitigation strategy may include option such as the avoidance and preservation of archaeological remains by narrowing the working corridor or use of

trenchless technologies to preserve archaeological features in situ. However, due to the nature of the archaeology encountered to date, the mitigation strategy will also include a programme of archaeological investigation comprising excavation, recording, assessment, analysis and publication in a number of areas. The scope of the archaeological mitigation will be agreed with the Planning Archaeologist for the East Riding of Yorkshire (and Historic England if appropriate) secured by a necessary planning condition.

- 7.74 Historic England and Humber Historic Environmental Record have not raised any objections to the archaeological information provided.
- 7.75 The impact of the proposal will not cause harm to historical assets and is therefore acceptable. Therefore it complies with policy ENV3 of the ERLP-SD and as well as the NPPF and its associated PPG.

Flood Risk, Drainage and Groundwater Protection

- 7.76 Policy ENV6 of the ELP-SD seeks to manage Environmental hazards, such as flood risk, coastal change, groundwater pollution and other forms of pollution, will be managed to ensure that development does not result in unacceptable consequences to its users, the wider community, and the environment.
- 7.77 Third parties (members of the public) have raised drainage and groundwater as grounds of objection to this planning application.
- 7.78 *Flood Risk and Drainage* – There are a total of 100 surface water features proposed to be crossed by the proposed development, which are a mixture of Main River and ordinary watercourses, Water Framework Directive designated, Internal Drainage Board maintained channels and minor drains.
- 7.79 Parts of Section 1 of the proposed development are located within areas of high surface water risk, parts of Section 2 and 3 within areas of medium surface water risk.
- 7.80 Parts of Sections 1 and 3 of the proposed development are within areas of medium Flood Zone 2 and high risk flood zone 3, the overall flood risk from groundwater, residual sources, historic risk and sewers to the proposal is low.
- 7.81 The main potential impacts relating to construction include increased surface water runoff and changes to existing runoff rates through increases in impermeable areas. There are also temporary impacts to local hydromorphology, impacts from the mobilisation of fine sediment to water features effecting water quality through run off or scour, and mobilisation of oils, cement or other chemicals effecting water quality. Impacts during construction also include severance or disturbance to underground field/land drainage infrastructure, changes to the existing flow regime of watercourses as a result of crossings and potential increase in flood risk elsewhere due to available compensatory land storage being displaced.
- 7.82 The main potential impacts relating to operation include increased surface water run off through increases in impermeable areas, severance or disturbance to underground field/land drainage infrastructure and mobilisation of oils, cement or other chemicals effecting water quality contained within run off.
- 7.83 In terms of mitigation the design of the proposal has sought to avoid impacts to hydrology receptors through use of Horizontal Directional Drilling, bridge crossings, considerate

placement and design of culverts and construction features to avoid areas at risk of flooding or protected areas or sensitive watercourses including those of good ecological or high morphological status.

- 7.84 Although no drainage strategy has been produced as part of this planning application, an outline drainage design is included with this submission. Further foul and surface water drainage details can be secured by a necessary planning condition.
- 7.85 *Groundwater Protection* – geology underlying the application site comprises variable Glacial Till, alluvium, warp, glaciolacustrine and glaciofluvial deposits. Underlying bedrock consists of chalk at the east, Mudstone in the central part and Sandstone at the west. Areas of made ground include various current and historical railways.
- 7.86 In relation to hydrogeology, the superficial deposits are classified as Unproductive to Secondary A Aquifers (corresponding to alluvium and glacial sands and gravels). The chalk and Sherwood Sandstone bedrock strata at either end of the proposal are classified as Principal Aquifers. Groundwater vulnerability is generally classified as medium to high. The route intersects Source Protection Zones (SPZ) 2 (Section 1 and 2) and 3 (all Sections) and passes within approximately 140 m of a SPZ1 at Hutton (Section 1). Six groundwater abstractions, including five for domestic supply, were identified within Sections 1 and 2.
- 7.87 Sites of potentially contaminative current and/or historic land uses have been identified within the study area including quarries and pits and railways. However, the majority of land within the planning application boundary is used for agriculture.
- 7.88 The identified potential impacts which may occur during the construction phase are primarily associated with spillages and leaks of fuel/oil associated with plant/machinery, disturbance of contaminated soils and potential degradation of soil quality during handling and movement of soil or tracking of heavy plant, as well as the potential for dewatering to locally affect groundwater levels. In addition, there may be the potential for creation of pathways between shallow soils, drilling fluids and/or contaminated groundwater (if present) and deeper (uncontaminated) strata and groundwater, depending on the construction techniques employed. However, all of these effects can be controlled through good practice and standard mitigation measures outlined in the Construction Environmental Management Plan (Chapter 18: Outline Construction Environmental Management Plan) secured by a necessary planning condition.
- 7.89 During the operational phase, identified potential impacts are limited to effects resulting from potential land contamination on site users. Mitigation of the potential impacts will be put in place at construction phase which would also aid in the reduction of operational effects. Required mitigation will be confirmed by means of risk assessments based on ground investigation data and may include removal of contaminant sources and installation of gas protection measures on the buildings. As such, the significance of residual effects are not significant.
- 7.90 Yorkshire Water have raised no objection and requested one necessary condition to protect Yorkshire Water's infrastructure within the site.
- 7.91 The Environment Agency have also raised no objection and requested three conditions for flood risk mitigation permanent works phase, flood risk mitigation construction works phase and settlement facility to treat construction run-off.

- 7.92 Public protection have not raised any objections and within their response confirmed three conditions are necessary regarding investigation and risk assessment of land contamination, remediation and managing unexpected contamination.
- 7.93 The Council's Lead Local Flood Authority and Land Drainage Teams have also raised no objection and requested one condition for full surface water drainage details of the temporary compound and access track.
- 7.94 The Ouse and Humber Drainage Board and the Beverley and North Holderness Internal Drainage Board have both raised no objections. The latter has requested nine conditions requested for additional drainage work details to be agreed, restrictive rate of discharge, sustainable urban drainage system, drainage routes, 9 metre maintenance strip, 6 metre clear of culvert, 4 metre access strip, no storage of materials and crossings. These nine conditions are not necessary because additional foul and surface water drainage details will be secured by condition. The others are already covered by legislation separate from planning enforced by Beverley and North Holderness Internal Drainage Board.
- 7.95 There are no drainage or groundwater protection reasons why the application could not be approved. Therefore, it complies with policies ENV4 and ENV6 of the ERLP-SD, as well as the NPPF and its associated PPG.

Impact on Living Conditions

- 7.96 Policy ENV1 seeks to safeguard the amenity of existing and proposed properties from harm. Further guidance is provided in the NPPF and its associated PPG.
- 7.97 Third parties (members of the public) have raised a detrimental impact to the amenity of local residents (additional noise, vibrations and external light) as grounds of objection to this planning application.
- 7.98 Chapter 13: Noise and Vibrations as well as Chapter 18: Outline Construction Environmental Management Plan have been submitted in support of the application.
- 7.99 *Noise and Vibrations* - There are a number of isolated dwellings and settlements within 500 metres either side of the proposed development. Construction activities associated with the proposed development will result in additional noise and vibrations, although during operation noise and vibrations will be limited and only possible if maintenance is necessary. However, it is most likely that occupiers of isolated residential properties located within predominantly rural agricultural areas along the planning application boundary, as well as within the settlements of Market Weighton, Hutton, Hutton Cranswick, Skerne and Wansford. Temporary occupation by holiday makers of South Shore Holiday Village located to the north of the landfall location may also be impacted.
- 7.100 It is anticipated that site preparation works for Horizontal Directional Drilling (HDD) at the landfall will take place within normal working hours, Mon-Fri 7am- 7pm; Sat 8 am to 5 pm. Individual drill operations, however (i.e. the entire sequence of activities pertaining to a single bore) are carried out continuously until completion and therefore may include 24-hour working. The expected duration of works to set up the drilling location, complete drilling activities and pull the ducts back through for cable pulling at the Landfall is likely to be approximately two months (and excludes cable jointing).
- 7.101 The proposed underground cable route will be installed by a combination of open cut and trenchless methods. Open cut methods will be utilised more commonly across the

underground cable route as it will be utilised when installing the cables within open agricultural land. Areas of trenchless methods, likely to be HDD, will typically be utilised where obstacles and sensitive features including, A and B roads, railways, main rivers, and environmentally designated sites require to be crossed.

- 7.102 The majority of works activities would be completed under normal working hours/restrictions Mon-Fri: 07.00-19.00; Sat: 08.00-17.00; and No working on Sundays, or Bank Holidays. Some works activities may need to occur outside of normal working hours/times, including some 24-hour working, due to activities requiring to be undertaken continuously (such as HDD and cable jointing). Where work outside of times is necessary prior notification will be provided to the Local Planning Authority.
- 7.103 An environmental noise survey has been undertaken, with the results provided within chapter 13 (Noise and Vibrations) of the Environmental Statement, to establish background noise levels at locations representative of the nearest noise sensitive receptors based on the location of the proposed development. Unattended measurements and short-term attended measurements were undertaken in September 2021. In rural areas the existing background noise levels are low. Construction noise levels have been estimated based on data in BS 5228-1. A worst-case assessment has been undertaken based on typical construction activities.
- 7.104 Potentially significant effects are identified at 10 noise sensitive receptors.
- 7.105 Construction and laydown areas will be sited away from noise sensitive receptors. However this is not possible with the cable route itself. Although due to the nature of the proposed development, significant effects are short-term and temporary as the cable is laid along the proposed route and its proximity to noise sensitive receptors.
- 7.106 There is potential for significant noise effects if work were to take place at the same intensity during evenings/night-time and/or other weekend periods. Therefore construction activities would be prevented in these time periods or if unavoidable face additional controls or restrictions during evenings/night-time to limit noise and vibrations secured by a necessary planning condition. By timing construction works and avoiding noisier activities (or limiting them to those which are unavoidable e.g. HDD or jointing which require continuous working) being undertaken at night, significant effects can therefore be reduced to not significant.
- 7.107 Typical construction working practices are unlikely to generate levels of vibration at local receptors above which cosmetic damage to structures is predicted to occur. Residual effects due to construction vibration is assessed as being, at worst, not significant at the nearest noise sensitive receptor due to the separation distance (approximately 100 metres) between it and the construction works.
- 7.108 All noise sensitive receptors are predicted to have no significant residual effects due to construction traffic accessing the site.
- 7.109 Potentially significant effects would be mitigated by adopting best practicable means and a Construction Environmental Management Plan (CEMP) secured by a necessary planning condition.
- 7.110 Mitigation measures include unnecessary revving of engines and equipment will be switched off when not in use; internal haul routes will be kept well maintained; rubber linings in, for example, chutes and dumpers will be used to reduce impact noise; drop

heights of materials will be minimised; plant and vehicles will be sequentially started up rather than all together; plant used in accordance with manufacturers' instructions, sited away from noise-sensitive areas and loading and unloading will be carried out away from such areas; and regular maintenance by trained personnel undertaken to keep plant and equipment working to manufacturer's specifications.

- 7.111 Noise monitoring will also be undertaken and would allow periods where elevated noise levels arise be identified and allow works to be halted or alternative working practices to be explored secured by a necessary planning condition.
- 7.112 The effect of noise and vibration at nearby sensitive receptors can also be minimised through a good communication strategy. Prior to works being undertaken, liaison will be undertaken with the occupiers of sensitive receptors that may be adversely affected by construction noise. Providing information on the construction works and advance notice of when high noise generating activities are taking place can reduce adverse effects. As significant noise effects are predicted at receptors within approximately 100 m of the cable route, properties within this area should be communicated with. All communications will contain contact details on the timings and duration of proposed works along with contact details for whom any questions or complaints should be directed.
- 7.113 Monitoring of noise complaints and reporting to the applicant for immediate investigation and action. A display board will be installed on-site and a website will also be set up. These will include contact details for the Site Manager or alternative public interface with whom nuisance or complaints can be lodged. A logbook of complaints will be prepared and managed by the Site Manager. Monitoring and a communication strategy measures will be part of the CEMP.
- 7.114 Environmental Statement (Volume 2) Chapter 18: Outline Construction Environmental Management Plan (dated May 2022) confirms how air quality will be monitored during construction of the proposed pipeline to protect human health and avoid dust nuisance. External lighting are also provided to protect the amenity of local residents. It also refers to a Generic Quantitative Risk Assessment (GQRA) (Contamination) to be produced leading to a Remediation Strategy if required.
- 7.115 *Air Emissions* – The applicant will appoint a nominated person(s) to undertake daily on-site and off-site inspections, where receptors (including access roads and public highways) are nearby, to monitor dust. The inspection will include all haul routes within the site. All inspection results will be recorded in a log, which will be made available to the local authority when requested. Any exceptional incidents that cause dust and/or emissions, either on-or-offsite and the action taken to resolve the situation will also be recorded in the log.
- 7.116 Machinery and dust causing activities will be located away from receptors. Access gates are to be located at least 10m from receptors.
- 7.117 Solid screens or barriers will be erected around dusty activities or, if required, at the planning application boundary. These will be at least as high as any stockpiles on-site. Where there is high potential for dust production for an extensive period the working area or the specific dust generating operations will be fully enclosed. All site fencing, barriers and scaffolding will be kept clean using wet methods to prevent resuspension of dust.
- 7.118 Stockpiles will be covered, seeded or fenced to prevent wind-whipping (generation of airborne dust through erosion). Materials that have a potential to produce dust will be

removed from site as soon as possible, unless being re-used on-site. These measures will also help mitigate rainfall infiltration, leachate generation and surface runoff.

- 7.119 The creation of site runoff of water or mud (silty runoff) will be avoided as, when dried, this can become a source of wind-blown dusts.
- 7.120 All site haul routes are to be inspected for integrity and necessary repairs to the surface undertaken as soon as reasonably practicable; and hard surfaced haul routes should be installed wherever possible (this will also minimise vehicle generated noise and vibration). All haul roads are to be regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.
- 7.121 A wheel washing system will be implemented, (fitted with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable). The Contractor will ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permit, to minimise the risk of trackout of debris to the public highway. Equipment washing facilities will also be provided where required.
- 7.122 Road sweeping (including and water jet vacuums) will be undertaken as necessary to remove any material tracked out of the site from local public and site roads. This may require the sweeper being continuously in use. This will reduce the risk of silt being washed into surface water gullies and watercourses and reduce the risk of dust generation. The risk of dust generation will be further minimised by avoiding the dry sweeping of large areas.
- 7.123 To minimise the generation of air emissions during construction all cutting, grinding or sawing equipment is fitted, or used in conjunction, with suitable dust suppression techniques such as water sprays or local extraction e.g. suitable local exhaust ventilation systems; A water supply on the Site for dust/particulate matter suppression/mitigation; All chutes and conveyors are enclosed, and skips covered; drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment will be minimised and fine water sprays are used on such equipment wherever appropriate; Equipment will be readily available on site to clean any dry spillages; Earthworks and exposed areas/ soil stockpiles will be revegetated to stabilise surfaces; Hessian, mulches or trackifiers are only to be used where it is not possible to re-vegetate, as soon as practicable; and soils will be stripped progressively so as to minimise the area of bare land and soils stockpiled. The use of bonfires and burning of waste materials will be strictly prohibited.
- 7.124 A Dust Management Plan detailing how dust and other airborne emissions will be controlled and mitigated during the works will be secured as part of the Construction Environmental Management Plan (CEMP) condition.
- 7.125 *External Lighting* – specific lighting will be required for winter working (due to the short-day lengths when lighting will be required at the beginning and end of the day) for the construction works and the site welfare and site security cabins. Lighting will be directional with care to minimise potential for light spillage beyond the site particularly towards houses, live traffic, and neighbouring habitats especially where there are known populations of sensitive species such as bats, badgers etc. Lighting will be used only when required and will comprise lighting of work areas and access and egress with low level directional lighting. Motion sensor lighting will be used in areas of high security risk and access and egress.

- 7.126 Lights installed will be of the minimum brightness and/ or power rating capable of performing the desired function; Light fittings will be used that reduce the amount of light emitted above the horizontal reduce upward lighting); Light fittings will be positioned correctly and directed downwards; Direction of lights will seek to avoid spillage onto neighbouring properties or habitats; Passive Infra-Red (PIR) controlled lights (motion sensors) will be considered for use where appropriate as these may be more acceptable to neighbours than those which are controlled by a time switch or are on all the time. These will be given particular consideration in areas of high security risk and access and egress; and unnecessary lights will be switched off.
- 7.127 Public protection have not raised any objections with regards noise and vibrations, air emissions or external lighting.
- 7.128 There are no residential amenity reasons why the application could not be approved subject to condition protecting residential amenity specifically regarding noise and vibrations. Therefore it complies with policy ENV1 of the ERLP-SD, as well as the NPPF and its associated PPG.

Access, Parking and Highway Safety

- 7.129 Policy EC4 of the ERLP-SD seeks to enhance sustainable transport in order to increase overall accessibility, minimise congestion and improve safety, new development will be supported where it is accessible, or can be made accessible, by sustainable modes of transport and addresses its likely transport impact.
- 7.130 Third parties (members of the public) have raised access and highway safety as grounds of objection to this planning application.
- 7.131 Chapter 14: Traffic and Transport of the Environmental Statement, Construction Traffic Management Plan (CTMP), Bellmouth Schedule and Access Plan.
- 7.132 45 access and/or crossing points are proposed to the development site from the public highway within the East Riding of Yorkshire Council administrative boundary via a mixture of classified and unclassified public highways.
- 7.133 During construction of each access and use of each crossing point mitigation works to safety guard highway safety including reduced speed limit reductions and temporary traffic lights where visibility is not complaint with existing speed limits. This approach is acceptable by ERYC's Traffic Management team secured by a necessary condition.
- 7.134 Speed reductions would also require a Traffic Regulation Order (TRO) throughout the construction phase and following construction the TRO would be altered back or removed at the developer's expense.
- 7.135 Appendix 14D of the Environmental Statement is a traffic flow diagram for local highway networks that has identified existing and additional vehicle movements that are likely generated by the proposed development. Due to the nature of development proposed this would be via HGV's, plant and small vehicles such as vans and cars. Around 800 workers would be required although a 2:1 ratio has been applied because most workers care share (this equates to 400 arrivals and 400 departures a day as a worst case scenario). The percentage increase in HGVs are below 30% for all roads apart from Carr Lane, Burnbutts Lane and Holme Wold Road were HGV movements are >30% during peak construction periods. However, the actual increase in HGV movements per day is minimal (<10). As

such with the implementation of appropriate management measures, including considerate timing of deliveries, the increases in HGV movements will not result in a significant impact.

- 7.136 The anticipated number of traffic movements will not increase local highway network movements significantly; the majority of the larger HGV movements will remain on the proposed built haul road, classified and local strategic highway network. Local roads would see a small increase in HGV movements during the mobilisation and construction of the access and crossing points.
- 7.137 The outline Construction Traffic Management Plan confirms the Contractor(s) will ensure that a road condition survey (also referred to as a dilapidation survey) is carried out prior to any enabling works or construction commencing. This will ensure that any pre-commencement remedial works are undertaken and any damage to the highway is rectified to the developer expense and secured by a necessary planning condition.
- 7.138 Each site compound along the cable route will be provided with sufficient access, turning and parking facilities with more detailed plans provided as part of a necessary Construction Traffic Management Plan condition.
- 7.139 The public highway in the vicinity of the site accesses, highway crossings and temporary accesses will be inspected by the developers/ their contractors daily for the presence of site-related debris (mud). Regular road maintenance (including cleaning) will be carried out and wheel washing system provided fitted with rumble grids to dislodge accumulated dust and mud prior to leaving the site. Plant and equipment washing facilities will also be provided where required. Road sweeping (including and water jet vacuums) will be undertaken as necessary to remove any material tracked out of the site to the public highway. This may require the sweeper being continuously in use.
- 7.140 Highway Development Management have not raised any objections and within the comments confirmed that overall, the proposal would not result in a significant impact on public highway safety, nor have a severe impact on the local highway network.
- 7.141 National Highways holding objection has been withdrawn after the wording of a Construction Traffic Management Plan was agreed with National Highways, the applicant and Highway Development Management.
- 7.142 Thus, there are no highway safety or capacity reasons why the application could not be approved. Therefore it complies with policy EC4 of the ERLP-SD, as well as the NPPF and its associated PPG.

Public Rights of Way

- 7.143 Policy ENV5 of the ERLP-SD seeks to strengthen green infrastructure and supporting text to this policy identifies designated Public Rights of Way as green infrastructure.
- 7.144 Third parties (members of the public) have raised a detrimental impact to users and use of public rights of way to access the proposed development as grounds of objection to this planning application.
- 7.145 There are 28 public rights of way/ national cycle network routes within 450 metres of the site with 12 proposed to be crossed in section 1; 13 public rights of way/ national cycle network routes within 450 metres of the site with 8 proposed to be crossed in section 2;