THE ELECTRICITY ACT 1989

AND

THE ACQUISITION OF LAND ACT 1981

THE NATIONAL GRID VIKING LINK LIMITED (VIKING LINK INTERCONNECTOR) COMPULSORY PURCHASE ORDER 2019

STATEMENT OF CASE

Contents

1. INTRODUCTION

1.1 This document is the Statement of Case of National Grid Viking Link Limited ("NGVL") prepared in connection with the National Grid Viking Link Limited (Viking Link Interconnector) Compulsory Purchase Order 2019 ("the Order") which was made by NGVL on the 15th of January 2019 and submitted to the Secretary of State for Business, Energy and Industrial Strategy ("Secretary of State") for confirmation on the 18th of February 2019.

1.2 This Statement of Case is a statement under Rule 7 of the Compulsory Purchase (Inquiries Procedure) Rules 2008. NGVL reserves the right to alter or expand it as necessary.

1.3 The Order was made pursuant to section 10 of and schedule 3 to the Electricity Act 1989 ("the 1989 Act") (CD2) and having regard to the Ministry of Housing, Communities and Local Government's Guidance on Compulsory purchase process and The Crichel Down Rules (Updated February 2018) ("the CPO Guidance") (CD3).

1.4 If confirmed, the Order will authorise NGVL to purchase compulsorily the land and new rights in land required for the purpose of a high voltage direct current electrical interconnector, including a converter station at North Ing Drove, and a high voltage alternating current connection to the National Grid Electricity Transmission Plc substation at Bicker Fen ("NGET Substation"), together with associated works (hereinafter referred to as the "UK Onshore Scheme") forming part of the Viking Link Interconnector, for which NGVL has an Electricity Interconnector Licence (please see section 3 below for more information) (CD1).

1.5 In this Statement, the land which is the subject of compulsory purchase powers is referred to as the "Order Land", including the land over which new rights are proposed to be acquired. The Order Land is described in section 4 of this Statement and is shown coloured pink (land subject to freehold acquisition) and blue, brown, yellow, orange and green (land subject to the acquisition of new rights) on the Map which forms part of the Order.

1.6 A number of drawings or figures are referred to in this Statement which, for ease, have been complied into a separate "Book of Plans" that comprises Appendix 1 to this Statement. References in this Statement to "BoP [x]" are to the numbered drawing or figure in the Book of Plans.

1.7 As explained in section 16 of this Statement, a total of 13 objections were made to the Order. The Secretary of State has therefore directed that a public inquiry should be held to consider and determine whether the Order should be confirmed. The inquiry has been listed to commence on Tuesday the 25th of June 2016 and is scheduled for six days.

2. INTRODUCTION TO THE VIKING LINK INTERCONNECTOR

The Viking Link Interconnector

2.1 The Viking Link Interconnector is a proposed 1400 megawatt ("MW") High Voltage Direct Current ("HVDC") electricity interconnector between the British and Danish electricity transmission systems, connecting at the National Grid Electricity Transmission plc ("NGET") Substation at Bicker Fen in Lincolnshire and Revising in south Jutland, Denmark. The Viking Link Interconnector will be approximately 760km long and will allow electricity to be exchanged between Great Britain and Denmark equivalent to approximately 1.3% of Great Britain's current usage.

2.2 The key components of the Viking Link Interconnector, which are shown on BoP1, are as follows:

2.3 The installation of approximately 650km of HVDC submarine cables, which will cross through UK, Dutch, German and Danish territorial waters in the North Sea and come ashore at "landfall points" in the UK and Denmark;

2.4 The construction of a converter station at each end of the interconnector in the UK and Denmark, which is required because both countries' existing electricity networks operate High Voltage Alternating Current ("HVAC") electricity transmission systems, so in order to transmit electricity between the two countries via the HVDC submarine cables it is necessary to convert the electricity between HVAC and HVDC, and vice versa;

2.5 The installation of underground onshore cables in the UK and Denmark, which will connect the landfall points to the convertor stations, and the convertor stations to existing sub-stations;

2.6 New equipment within the existing NGET Substation in the UK, where the Viking Link Interconnector will connect to the British National Electricity Transmission System ("NETS"); and

2.7 New equipment within an existing substation in Denmark to connect the Viking Link Interconnector to the Danish electricity transmission system.

Overview of the UK Onshore Scheme

2.8 The Order has been made to acquire the land and new rights required for that part of the Viking Link Interconnector comprising the UK Onshore Scheme, the main components of which are as follows:

2.8.1 At the proposed landfall, two (2) submarine HVDC cables will be installed through the Mean Low Water Springs ("MLWS") point on the beach, an onshore joint will be made which will connect the submarine and onshore cables in a Transition Joint Pit ("TJP");

2.8.2 From the TJP, two (2) onshore HVDC cables will be installed between the landfall at Boygrift in East Lindsey and the converter station at North Ing Drove in South Holland;

2.8.3 Construction of associated Temporary Construction Compounds ("TCC"), Temporary Works Areas ("TWA") and temporary vehicle access arrangements to facilitate construction work;

2.8.4 Erection of converter station buildings and outdoor electrical equipment together with the construction of internal roads, erection of security fencing and provision of landscaping at North Ing Drove in South Holland;

2.8.5 Construction of a permanent access road from the A52 to the converter station site including a bridge crossing over Hammond Beck;

2.8.6 Installation of six (6) onshore HVAC cables between the converter station at North Ing Drove and connection bays at the existing NGET Substation;

2.8.7 Installation of link pillars at joint bays along the HVAC cable route for inspection and maintenance purposes, which will be contained within fenced areas;

2.8.8 Installation of temporary and permanent land drainage works as well as provision of temporary water management areas to assist with construction activities; and

2.8.9 Installation of fibre-optic cable(s) with the HVDC cables for the purpose of monitoring cable performance and with the HVAC cables for the purpose of monitoring cable performance and communication along the HVAC route.

National Grid Viking Link Limited

2.9 The Viking Link Interconnector is being delivered by an unincorporated joint venture between NGVL and Energinet. The UK onshore elements of the Viking Link Interconnector will be delivered and operated by NGVL. The Danish onshore elements will be delivered and operated by Energinet. NGVL and Energinet will have joint responsibility for delivery of the offshore element.

2.10 NGVL is part of the National Grid group of companies but is separate from the National Grid systems operator which operates the high voltage transmission network in Great Britain and owns the high voltage transmission network in England and Wales.

2.11 Energinet is an independent public enterprise owned by the Danish state as represented by the Ministry of Energy, Utilities and Climate, which owns, operates and develops the Danish electricity and gas transmission systems.

2.12 Further details on the parties and their respective roles and responsibilities in delivering the Viking Link Interconnector are set out in section 11 below.

The role and benefits of Interconnectors

2.13 There is widespread consensus across the political spectrum in the UK that energy should be affordable; damaging greenhouse emissions need to be reduced; and energy supplies need to be reliable for businesses and consumers to facilitate the UK's economic recovery. Interconnectors can play a key role in supporting the modernisation and transformation of electricity generation in the UK.

2.14 UK Energy and Planning Policy recognises the need for and importance of new electricity infrastructure being developed and, in particular, recognises the benefits which interconnectors can bring to the UK.

2.15 It is recognised that in order to have a competitive, sustainable and secure supply of energy, there is a need to invest in new infrastructure and diversify the way in which the energy market operates. Electricity networks will need to be able to support a more complex system of supply and demand and cope with generation occurring in locations of greater diversity due to the increase in low carbon generating sources.

2.16 Interconnectors, such as the Viking Link Interconnector, will form an integral part of the UK's electricity networks and provide energy reliably whilst ensuring security of supply (i.e. in an emergency, interconnectors enable a system with a supply shortage to import power from a system with a surplus).

2.17 Paragraph 3.3.31 of The Overarching National Policy Statement for Energy (EN-1) (July 2011) (referred to in more detail in section 8 below) (CD5) sets out that the *"Government expects that demand side response, storage and interconnection, will play important roles in a low carbon electricity system"*.

2.18 Interconnection also assists in reducing the cost of electricity generation capacity by allowing electricity networks to balance supply and demand across international borders.

2.19 In December 2013, the Department of Energy and Climate Change (DECC) published the then UK Government's view of the need for further Interconnection in its policy document *'More Interconnection: improving energy security and lowering bills'*[1] (CD6). Evidence commissioned by the Government and published at that time showed that more interconnection could realise benefits for British consumers of up to £9 billion under some scenarios.

2.20 The National Infrastructure Commission ("NIC") '*National Infrastructure Assessment'*[2] published in July 2018 (CD7) reiterates the importance of interconnection:

"To date, carbon intensive fossil fuels have met some of this need by providing plenty of flexible supply. But as they come off the system in favour of (mostly variable) renewable energy, flexibility will need to be maintained in other ways… In all scenarios, extra flexibility, which includes technologies such as storage, interconnection and demand side response, is a low regrets investment which reduces estimated total energy system costs by between £1-7 billion per year on average between 2030 and 2050. This finding echoes the conclusions of the Commission's Smart Power report." **...**

"Interconnectors, of which there is a large pipeline of projects, are likely to become of increasing importance throughout this period, and the Government should ensure that the current pipeline is not affected by the UK's exit from the EU."

2.21 It is therefore clear that UK Government policy recognises interconnectors as a vital tool in managing energy security, costs to consumers and providing long term security and sustainability.

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1 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/266460/More_interconnection_-_improving_energy_security_and_lowering_bills.pdf

2 *https://www.nic.org.uk/wp-content/uploads/CCS001_CCS0618917350-001_NIC-NIA_Accessible.pdf*

3. THE POWER UNDER WHICH THE ORDER IS MADE

3.1 The Order was made under section 10 of and schedule 3 to the 1989 Act (CD2).

3.2 Section 10 of the 1989 Act (CD2) sets out that the powers in schedule 3 (which provides for the compulsory purchase of land) have effect in relation to the holder of an Electricity Interconnector Licence.

3.3 Paragraph 1(1) of Schedule 3 provides that:

"the Secretary of State may authorise a licence holder to purchase compulsorily any land required for any purpose connected with the carrying on of the activities which the licence holder is authorised by the licence to carry on."

3.4 Paragraph 1(2) of schedule 3 to the 1989 Act (CD2) confirms that "Land" includes any right over land, and that the Secretary of State's power includes power to authorise the compulsory purchase of rights over land by creating new rights, as well as acquiring existing ones.

3.5 NGVL holds an Electricity Interconnector Licence dated 12th November 2014 ("Licence") (CD1) granted by the Gas and Electricity Markets Authority under section 6(1)(e) of the 1989 Act. The activity which NGVL is authorised to carry on by virtue of the Licence is the participation in the operation of the Viking Link Interconnector between Great Britain (NGET Substation) and Denmark (Revsing).

3.6 The Licence incorporates the Electricity Interconnector Licence: Standard Conditions (CD 8). It does not include any special conditions.

3.7 Standard Condition 7 (Compulsory acquisition of land etc.) (CD8) confirms that the powers and rights conferred by or under schedule 3 of the 1989 Act (CD2) shall have effect in relation to the licensee (i.e. NGVL) to enable the licensee to carry on the activities authorised by his licence and which relate to: (a) the construction or extension of the licensee's interconnector (i.e. the Viking Link Interconnector); or (b) activities connected with the construction or extension of the licensee's interconnector or connected with the operation of the licensees' interconnector.

3.8 NGVL may therefore be authorised to purchase compulsorily land and/or rights required to enable NGVL to carry on the activities authorised by the Licence and in particular to purchase the land and rights required to enable it to construct or extend the Viking Link Interconnector or for activities connected with the Viking Link Interconnector's construction, extension or operation. All of the land and rights in land proposed to be acquired under the Order are needed for these purposes. (Please see section 6 below for a detailed explanation of the need for the land and rights over land.)

3.9 The overriding test with which the Secretary of State must be satisfied in order to confirm the Order is whether there is a compelling case in the public interest to justify the proposed interference with the private rights of those who have interests in the Order Land (paragraph 12 of the CPO Guidance) (CD3).

3.10 There are a number of general considerations set out in the CPO Guidance (CD3) that NGVL needs to demonstrate to the satisfaction of the Secretary of State:

3.10.1 That NGVL has a clear idea of how it intends to use the land (or new rights over land) which it is proposing to acquire (paragraph 13 of the CPO Guidance) (CD3). This is addressed in section 6 below of this Statement.

3.10.2 That the Viking Link Interconnector is unlikely to be blocked by any physical or legal impediments to implementation. These include:

3.10.2.1 the programming of any infrastructure accommodation works or remedial work which may be required; and

3.10.2.2 any need for planning permission or other consent or licence (paragraph 15 of the CPO Guidance) (CD3). This is addressed in section 9 below of this Statement;

3.10.3 That all the necessary resources are likely to be available within a reasonable time-scale, in particular that funding is available now or will be available early in the process for both acquiring the necessary land/rights over land and implementing the Viking Link Interconnector (paragraphs 13 and 14 of the CPO Guidance) (CD3)**.** This is addressed in section 11 below of this Statement.

3.10.4 That the purposes for which the compulsory purchase order is made justify interfering with the human rights of those with an interest in the land affected and particular consideration should be given to the provisions of Article 1 of the First Protocol to the Convention for the Protection of Fundamental Rights and Freedoms ("Convention") (CD 9) and, in the case of a dwelling, Article 8 of the Convention (paragraph 12 of the CPO Guidance) (CD3). This is addressed in section 14 below of this Statement.

3.10.5 That NGVL has taken reasonable steps to acquire all of the land and rights included in the Order by agreement (paragraph 2 of the CPO Guidance) (CD3). This is addressed in section 10 below of this Statement.

3.11 Additional tests must be satisfied where special kinds of land are proposed to be acquired. These are addressed in section 15 below.

4. OVERVIEW OF THE ORDER LAND

4.1 The Order Land is shown on the Order Maps that accompany the Order. A plan showing an overview of the cable route (Index Sheet) can be found at BoP2.

4.2 The Order Land is described in more detail below, but in summary, the main areas are as follows:

4.2.1 Landfall point: at Boygrift in East Lindsey near Sandilands on the Lincolnshire coast;

4.2.2 HVDC cable route: approximately 68 km (42 miles) in length between the landfall point and the converter station;

4.2.3 Converter station: a total footprint of approximately 30ha including landscaping at North Ing Drove, South Holland;

4.2.4 HVAC cable route: approximately 2 km (1 ¼ miles) in length between the converter station and the connection point; and

4.2.5 Connection point: at the existing NGET Substation at Bicker Fen.

4.3 The section of the Order Land between the landfall point and the converter station will have HVDC cables installed within it and is referred to as the "HVDC route"; the remainder of the Order Land (from the converter station to the NGET Substation) will have HVAC cables installed within it and is referred to as the "HVAC route".

4.4 The HVDC route begins at MLWS at Boygrift in East Lindsey where it overlaps with the Offshore Scheme. A buried TJP (where the submarine cable is connected to the onshore cable) will be installed on the west side of the existing flood defences. From the TJP the proposed HVDC route heads in a generally western direction for approximately 9 km through a predominantly low lying coastal area until it reaches the A1104. At this location the proposed HVDC route bears mainly south west or south for approximately 20 km through more elevated land including crossing the Lincolnshire Wolds Area of Outstanding Natural Beauty ("AONB") and continues south west until it reaches the A16. From here the proposed HVDC route crosses the low lying fens in a mainly south western or southern direction for approximately 37 km. At South Forty Foot Drain it turns east to cross it before continuing south / south east entering the proposed converter station site at its south western corner. The HVAC route then heads north east after leaving the converter station for approximately 1.5 km through several fields before connecting, from the south east, to the existing NGET Substation at Bicker Fen.

4.5 The Order Land is primarily arable with some grass land. There are a number of key features along the HVDC route including the following:

4.5.1 The Sandhills (see further paragraph 15.11 below);

4.5.2 Sandilands Golf Course;

4.5.3 the Lincolnshire Wolds AONB;

4.5.4 road crossings of the A52, A111, A1104, A16, A158 and A17;

4.5.5 the West Fen Drain and the South Forty Foot Drain both of which are classified as main rivers and for which the Environment Agency has responsibility;

4.5.6 the River Witham;

4.5.7 and a Network Rail crossing close to Swineshead.

4.6 The agricultural land is a mixture of mainly Agricultural Land Classification ("ALC") Grade 1, 2 and 3 land.

HVDC Cable

4.7 The land to the north east of the route, between the landfall and Alford is gently undulated land on the coastal plain. It has medium to heavy loam soils growing winter combinable crops of wheat, barley and oilseed rape. There are several small fields of grass used for grazing or poultry ranges. Land quality in this area is good to moderate being mainly of ALC grade 3a and 3b quality with localised patches of very good ALC grade 2 land.

4.8 The central section of the route, between Alford and West Keal, crosses undulating land on the Lincolnshire Wolds where soils are light to medium loam and often shallow, overlying chalk on the elevated sections. This land is used to grow mainly winter combinable crops of wheat, barley and oilseed rape with occasional break crops of sugar beet, spring maize, potatoes, peas or field beans where soils are deeper and more freely drained. Land quality in this area is good or very good, ALC 2 and 3a.

4.9 The southern section of the route, between Stickford and Bicker is fen land. Soils vary from heavy loams to light or medium silty loams. Heavier land is generally cropped with winter combinable crops of cereals and oilseed rape and is usually good quality ALC subgrade 3a. More extensive tracts of light or medium silty soils, close to the River Witham and south of the A17 are very productive and include vegetables and root crops. This land is good or very good quality ALC grade 2 and subgrade 3a with localised areas of excellent quality ALC grade 1 land.

HVAC Cable

4.10 The HVAC route occupies fen land typically with medium loam soils occupying silt ridges and heavy loam in clayey hollows. This area is a mixture of arable and grazing land.

Converter Station Site and Access Road

4.11 The converter station site is located in fen land with medium loam soils occupying silt ridges and heavy loam in clayey hollows. This land is used for growing mainly winter combinable crops of wheat, barley and oilseed rape with occasional potato or vegetable crops. This land is very good quality land classified mainly as ALC Grade 2. The access road intersects land mainly of good or very good quality classified as ALC grades 2 and 3a and is used for growing winter combinable crops of wheat, oilseed rape and barley with occasional spring break crops of linseed or Maize. To the east of the access road the land is very productive and includes vegetable, root and cereal crops in rotation.

Existing Land Drainage Schemes

4.12 Approximately 85% of the Order Land comprises agricultural land that requires a drainage scheme to enable it to be productively farmed. Land drainage encourages the movement of water vertically, by gravity, from the surface of the soil to natural drainage points known as outfalls, which might include pipes, ditches, ponds, streams and ultimately rivers or the sea. The remaining 15% of the Order Land, consists of shallow chalk or free draining sands, and requires less intensive drainage or has none.

4.13 The existing land drainage schemes affected by the UK Onshore Scheme were most likely installed from the early 20th century to the present day. Most of the land was re-drained in the 1970-1980's with grant funding support from the Government. Land drains usually lie within a depth of about 1.2m of the soil surface and have a typical lifespan of 10-40 years. Landowners often hold record plans and in many cases these have been made available to NGVL during drainage surveys.

4.14 In the northern section of the HVDC Route, between the landfall and Alford, most drainage relies on larger pipes, or mains, laid at 0.9m-1.2m depth that collect water from smaller pipes, laid at a similar depth and in herringbone patterns in fields. These are referred to as mains systems. The mains move water by gravity to outfall points, usually larger ditches and drains, some of which are controlled by local Internal Drainage Boards ("IDBs"). There will be occasional deeper drains installed to a maximum depth of c 2.0m.

4.15 In the central section between Alford and West Keal, the land is intensively drained locally where systems usually occupy valleys, areas affected by spring lines, patches of clay soils or transitionary soil profiles on the lower slopes skirting nearby marsh or fen land. Shallow soils overlying chalk between Ulceby and Langton and free draining sands close to Raithby have limited or no drainage schemes.

4.16 The fen land to the south of the route is low lying, being at or below sea level, and is drained with both mains individual outfall systems into farm ditches and IDB controlled watercourses. Individual outfall systems are usually laid at a depth of 0.8-1.2m. Locally there may be situations where the drains will be deeper, exceptionally to 2.0m or more. Individual outfall systems tend to be more easily managed. The smaller ditches outfall into larger and well maintained IDB controlled arterial ditches or watercourses. Water levels in these larger ditches and drains are controlled seasonally by large sluices and associated pumped drainage systems. This can lead to high water levels in farm ditches throughout the summer months.

4.17 There are occasional residential properties near to the Order Land along the HVDC route, but whilst there are no residential properties within the Order Land, rights are proposed to be acquired within the curtilage of a residential property.

4.18 There are multiple other land interests along the cable routes in respect of infrastructure and utility assets owned and operated by statutory undertakers, including the Environment Agency, Canal and River Trust, three IDBs, Anglian Water, National Grid Gas, Cadent Gas Limited and Western Power Distribution. In all cases negotiations are ongoing to comply with specific design, routeing and engineering requirements to meet asset protection protocols and utilise safe working methods required by the relevant authority.

5. DEVELOPMENT OF THE UK ONSHORE SCHEME AND THE ROUTE SELECTION PROCESS

5.1 This section explains the main factors which have influenced the development and routeing of the UK Onshore Scheme.

Choice of Technology: HVDC v HVAC

5.2 The Viking Link Interconnector proposes to use HVDC technology because it will be more efficient at transmitting electricity between the UK and Denmark than an HVAC system. This is due to the physical distances involved. At longer distances HVDC technology is more efficient as it can transmit larger volumes of electricity with fewer losses than an equivalent HVAC system. Furthermore, the existing HVAC networks in both countries are not synchronised, which means that they operate at different frequencies which would prevent direct HVAC inter-connection.

Overview of Route Selection Process

5.3 The development of the UK Onshore Scheme comprised two main steps; firstly, the identification and assessment of alternative landfall and converter station sites (Siting) and secondly the identification and assessment of alternative cable routes (Routeing). The approach to identifying and assessing alternative sites and routes ensured the integrated and iterative consideration of potential impacts on the environment and local communities, alongside technical and engineering considerations, and at key stages also drew upon feedback received from statutory and non-statutory consultees and members of the public. This approach identified sites or routes which best balanced these factors, before establishing the landfall and converter station sites and HVDC route.

Approach to Landfall Siting

5.4 The identification of the landfall site to bring the submarine cables ashore and connect to the onshore cables was undertaken following a landfall siting assessment. Following the identification of the connection point at the existing NGET Substation a study area was identified extending between Sutton on Sea in the north and Skegness in the south in order to ensure that potential landfall sites could be identified which would facilitate the development of (1) feasible and economic underground HVDC cable routes to potential converter station sites in the vicinity of the connection point and (2) feasible and economic submarine HVDC cable routes to Denmark.

5.5 Taking into account the findings of the technical and environmental assessments of the shortlisted landfall sites as well as the feedback received in response to the Phase 1 Consultation, NGVL selected 'LF1a' (i.e. Boygrift in East Lindsey) as the preferred landfall site. This is illustrated in Figure 2.5 in the Environmental Statement ("ES") (CD10.1). This site meets the requirements of NGVL; it is technically feasible from the onshore and offshore point of view and, compared to alternative landfall sites, it provides the opportunity to avoid or reduce the potential impact on nearby communities and other coastal environmental constraints such as the Lincolnshire Coastal Grazing Marshes (LCGM) and designated bathing waters.

Approach to Converter Station Siting

5.6 This involved the identification and assessment of potential alternative sites for a converter station in the vicinity of the NGET substation where the HVDC electricity will be converted to HVAC electricity (HVAC being the form suitable for transmission via the NETS). Following the identification of the connection point at the existing Bicker Fen 400 kV Substation, a

study area extending out 5 km in all directions from the connection point was established based on NGVL's technical requirements.

5.7 The identification and assessment of alternative sites took into account a range of environmental and technical constraints, including the proximity of settlements, individual residential properties and sites designated for their landscape, ecological and/or archaeological interests or value; areas of flood risk; and technical considerations such as the approximate footprint of a converter station and accessibility. Potential impacts on the environment and local communities alongside technical and engineering factors were also considered. Feedback received from consultation as well as the findings of environmental and technical assessments then informed the selection of the preferred site at North Ing Drove in which to develop the design of the converter station.

5.8 On balance of the different factors evaluated, this site is considered to best meet the requirements of NGVL; it is technically feasible and, compared to the alternative sites considered, it provides the opportunity to mitigate potential impacts on the environment and local community through planning and design.

Overview of approach to Cable Routeing

5.9 The overall objective of the routeing assessment was the identification of a route corridor within which the detailed alignment of the HVDC and HVAC cables would be finalised. The approach to cable routeing comprised three main steps/stages:

5.9.1 Stage 1- Identification of the Cable Route Search Area based on the shortlisted landfall and converter station sites;.

5.9.2 Stage 2- Development and Assessment of Cable Route Corridors; and

5.9.3 Stage 3- Development of Route Alignment with the identification of a cable route corridor.

HVDC Cable Routeing Considerations

5.10 The development of the proposed HVDC route is explained in detail in the following documents: (1) Route Corridor Selection Report (CD11) (2) Preferred Route Report (CD12) and (3) the ES in chapters 2 and 5 (CD10.2 and 10.3).

5.11 As explained in section 5.9 above, the routeing process was undertaken in a number of stages. During each stage, consideration was given to a range of environmental, planning, technical, engineering and cost factors as well as feedback from consultation with statutory consultees and other stakeholders, including feedback from local communities. The level of information considered increased in detail as route corridors were narrowed down to route alignments.

5.12 The key routeing considerations are described in detail in the Route Corridor Selection Report but in summary included:

5.12.1 **Environmental and planning factors** – for example, the location and potential to impact on environmental constraints such as designated sites (ecology, heritage and landscape related with either international, national or local designations); the location and potential to impact on settlements and visitor/community facilities; the nature of agricultural land and soil characteristics traversed by route corridors as well as relevant national and local planning policies.

5.12.2 **Technical and engineering factors** – for example, physical constraints including topography; the need to cross man-made and natural obstacles such as watercourses and other infrastructure; construction requirements, including access to route corridors as well as other temporary requirements including construction compounds or works areas.

5.13 The routeing study resulted in the identification of two route corridor options, known as the Purple and Orange Route Corridors, which were then subject to consultation (referred to as Phase 2 Consultation). The results of this consultation are reported in the Phase 2 Consultation Feedback Report (CD13) and were evaluated alongside key routeing considerations. This concluded in the Purple Route Corridor being identified as the preferred route corridor option. The reasons underpinning this are described in the Preferred Route Corridor Report and chapter 2 (CD10.2) of the ES. In summary the reasons for this included:

5.13.1 **Crossing requirements:** The Purple Route Corridor requires significantly fewer crossings (watercourses, drains, roads and other utilities) than the Orange Route Corridor. An increase in the number of crossings will, for example, have an increase on the land requirements and environmental impact for the UK Onshore Scheme during construction because more land is required to accommodate the specialist plant and machinery needed to construct crossings. The area of land required for permanent rights is also wider at crossings, as explained in section 6 below.

5.13.2 **Dewatering requirements:** The Purple Route Corridor crosses land with a lower water table meaning dewatering requirements are less. An increase in dewatering requirements, will, for example, increase the land requirement and environmental impact during construction as more land is required to accommodate water management including pumps, generators and storage lagoons.

5.13.3 **Access requirements:** The Purple Route Corridor is in closer proximity to the main road network and so benefits from better accessibility. The Orange Route Corridor would require additional accesses to be established which, for example, increase the land take and environmental impact during construction as more land is required to establish the access roads needed.

5.13.4 **Impact on local community:** The Purple Route Corridor typically avoids larger settlements whilst the Orange Route Corridor is in closer proximity to a number of these. As a result the Orange Route Corridor would affect more residents during construction and this impact would be amplified by the increased duration of construction and related vehicle movements caused by the additional crossing requirements.

5.13.5 **Impact on agriculture:** The Purple Route Corridor traverses less sensitive soils than the Orange Route Corridor, requires less land take during construction and would take less time to construct meaning that it has less of an impact on agricultural land than the Orange Route Corridor.

5.14 Within the Purple Corridor, the route alignment has been developed, taking into account the results of environmental studies and surveys, engineering requirements as well as, where possible, feedback received through consultation and from potentially affected landowners. This process is described in chapter 5 of the ES (CD10.3).

5.15 Key considerations which informed the identification of the proposed HVDC route alignment included:

5.15.1 The proximity to and potential to impact on residential properties (including their private gardens).

5.15.2 The proximity to and potential to impact on sites or features of environmental value or interest including designated sites or sites identified within local plans.

5.15.3 The number of and approach to crossing drains, watercourses, roads, railways and other utilities.

5.15.4 The application of a minimum horizontal cable bending radius of 30 m wherever possible to minimise friction on cable pulls during installation.

5.15.5 The proximity to and limitations of the local road network for use by construction traffic during cable installation.

5.15.6 Topographical features and underlying ground conditions including steep slopes and a high water table.

5.15.7 The potential to impact on agricultural activities and land drainage.

5.15.8 The proximity to and potential to impact on other existing or proposed infrastructure.

5.15.9 Feedback from potentially affected landowners.

HVAC Cable Routeing Considerations

5.16 The development of the proposed HVAC cable route broadly followed a process equivalent to that described for the HVDC route above albeit on a smaller more local scale, reflecting the shorter nature of potential route options due to the proximity of the converter station site at North Ing Drove to the connection point at NGET Substation. The key routeing considerations included:

5.16.1 The location of the switch bays required in the NGET Substation (to which the Viking Link Interconnector will connect);

5.16.2 The potential temporary and permanent land take required;

5.16.3 The potential impact on agricultural land and the associated land drainage;

5.16.4 The requirement to cross drains and other obstacles;

5.16.5 Feedback from potentially affected landowners, occupiers and members of the local community.

5.17 Three route options were considered as described in the ES, chapter 17 (CD10.4); these are referred to as the eastern, southern and western route options. The eastern route option was identified as the preferred option as, compared with the other options, it best balances technical and engineering requirements with the impact on agricultural land use.

5.18 Whilst the southern option was the shortest, most direct option and required fewer crossings, the requirement to route HVAC cables through Bicker Fen Wind Farm and within the NGET Substation was identified as a significant technical constraint. The western option is the longest option requiring the most crossings of drains and other infrastructure. As a result, the western option would require the greatest land take during construction and

operation. This would include wider areas where crossings of drains and other infrastructure are required to be deeper.

5.19 The proposed HVAC route alignment has been further refined taking into account feedback from affected landowners as far as possible whilst also taking into consideration technical factors including requirements established by NGET as well as constraints posed by the Triton Knoll Offshore Wind Farm Electrical System.

6. DESCRIPTION OF THE UK ONSHORE SCHEME

Introduction to HVAC and HVDC routes

6.1 The land and new rights proposed to be acquired within the Order Land are needed to enable the installation and operation of the UK Onshore Scheme. A summary of the works that comprise the UK Onshore Scheme is provided at paragraphs 2.2 to 2.8 above. This section 6 provides further detail on:

6.1.1 the infrastructure that will be installed;

6.1.2 the construction works that are required; and

6.1.3 the spatial extent of the land and new rights that are needed to facilitate the construction, operation and future maintenance of the UK Onshore Scheme.

6.2 NGVL has developed a base scheme design for the UK Onshore Scheme for the purposes of seeking planning permission and promoting the Order. This was informed by a wide range of surveys and assessments, including ecological surveys, geophysical surveys, ground investigations (e.g. boreholes), soil surveys, and land drainage assessments. The appointed civil and cable contractors will be responsible for further developing the detailed design, including matters such as route alignment, micro siting and identifying joint bay locations. The procurement process which will lead to the appointment of the civil and cable contractors is ongoing. It is currently anticipated that contracts will be awarded in Q2 2019.

6.3 Throughout the development of the project NGVL has had regard to the Construction (Design and Management) Regulations 2015 ("CDM") (CD14) in its design of the UK Onshore Scheme. CDM ensures health and safety is coordinated and managed throughout all stages of a construction project (including during the development, design, construction and procurement stages) in order to reduce the risk of harm to those who have to build, use and maintain structures. In particular these requirements have influenced the design and the areas required for construction, including but not limited to, compounds and access roads.

6.4 As a result, the final alignment and width of the corridor within which the cable infrastructure will be installed is not yet known. This will be influenced by factors including: whether it is HVDC route or HVAC route; the choice and length of cables used; the varying ground conditions, topography and obstacles which are anticipated to be encountered along the route; and the different construction/installation techniques which may need to be used as a result. These factors are explained in more detail below.

6.5 The part of the cable route between the landfall point at Boygrift and the converter station site at North Ing Drove will utilise HVDC technology, while the remainder (between the converter station and substation at Bicker Fen) will utilise HVAC technology. The extent of land over which rights will be required for construction and operation varies for each of these technologies. These are considered in turn below.

HVDC Route

HVDC Route - Landfall

6.6 The UK Onshore Scheme starts at a 'Landfall Zone' at Boygrift in East Lindsey where the submarine cables come ashore. The Landfall Zone extends from MLWS across the intertidal zone. Two submarine HVDC cables and one fibre optic cable will be installed in up to four ducts within the Landfall Zone. The ducts will be approximately 15 metres apart, measured from their centre points. They will be installed below the existing sea defences using the

Horizontal Directional Drilling ("HDD") construction technique. The exact position and spacing of the cables will be finalised during detailed design.

6.7 The submarine cables terminate at a buried TJP located inland of the existing sea defences to the west of Roman Bank, where they are connected to the underground onshore cables.

6.8 The Order Land boundary is wider at the landfall point due to factors which include, but are not limited to:

6.8.1 The criticality and high risk of the HDD operation for the project;

6.8.2 Complexity of the Landfall HDD operation, due to the depth and length of the HDD ducts;

6.8.3 Unknown ground conditions that cannot be identified until the HDD operations take place;

6.8.4 Size of the specialist equipment needed to complete the HDD operation; and

6.8.5 Site establishment, storage of installation material, safe access and egress and the working area required to complete the HDD operation.

6.9 A package of "Landfall Zone Rights" will need to be acquired to enable installation of the submarine and underground onshore cables and construction of the TJP which connects them as explained in paragraphs 7.26 and 7.27 of this Statement. These rights will enable construction, operation maintenance and decommissioning of the infrastructure within the Landfall Zone.

HVDC Route – description

6.10 The HVDC route runs underground for approximately 68Km from the Landfall Zone to the converter station at North Ing Drove.

6.11 The HVDC route will comprise of two HVDC cables, together with two fibre optic cables for the purpose of monitoring cable performance, all installed in a single trench.

6.12 Construction of the HVDC cable will be undertaken using a combination of:

6.12.1 trenched installation techniques across open land, with the cables being directly installed or installed within buried ducts, surrounded by a thermally suitable material; and

6.12.2 trenchless methods, such as HDD, to cross obstacles where appropriate, including (but not limited to) roads, railway lines, buried utilities and watercourses.

6.13 The HVDC land rights corridor, shown coloured blue on Order Maps 1-42, is in general approximately 60m in width. Construction will typically be carried out within a 30m working width, however rights to construct the HVDC route are required over a wider circa 60m land rights corridor for reasons including the following:

6.13.1 the space required at crossing points (see paragraphs 6.20 to 6.22 below);

6.13.2 the space required for access and egress, vehicles, equipment, and site establishment to install a cable joint bay (60m);

6.13.3 the need to allow sufficient flexibility to enable the cable to be routed around any obstacles/constraints which may be encountered during construction, including but not limited to archaeology; and

6.13.4 The need for flexibility in locating the cable joint bays along the route due to further route optimisation to be completed in detailed design.

6.14 Cable joint bays are where two adjacent sections of cable have been installed and are subsequently joined together. BoP3 is a cross-sectional representation of a typical joint bay. Within the HVDC corridor, a construction area of 60m is required to allow space for specialist cable delivery vehicles and installation equipment, site set up and welfare access, and emergency access at the point of works.

6.15 At this stage in the design process NGVL does not know where the joint bays will be located along the route. Joint bay locations will be determined during detailed design in coordination between the Cable and Civil contractors post contract award in Q2 and Q3 2019 respectively. The joint bay locations will consider the logistics of cable delivery lengths and cable installation calculations and design, to see if cable lengths can be increased in certain areas, with the intention of minimising the number of joint bays needed. Accordingly, it is necessary for NGVL to seek Cable Construction Rights across the entire circa 60m corridor in order to ensure that cable joint bays can be appropriately sited.

HVDC Route - during Construction

Trenched installation

6.16 The construction of the HVDC route will typically be undertaken using trenched installation.

6.17 BoP4 is a cross-sectional representation of the construction corridor within which the two HVDC cables will be installed using trenched installation.

6.18 With the exception of cable joint bays, trenched installation will typically take place within a 30m 'working width', and will involve the following:

6.18.1 Cable trench: this is the excavation within which the two HVDC cables will be installed, likely in ducts, within one trench, together with two fibre optic cables required for monitoring purposes.

6.18.2 Working areas: these are areas on either side of the trench which are needed to allow the safe and efficient movement of the personnel, plant and machinery used to perform the construction activities required, including trench excavation, cable installation and reinstatement. These areas will also include defined walkways along the cable route for the construction team.

6.18.3 Topsoil bund: this area will be used for the storage of topsoil. Given that the cable will be installed predominantly within high quality agricultural land, it will be important to separate and store the topsoil in a way that maintains its integrity and structure as per the requirements of a Soil Handling and Storage Protocol ("SHSP") (CD15). The topsoil would be stripped and stockpiled adjacent to the area stripped to ensure the soil is returned to the same area during reinstatement.

6.18.4 Subsoil bund: this area will be used to store the soil that has been excavated to create the trench. The sub soil removed from the trench will be stockpiled adjacent to the area where it was removed from to ensure the soil is returned to the same area during reinstatement and would be stored away from the topsoil

to prevent mixing of soil types. It will also need to be stored in a manner that maintains its integrity and structure as per the requirements of a SHSP (CD15) as it will be used to backfill and reinstate the trench after the ducts, cable, and cable joints have been installed. Any subsoil remaining after reinstatement will be disposed of as per the requirements of the Waste Management Plan ("WMP") (CD16).

6.18.5 Temporary haul road and passing places: the working width will include a haul road for construction traffic along the cable route. This will need to be wider in certain places to allow vehicles to safely pass each other. The haul road will typically be 5m wide, increasing to up to 10m where there are passing places. This is particularly important to ensure access in the event of an emergency. The haul road will have a slightly different orientation at joint bays to allow the specialist drum trailer to move into position to enable the cable to be pulled in to position. By including a haul road, NGVL can minimise the amount of construction-related traffic that will need to use public roads. The haul road material will be specified during detailed design.

6.18.6 Fence: to ensure compliance with the CDM Regulations the working width will be fenced off to define the area in which construction activities will be undertaken.

6.19 A package of "Cable Construction Rights" will need to be acquired to enable construction as explained in paragraphs 7.9 and 7.10 of this Statement.

Trenchless Installation

6.20 As noted at paragraph 6.13.1 above there are a number of points along the HVDC route where the cables need to 'cross' (i.e. be installed beneath) obstacles such as roads, railway lines, certain utilities and watercourses. The construction area needs to be wider than 30m at these points to allow space for the specialist installation equipment (such as HDD) to be used.

6.21 NGVL has sought to identify so far as practicable the obstacles along the HVDC route which will need to be 'crossed'. These have been grouped wherever possible so that a number of them can be crossed by a single trenchless installation arrangement (e.g. road and cables located in the verge). The need for further trenchless installations maybe identified during construction.

6.22 BoP5 shows a typical cross-sectional representation of a small watercourse crossing where a trenchless installation will be carried out. It shows a temporary bridge which would be installed to allow construction and emergency vehicles access across the watercourse (with materials and equipment sited at both ends of the HDD) during the works.

6.23 BoP 6 shows a dead end where a temporary bridge cannot be used to cross the watercourse or obstruction.

HVDC Route – Operation and Maintenance

6.24 A package of "DC Cable Rights" will need to be acquired over the corridor of land in which the electrical equipment is located to enable it to be operated, repaired, maintained, decommissioned and protected from interference. The area of land required for the installed infrastructure during its operation and maintenance phase will differ depending upon the type of construction technique that has been used, i.e. whether trenched or trenchless techniques have been employed.

6.25 Where HDD has been used the "DC Cable Rights" may be acquired over a corridor up to 25m wide. In all other cases the "DC Cable Rights" may be acquired over a corridor of up to 15m wide. Section 7 below discusses the land rights 'packages' in more detail. The following sections explain:

6.25.1 what the installed infrastructure will comprise of and the likely layout of it that gives rise to the need for those rights;

6.25.2 why the width of the area over which permanent rights are required is different to that over which construction rights are sought and also varies depending upon construction technique used; and

6.25.3 why the ability to access the Cable Corridor to carry out repair and maintenance work is critical to ensure the safety of the landowner and/or public and the efficient operation of the cables.

6.26 The installed infrastructure will comprise the following:

6.26.1 Two (2) HVDC power cables contained within plastic ducts, beneath protective tiles, warning tape and surrounded by a suitable engineering material;

6.26.2 Parallel to the HVDC cables, a fibre optic cable within a smaller plastic duct; and

6.26.3 Cable joints to connect the ends of two separate HVDC cable sections together. (The cable joints will be buried in a similar manner to that described above, but without ducts.)

6.27 The only equipment above ground will be the marker posts, outlining the cable route, which are usually installed at field boundaries at appropriate locations with positions agreed with the landowner.

<u>Trenched installation</u>

6.28 The corridor over which the HVDC Cable Rights will be acquired is smaller than the width of the construction corridor.

6.29 The main reasons for the difference in width are as follows:

6.29.1 The logistics of installing the cable during the construction phase differ from those required for carrying out operation and maintenance activities, including fault repair. The type of plant, machinery and vehicles required during the construction phase are generally much larger than those which can be used for operation, maintenance and repairs.

6.29.2 It is anticipated that as a result of the types of plant, machinery and vehicles which are required during construction that the existing road network within the area will not be adequate to provide regular access points without causing significant disruption to the local population. As a result, it is proposed that the construction corridor would contain a significant haul road, suitable for two-way traffic along the entire cable route to enable movement of all plant, machinery and vehicles with suitable access points only being taken from the local road network.

6.29.3 During the construction phase there will be significantly more material excavated and imported along the full cable route. This excavated material will need to be

stored locally, along the route. The handling of the various materials also requires a large space during construction due to the increased volume.

6.29.4 During construction more efficient working methods are adopted which often require a larger working area to perform. Reduced working width methodologies can also be adopted for constrained works in localised areas such as for operation, maintenance and repairs however, it is not practical or efficient to construct an entire route under these constraints.

Trenchless installation

6.30 Where trenchless installation is used, the depth at which the ducts need to be installed under the obstruction will define the spacing needed between the two ducts (within which the cables will be installed) and also the distance between the entry and exit pits. These features will vary at the different crossing points along the route and will be determined during detailed design. The depth will be guided by the nature of the obstacle to be 'crossed' beneath and the requirements of the organisation responsible for the obstacle, whilst the spacing will depend on the nature/condition of the ground and its ability to absorb and transfer heat away from the cables.

Need for the HVDC Cable Rights

6.31 The HVDC Cable Rights are required to enable operation and future routine maintenance and/or repairs to the cable system. While cable systems are highly reliable, faults may occur and repairs subsequently need to be carried out.

6.32 The HVDC Cable Rights are also required to ensure that access to the cables for the purposes of maintenance and repair is not impeded, and to protect the cables and associated apparatus from interference by, and /or damage resulting from the actions of third parties, such as the owners and occupiers of the land in particular, and to protect such persons from associated physical harm or injury.

The Converter Station Site

6.33 The proposed site for the converter station at North Ing Drove in South Holland, Bicker Fen, occupies a single field of approximately 30ha that is currently used for agricultural purposes.

6.34 At the converter station electricity will be converted from HVDC (which is the form in which it will be transmitted through the submarine and onshore underground cables to or from Denmark) to HVAC (which is the form required for the connection to the existing 400kV Bicker Fen substation). As explained in paragraph 7.2 below, freehold acquisition is required of the land for the converter station site.

Converter Station Layout

6.35 The converter station layout is illustrated on BoP7, Proposed Converter Station: Base Design Layout.

6.36 The component parts are described in more detail below.

Buildings and outdoor electrical equipment - shown coloured blue

6.37 This area will comprise (1) buildings which house indoor electrical equipment, and (2) outdoor electrical electrical equipment, as follows:

6.37.1 HVDC switch hall: this is where the HVDC cables are terminated.

6.37.2 Valve Halls and HVAC reactor (ancillary equipment): this building contains the HVDC to HVAC converter equipment.

6.37.3 Control building: This contains the operator work stations for operating the converter station as well as control, protection and telecommunication equipment. Office space, welfare facilities and other auxiliary systems are also located within the control building.

6.37.4 Transformers: these are normally located outdoors and adjacent to the Valve Hall to change the HVAC voltage electricity between the voltage needed for transmission via the HVAC transmission system and the voltage needed for the HVAC to HVDC converters within the Valve Halls. The transformers are separated from each other and the Valve Halls by firewalls.

6.37.5 HVAC switchyard: this includes a range of outdoor electrical equipment including harmonic filters, circuit breakers, measurement transformers.

6.37.6 Diesel Generator: this would be used in the event of a failure of the low voltage electricity supply provided by the Distribution Network Operator (DNO).

6.37.7 Spare parts Building: this building houses spare parts and components. Adjacent hardstanding areas provide storage for a spare transformer and spare cable drums.

Landscape Screening- shown coloured light and dark green

6.38 It is a requirement under the planning permission from South Holland District Council that landscaping be planted to screen the converter station from nearby visual receptors.

6.39 Screening will be achieved through a combination of tree and shrub planting, earthworks and boundary treatments such as hedgerows to help integrate the site into the surrounding landscape with the aim of making it less conspicuous. Sufficient space has been allowed between the closest point of the security fencing (shown coloured pink on BoP7) and the outer boundary of the converter station site (indicated by a dashed black line on BoP7) to accommodate a variable width of landscape screening up to 40 metre creating a 'green' perimeter around the converter station site.

Security perimeter zone and perimeter road zone- shown coloured pink and grey respectively

6.40 This comprises an 8 metre wide '*buffer*' zone within which security fencing would be erected and incorporates security gates for pedestrian and vehicle access/egress to/from the convertor station. Closed circuit TV (CCTV) cameras will be installed at regular intervals within this area.

6.41 It also compromises of a permanent perimeter road around the converter station to facilitate access based on the largest vehicles which will require access to the site as well as appropriate clearances.

Hardstanding Zone - shown coloured brown

6.42 The hardstanding will be provided for car parking, laydown areas, equipment storage and temporary offices for future maintenance activities.

Construction laydown area/'Reinstated Zone'- shown hatched black

6.43 During construction of the converter station, HVDC and HVAC routes and landscaping works, the area hatched black will be used for but not limited to:

6.43.1 Site accommodation, laydown areas, car parking and welfare facilities for the converter station and HVAC cable works.

6.43.2 Excavation of soil to facilitate re-profiling the site for the converter station.

6.43.3 HVAC and HVDC cable route installation works, which would include the need for haul roads and the CDM area as described in paragraphs 6.18.5 and 6.18.6 and 6.55.5 and 6.55.6.

Attenuation zone - shown hatched red

6.44 This area is required to establish an attenuation pond which will comprise part of the permanent drainage scheme for the converter site.

Converter Station Access Road shown coloured pink on Order Maps 42, 43 and 44

6.45 Access to the proposed converter station site is currently provided by a network of local roads, however, these are considered unsuitable due to a combination of their size, condition and the potential impact on the local community. In order to provide access for construction of the proposed converter station and operational traffic, a new permanent access road is to be constructed from the A52 to the proposed converter station.

6.46 The access road is approximately 2.8 kilometres long and 6 metres wide. The width is necessary to accommodate two-way traffic and construction vehicles, including Abnormal Indivisible Loads. Security gates will be located at either end of the access road to prevent unauthorised access from the A52 (suitable arrangements will be made to allow landowners to gain access to their agricultural land via the access road), and unauthorised access to the converter station site itself (to prevent risk of injury to members of the public who may attempt to access the site), and to ensure that NGVL has free and unobstructed access to the converter station at all times for maintenance and health and safety purposes.

6.47 The permanent access road will be constructed first and as such will require an additional temporary construction compound to be established. This additional construction compound will occupy up to 1 ha and will be located close to the junction with the A52. It will be used for providing temporary facilities and storage during construction of the permanent access road.

6.48 There is an existing public footpath (Doni/8/1) which dissects the route of the proposed new permanent access road to the converter station which needs to be partially diverted. NGVL submitted an application for an order to permanently divert 335m of the footpath under s257 of the Town and Country Planning Act 1990 to South Holland District Council ("SHDC") on the 26th of February 2018. NGVL has been liaising with the Council since submission and has no reason to believe that the order will not be forthcoming.

6.49 As explained in paragraph 7.2 below, the freehold acquisition is sought of the land that comprises the permanent access to the converter station.

HVAC Route

HVAC Route - Description

6.50 The HVAC route starts at the converter station and runs underground approximately 2.2Km to the NGET Substation.

6.51 Unlike the HVDC route, where only two cables are needed, the HVAC route will comprise of six (6) cables, installed in two groups of three in two trenches.

6.52 The HVAC system requires above ground features, called link pillars, to enable maintenance and monitoring of the HVAC cables. Two pillars are required at each joint bay location within a protected area.

6.53 Construction of the HVAC cable will be undertaken using a combination of:

6.53.1 trenched installation techniques across open land, with the cables being directly installed or installed within buried ducts, surrounded by a thermally suitable material; and

6.53.2 trenchless methods, such as HDD, to cross obstacles where appropriate, including (but not limited to) roads, buried utilities and watercourses.

6.54 At the NGET Substation, the HVAC cables will be terminated at two substation bays provided by NGET, to connect the UK Onshore Scheme to the NETS.

HVAC Route– during construction

6.55 Like the HVDC route, construction of the HVAC route will be undertaken using a combination of trenched and trenchless installation methods. The construction corridor is in general approximately 75m in width. This is principally governed by:

6.55.1 the space required at crossing points (see paragraphs 6.60 and 6.61 below);

6.55.2 the space required for access and egress, vehicles, equipment, and site establishment to install two cable joint bays adjacent to each other (75m) (BoP8 is a cross-sectional representation of a typical joint bay which illustrates why a construction area of 75m is required to allow space for specialist cable delivery vehicles and installation equipment, site set up and welfare facilities, and emergency access at the point of works);

6.55.3 the need to allow sufficiently flexibility to enable the cables to be routed around any obstacles/ constraints which may be encountered during construction, including but not limited to archaeology; and

6.55.4 the need for flexibility of location of cable joint bays along the route due to further route optimisation to be completed in detailed design.

Trenched installation

6.56 The construction of the HVAC route will typically be undertaken using trenched installation.

6.57 BoP9 is a cross sectional representation of the construction corridor within which the six HVAC cables will be installed using trenched installation.

6.58 With the exception of cable joint bays, trenched installation will typically take place within a 50m 'working width', and will involve the following:

6.58.1 Cable trench: this is the excavation within which six cables will be likely installed in ducts in two trenches, together with two fibre optic cables for the purpose of monitoring and communication.

6.58.2 Working areas: these are areas on the side and between the two trenches which are needed to allow the safe and efficient movement of personnel, plant and machinery used to perform the construction activities required including trench excavation, cable installation and reinstatement. These areas will include defined walkways along the cable route for the construction team.

6.58.3 Topsoil Bund: these areas will be used for the storage of the topsoil. Given that the cables will be installed predominantly within high quality agricultural land, it will be important to separate and store the topsoil in a way that maintains its integrity and structure as defined in the SHSP (CD15). The topsoil would be stripped and stockpiled adjacent to the area stripped to ensure the soil is returned to the same area during reinstatement. Given the wider area needed for the two AC circuits more topsoil will need to be stored and wider and higher stock piles will be necessary.

6.58.4 Subsoil bunds: These areas will be used to store the soil that has been excavated to create the trench. The subsoil removed from the trench will be stockpiled adjacent to the area where it was removed from to ensure the soil is returned to the same areas during reinstatement. The subsoil will be stored as far as practicable away from the topsoil to prevent mixing of soil types. It will also need to be stored in a manner that maintains its integrity and structure as per the requirements of the SHSP (CD15) as it will be used to backfill and reinstate the trench after the ducts, cables and cable joints have been installed. Any subsoil remaining after reinstatement will be disposed of as per the requirements of the WMP (CD16).

6.58.5 Temporary haul road and passing places: the working width will include a haul road for construction traffic along the cable route. This will need to be wider in certain places to allow vehicles to safely pass each other. The haul road will be typically 5m wide increasing up to 10m where there are passing places. This is particularly important to ensure access in the event of an emergency. The haul road will have a slightly different orientation at joint bays to allow the specialist drum trailer to move into position to enable the cable to be pulled into position. By including a haul road NGVL can minimise the amount of construction-related traffic that will need to use public roads. The haul road material will be specified during detailed design.

6.58.6 Fence: to ensure compliance with the CDM regulations the working area will be fenced off to define the area in which the construction activities will be undertaken.

6.59 A package of "Cable Construction Rights" will need to be acquired to enable construction of the HVAC route as explained in paragraphs 7.9 and 7.10 of this statement.

<u>Trenchless Installation.</u>

6.60 There are a number of points along the HVAC route where the cables need to 'cross' (i.e. be installed beneath) obstacles such as roads, certain utilities and watercourses. The

construction area needs to be wider at these points to allow space for the specialist installation equipment set up (such as HDD) to be used.

6.61 NGVL has sought to identify so far as practicable the obstacles along the HVAC route which will need to be 'crossed'. These have been grouped wherever possible so that a number of them can be crossed by a single trenchless installation. The need for further trenchless installations may be identified during construction.

HVAC Route – Operation and Maintenance

6.62 A package of "HVAC Cable Rights" will need to be acquired over the corridor of land in which the electrical equipment is located to enable it to be operated, repaired, maintained, decommissioned and protected from interference. The area of land required for the installed infrastructure during its operation and maintenance phase will differ depending upon the type of construction technique that has been used, i.e. whether trenched or trenchless techniques have been employed.

6.63 Where HDD has been used the "HVAC Cable Rights" may be acquired over a corridor up to 50m wide. In all other cases the "HVAC Cable Rights" may be acquired over a corridor of up to 25m wide. Section 7 below discusses the land rights 'packages' in more detail. The following sections explain:

6.63.1 what the installed infrastructure will comprise of and the likely layout of it that gives rise to the need for those rights;

6.63.2 why the width of the area over which permanent rights are required is different to that over which construction rights are sought and also varies depending upon construction technique used; and

6.63.3 why the ability to access the Cable Corridor to carry out repair and maintenance work is critical to ensure the safety of the landowner and/or public and the efficient operation of the cables.

<u>Trenched</u>

6.64 The following infrastructure will be installed to comprise an HVAC underground power cable system:

6.64.1 Six (6) HVAC power cables contained within plastic ducts, beneath protective tiles, warning tape and surrounded by a suitable engineering material;

6.64.2 Parallel to the HVAC cables, fibre optic cables within a smaller plastic duct;

6.64.3 The HVAC cables and fibre optic cables will be housed within two separate trenches; and

6.64.4 Cable joints to connect the ends of two sections of the six HVAC cables together. These joints will be split into two groups of three making individual 'joint bays'. (The cable joints will be buried in a similar manner to that described above, but without ducts and the power cables will be spaced horizontally slightly further apart.)

6.65 At the cable joint locations a link pillar will be installed above ground. This is required as part of the HVAC design and will allow for regular maintenance to be carried out. The pillar will be protected from damage by a fenced area.

6.66 Other equipment above ground will be the marker posts which are usually installed at field boundaries at appropriate locations with positions agreed with the landowner.

6.67 The corridor over which the HVAC Cable Rights will be acquired is narrower than the width of the construction corridor. The main reasons for the difference in width are as follows:

6.67.1 The logistics of installing the cable during the construction phase differ from those required for carrying out operation and maintenance activities, including fault repair. The type of plant, machinery and vehicles required during the construction phase are generally much larger than those which can be used for operation, maintenance and repairs.

6.67.2 It is anticipated that as a result of the types of plant, machinery and vehicles which are required during construction that the existing road network within the area will not be adequate to provide regular access points without causing significant disruption to the local population. As a result, it is proposed that the construction corridor would contain a significant haul road, suitable for two way traffic along the entire cable route to enable movement of all plant, machinery and vehicles with suitable access points only being taken from the local road network.

6.67.3 During the construction phase there will be significantly more material excavated and imported along the full cable route. This excavated material will need to be stored locally, along the route. The handling of the various materials also requires a large space during construction due to the increased volume.

6.67.4 During construction more efficient working methods are adopted which often require a larger working area to perform. Reduced working width methodologies can also be adopted for constrained works in localised areas such as for operation, maintenance and repairs however, it is not practical or efficient to construct an entire route under these constraints.

Trenchless

6.68 Where trenchless installation is used, the depth at which the ducts need to be installed under the obstruction will define the spacing needed between the ducts (within which the cables will be installed) and also the distance between the entry and exit pits. These features will vary at the different crossing points along the route and will be determined during detailed design. The depth will be guided by the nature of the obstacle to be 'crossed' beneath and the requirements of the organisation responsible for the obstacle, whilst the spacing will depend on the nature/condition of the ground and its ability to absorb and transfer heat away from the cables.

Need for the HVAC Cable Rights

6.69 The HVAC Cable Rights are required to enable operation and future routine maintenance and/or repairs to the cable system. While cable systems are highly reliable, faults may occur and repairs subsequently need to be carried out.

6.70 The HVAC Cable Rights are also required to ensure that access to the cables for the purposes of maintenance and repair is not impeded, and to protect the cables and associated apparatus from interference by, and /or damage resulting from the actions of third parties, such as the owners and occupiers of the land in particular, and to protect such persons from associated physical harm or injury.

Construction compounds

Temporary Construction Compounds and Temporary Working Areas

6.71 TCCs and TWAs are required along the HVAC and HVDC route to facilitate construction. There will be a total of 10 TCCs and 18 TWAs along the two routes.

TCCs

6.72 These are required for the storage of plant and machinery and for stockpiling materials, as well as the provision of site management offices, parking and welfare facilities for construction personnel (kitchen facilities, store rooms, toilets) in accordance with Health and Safety and CDM requirements. There are two types of TCC proposed; 'primary' and 'secondary'. While their overall function/purpose is the same, there are minor variances in their size and potential duration of operation. Primary TCCs will be larger in size (approximately 1.5 ha) and will be in place for the duration of cable construction. Secondary TCCs will be approximately 1.1 ha and will likely be in place for the majority of construction, but not the full duration of the work.

TWAs

6.73 These are required at various locations along the HVDC route (18 TWAs in total) and at one location along the HVAC route. They are typically located at areas where works require a larger area than the typical working width such as at locations where trenchless construction methods are proposed. TWAs are smaller than the TCCs and will cover an area of approximately 0.43 ha. They will be utilised for laydown of construction plant and equipment and storage whilst works are being undertaken in the vicinity. It is therefore unlikely that the TWAs will be in place for the full construction programme.

Other works

Unlicensed Works

6.74 To enable the HVAC cables to connect to the NETS, certain works need to be carried out at the existing NGET Substation at Bicker Fen. These are referred to as 'unlicensed works' because they are not regulated and do not require to be carried out by NGET.

6.75 The unlicensed works will consist of the installation of electrical equipment foundations and support structures, followed by the installation and commissioning of switching equipment in two new connection bays.

6.76 The electrical switching equipment in summary comprises:

6.76.1 Circuit Breaker: this is a switching device that interrupts the flowing current. This is used to isolate the Viking Link Interconnector from the NETS when there is a fault or during maintenance.

6.76.2 Disconnector: this is used to ensure that an electrical circuit is completely de-energised from the NETS.

6.76.3 Earth Switch: this is required to discharge the charges that are trapped in the HVAC cable after opening of the circuit breaker.

6.76.4 Portable relay room: this is a small building that will house the panels required for control and protection and communications equipment.

7. THE LAND AND RIGHTS TO BE ACQUIRED PURSUANT TO THE ORDER

7.1 The Order Land comprises all of the land required for the construction, operation, repair maintenance and decommissioning of the UK Onshore Scheme.

Freehold Acquisition

7.2 NGVL only seeks the purchase of the freehold title to the Order Land for the purposes of above ground permanent infrastructure, namely at the converter station (CPO Plot 42-16), and the access road thereto (CPO Plots 42- 33; 42-34; 43-01 to 43-09 inclusive and 44-01; 44-02). This land is shown coloured pink on Order Maps 42, 43 and 44.

7.3 Paragraphs 6.33 to 6.44 explain the works which will be undertaken at the converter station. Freehold acquisition is necessary to ensure that NGVL has the necessary exclusive possession and control of the land required for the safe construction, operation and maintenance of this installation. Similarly, NGVL needs equivalent control over the access to that installation.

7.4 With regards to the land shown hatched black on the plan at BoP7. Once the construction works have been completed, there may be an opportunity to return some of this area back to the former landowners. NGVL is open to discussions in this respect, subject to the retention of appropriate easement rights for the HVAC and HVDC cables that will be installed under that land, and appropriate rights of access to the converter station and landscaping.

Compulsory acquisition of new rights

7.5 The new rights sought by NGVL have been separated into 'packages' based on their purpose and applied to specific plots, as appropriate. Some of the rights are only required for temporary purposes, such as the creation of construction compounds, and will only be exercised during the construction phase. Other rights will be permanent in nature, such as the right to keep installed, operate, maintain and decommission the cables. Others, such as the right to access the land for the purpose of maintaining the cables, whilst permanent in nature, will in practice only be exercised intermittently.

7.6 The rights 'packages' have been tailored in this way to ensure that a proportionate approach to compulsory purchase is being taken, and that the impact for affected landowners and occupiers is limited so far as reasonably practicable. Accordingly, if a land parcel is only required in order to facilitate land drainage works, only the more limited Drainage Rights package is sought in respect of that land rather than a full Cable Construction Rights package which would permit more intrusive works.

7.7 The rights packages are defined in full in the Order and are replicated at Appendix 2 to this Statement. Column 2 to the Schedule to the Order explains whether or not it is proposed to acquire land or new rights in respect of the numbered parcels of the Order Land. Where new rights are proposed to be acquired, the description identifies the name of the appropriate rights package. In some instances, such as CPO plot 02-07, more than one rights package affects a particular land parcel.

7.8 The rights packages may be summarised as follows:

Cable Construction Rights

7.9 Rights required in connection with/to facilitate the installation of the HVDC and HVAC cables and associated equipment.

7.10 The works to be undertaken during construction of the HVDC and HVAC Routes and are explained in section 6 above. The Cable Construction Rights are necessary for these purposes and are sought over the entirety of the Order Land comprising the HVDC and HVAC land rights corridors, shown coloured blue on the Order Maps, and which, for the reasons explained in paragraphs 6.13 and 6.55 above are approximately 60m and 75m wide respectively for construction purposes.

Access Only Rights

7.11 Rights of access, with or without vehicles, plant and machinery, to facilitate the construction, installation, commissioning, inspection, maintenance, repair, alteration, renewal, replacement, removal and decommissioning of the HVDC and HVAC cables, including rights to carry out minor works to facilitate such access.

7.12 This is a tailored rights package which affects only the land shown coloured orange on the Order Maps.

Access and Drainage Rights

7.13 Rights of access, with or without vehicles, plant and machinery, to facilitate the construction, installation, commissioning, inspection, maintenance, repair, alteration, renewal, replacement, removal and decommissioning of the HVDC and HVAC cables, including rights to carry out minor works to facilitate such access, and rights to carry out de-watering and drainage works.

7.14 This is a tailored rights package which affects only the land shown coloured yellow on the Order Maps.

Construction Compound Rights

7.15 Rights to erect, create, use and remove a works compound to facilitate the installation of the cables.

7.16 Paragraphs 6.71 to 6.73 above explains the need for a number of TCCs and TWAs to facilitate the construction of the HVDC and HVAC Routes. This is a tailored rights package for the purposes of those construction compounds that sit outside of the main construction corridor, and which affects only the land shown coloured green on the Order Maps.

Drainage Rights

7.17 Rights to carry out de-watering and drainage works and to install, alter or reinstate land drainage systems, including the right to access the land with or without vehicles, plant and machinery to undertake those works.

7.18 As explained in paragraphs 4.5 and 4.6 above, the Order Land predominantly passes through agricultural land and it therefore affects existing land drainage schemes. NGVL has, as explained in paragraphs 10.12 to 10.16 below, been working with landowners to develop field drainage solutions. This is a tailored rights package which affects only the land shown coloured brown on the Order Maps.

HVDC Cable Rights

7.19 Rights required in connection with the use, maintenance and decommissioning of the HVDC cables and to protect and prevent interference with them.

7.20 These rights are needed in connection with the permanent infrastructure. As explained in paragraphs 6.13 to 6.15 above, the final layout of the HVDC infrastructure is not yet known however, where HDD/trenchless construction techniques are used, a 'rights corridor' of 25m in width will be required for the easement to accommodate the infrastructure, access for maintenance and protective buffer. In all other areas, where trenched installation is used, a 'rights corridor' of 15m in width is required for the easement.

7.21 Therefore, whilst these rights are sought over the entire Order Land comprising the HVDC Route so that the cables may be installed anywhere within that land, in order to ensure a proportionate approach to acquisition, the HVDC Cable Rights may only be acquired over that part of the Order Land that is required for the installed infrastructure. A restriction is imposed so that the rights may only be acquired within a 'rights corridor' of up to 25m in width where HDD/trenchless techniques are used, and a 'rights corridor' of 15m in other case.

7.22 There is one exception to this because NGVL needs the ability to acquire such access rights as may be necessary over the Order Land to the 'rights corridor' otherwise it may be cut off from the nearest public highway. The access right within the HVDC Cable Rights package may therefore be acquired over any of the Order Land affected by this package and is not subject to the width restriction.

HVAC Cable Rights

7.23 Rights required in connection with the use, maintenance and decommissioning of the HVAC cables and to protect and prevent interference with them.

7.24 These rights are needed in connection with the permanent infrastructure. As explained in paragraph 6.63 above, the final layout of the HVAC infrastructure is not yet known however, where HDD/trenchless construction techniques are used, a 'rights corridor' of 50m in width will be required for the easement to accommodate the infrastructure, access for maintenance and a protective buffer. In all other areas, where trenched installation is used, a 'rights corridor' of 25m in width is required for the easement.

7.25 In a similar manner to the HVDC Cable package, the HVAC Cable package therefore takes a proportionate approach to acquisition and seeks to acquire the rights only in respect of the installed infrastructure, within a 'rights corridor' of either 50m or 25m respectively. Access rights are not required to be imposed within the 'rights corridor' and may be acquired anywhere within the relevant Order Land.

Landfall Zone Rights

7.26 Rights required in connection with the ongoing use, maintenance and future decommissioning of the HVDC cables and to protect and prevent interference with them.

7.27 As explained in paragraph 6.6 above, the landfall zone land (CPO plots 01-06, 01-07, 01-08, 01-17, 01-18 and 01-29 shown coloured blue on the Order Maps), being the interface between the submarine and onshore cables, is a critical area for the project, and NGVL requires flexibility during construction to ensure that the project is not put at risk. As a result, the final spacing and layout of the installed infrastructure, and permanent land requirements is less certain, and it would not be appropriate to impose a rights corridor requirement in this area. Cable Construction Rights will therefore be available over these

plots for construction purposes and a bespoke Landfall Zone Rights package which will allow NGVL the flexibility to acquire such new rights as are necessary for the ongoing use, maintenance and future decommissioning of the UK Onshore Scheme over any part of landfall zone land (CPO plots 01-06, 01-07, 01-08, 01-17, 01-18 and 01-29, shown coloured blue on the Order Maps).

Substation Connection Rights

7.28 Rights required in connection with the ongoing use, maintenance and future decommissioning of the cables and to protect and prevent interference with them. This package also includes rights to facilitate the 'unlicensed works' to connect the HVAC cables to the NGET Substation.

7.29 As explained in paragraph 6.74 above, unlicensed works are required to connect the HVAC cable to the NGET Substation at Bicker Fen. These works are not regulated and are not required to be undertaken by NGET. Rights are required to facilitate those works during construction, and permanent rights are required in connection with the ongoing operation and future maintenance of the infrastructure.

7.30 Cable Construction Rights will be available for construction purposes. The ongoing land requirements are bespoke and therefore a rights corridor requirement would not be appropriate in this area. A bespoke substation connection rights package has therefore been created in respect of the CPO plots 41-03 to 41-06 inclusive, 41-10, 41-17, 41-20, 41-21, 41-22 and 41-24, shown coloured blue on the Order Maps.

7.31 It should be noted that the 'HVAC Cable Rights', 'Cable Construction Rights', 'HVDC Cable Rights', 'Landfall Zone Rights' and 'Substation Connection Rights' packages all include the ability to acquire restrictive rights akin to restrictive covenants, which would enable NGVL to prevent any works or activities on the land where the interconnector infrastructure is located that would prevent access to it, or that could result in damage to or interference with it. NGVL considers the compulsory purchase of these restrictions to be necessary for the following reasons:

7.31.1 The HVDC and HVAC cables will conduct electricity at very high voltages and any tampering or interference with them by the owners or occupiers of the land in which they are situated could result in serious harm or injury and could potentially be fatal. It is therefore essential that suitable and enforceable restrictions are placed on the title to ensure the health and safety of owners and occupiers of the land;

7.31.2 In the event that the cables were damaged, it would be extremely costly to repair or replace them, and would also cause disruption for owners and occupiers of the land;

7.31.3 Given that the cables could not be live during repair/replacement works, the electricity supply would be disrupted which would not be in the public interest; and

7.31.4 Although landowners/occupiers are encouraged to contact utility operators before commencing works/activities in the vicinity of underground electricity infrastructure, protection from interference is not afforded in legislation. Furthermore, NGVL considers it would be disproportionate to seek to secure the necessary protection by means of acquiring the freehold of the land to ensure exclusive possession and thus protection of the cables from interference. This would result in the permanent and avoidable sterilisation of the land.

Approach to compulsory acquisition

7.32 As explained in paragraph 7.2 above, NGVL is taking a proportionate approach to land acquisition and only seeks the purchase of the freehold title to the Order Land for the purposes of above ground permanent infrastructure and its associated landscaping and access. Tailored packages of rights have been created for the installation of the cables, their ongoing operation, maintenance and protection and for associated purposes, such as the carrying out of land drainage works, to ensure that the Order Land will not be overburdened and that only the rights that are necessary will be acquired.

7.33 Section 10 below explains that NGVL has made significant progress in agreeing terms for private treaty agreements and remains fully committed to continuing to progress negotiations throughout the CPO process.

7.34 In the event that it is necessary to exercise compulsory purchase powers to acquire land and/or rights over land, NGVL will take a proportionate approach to this.

7.35 The rights which are sought in the Order have been grouped into distinct packages which will enable them to be acquired as individual packages at different times where appropriate. For example, the land which is the subject of the HVDC and HVAC cable routes is subject to more than one rights package, and in order to ensure that NGVL only acquires permanent rights over the land that is required for the UK Onshore Scheme, it is currently envisaged that the powers to compulsorily acquire the rights for the cable corridors will be exercised in two stages. Firstly, NGVL will serve Notice to Treat and Notice of Entry in order to acquire the Cable Construction Rights over land to enable construction of the cables. These rights are 'temporary in nature' and will need to be exercised over a wider land area than is required for the permanent HVDC or HVAC Cable Rights. It is then envisaged that once the final layout of the cable infrastructure is known, and therefore once the extent of the Order Land over which permanent rights are required is known, which may not be until after construction, NGVL will make a General Vesting Declaration to acquire the HVAC or HVDC Cable Rights as appropriate.

8. POLICY SUPPORT FOR THE VIKING LINK INTERCONNECTOR

8.1 There is wide-spread policy support for the development and construction of the Viking Link Interconnector at all levels, including the European Commission, UK Government, National Planning Policy and local planning policy. The details are provided below.

Relevant European Policy

Policy of the European Council

8.2 The first aspect of this relates to the policy of the European Council, which in 2014 called for all European Union countries to achieve a level of interconnection of at least 10% of their installed electricity production capacity by 2020, recognising the importance of and benefits such technology brings to Members States in providing more flexible and secure electrical supply and also in helping to meet renewable energy obligations.

8.3 What this means in practice is that each country should have in place electricity cables that allow at least 10% of the electricity produced by its power plants to be transported across its borders to neighbouring countries. The EU agreed in September 2016 its 2030 energy and climate framework, which refers to Member States achieving 10% interconnection by 2020 and further aiming for 15% by 2030.

8.4 The European Commission reports that 17 countries are already on track to reach or have reached this target. However, the UK is not one of these countries. When compared with other EU countries, Great Britain is in the lower quartile of interconnector capacity.

TEN-E Regulation

8.5 The second, related, continental driver for the Viking Link Interconnector relates to the application of the Regulation on guidelines for trans-European energy infrastructure EU 347/2013 ("TEN-E Regulation")(CD17).

8.6 The TEN-E Regulation lays down rules for the timely development and interoperability of energy networks in EU Member States and the European Economic Area (EEA). The TEN-E Regulation sets out guidelines for streamlining the permitting processes for major energy infrastructure projects that contribute to European energy networks.

8.7 These infrastructure projects are known as Projects of Common Interest (PCI) and are key infrastructure projects (as recognised by the Regulation), especially cross border projects that link the energy systems of EU countries. They are intended to help the EU achieve its energy policy and climate objectives: affordable, secure and sustainable energy for all citizens, and the long-term decarbonisation of the economy in accordance with the Paris Agreement.

8.8 The list of PCIs is updated every 2 years. The Viking Link Interconnector has been designated as a PCI and therefore is subject to the provisions of the TEN-E Regulation. PCIs are designated on the basis five criteria. They must:

8.8.1 have a significant impact on at least two EU countries;

8.8.2 enhance market integration and contribute to the integration of EU countries' networks;

8.8.3 increase competition on energy markets by offering alternatives to consumers;

8.8.4 enhance security of supply by diversifying sources of energy; and

8.8.5 contribute to the EU's energy and climate goals. They should facilitate the integration of an increasing share of energy from variable renewable energy sources.

8.9 All PCIs are recognised as projects of *"overriding public interest"* as the need has already been examined as part of the PCI selection process. Paragraph 1.3 of the *UK Manual of Procedures: The Permitting process for Projects of Common Interest in the UK* (May 2014) (the UK's published guidance on the implementation of the TEN-E Regulation)(CD18) sets out that the Regulation "*establishes that PCIs are necessary to take forward EU energy networks policy and should be given the most rapid consideration in the permitting process that is legally possible*".

UK Government Energy and Planning Policy

8.10 The urgent need for new generating capacity is reflected in Government energy policy. The UK Government's vision is to ensure safe, secure and affordable supplies for the future involves the construction of a new fleet of nuclear generation, rapid expansion of renewable energy (mainly through offshore wind) and the development of interconnector projects.

National Policy Statements

8.11 The UK Government recognises the importance and urgency of new energy developments and published a series of National Policy Statements ("NPS") which set out national policy for energy infrastructure recognising that providing affordable, reliable and sustainable energy is a key issue in UK Government policy. Although applying strictly to those projects falling within the definition of Nationally Significant Infrastructure Projects (NSIPs), the NPSs are also a material consideration for projects progressed under the Town and Country Planning Act 1990 (as amended), such as the Viking Link Interconnector. Indeed, paragraph 1.2 of The Overarching National Policy Statement for Energy (EN-1) (CD5) makes this clear where it states that "*In England and Wales this NPS is likely to be a material consideration in decision making on applications that fall under the Town and Country Planning Act 1990 (as amended).*"[3] A similar comment is also made at paragraph 1.2.3 of The National Policy Statement for Electricity Networks Infrastructure (EN-5) (CD19).

8.12 At paragraph 2.2.16, EN-1 (CD5) sets out that "*about a quarter of the UK's generating capacity is due to close by 2018 and new low carbon generation is required which is reliable, secure and affordable*." This paragraph also notes that "*with the total investment requirement in the electricity sector alone estimated to be over £100 billion by the end of this decade, much more has to be done to unlock this investment*"

8.13 EN-1 (CD5) further sets out at paragraph 2.2.20 that *"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 we need:*

- *sufficient electricity capacity (including a greater proportion of low carbon generation) to meet demand at all times. Electricity cannot be stored so demand for it must be simultaneously and continuously met by its supply. This requires a safety margin of spare capacity to accommodate unforeseen fluctuations in supply or demand;*
- *reliable associated supply chains (for example fuel for power stations) to meet demand as it arises;*

[3] As underground electricity cables are not included within the types of development requiring a Development Consent Order under section 14 of the Planning Act 2008, Viking Link is being consented under the Town and Country Planning Act 1990.

- *a diverse mix of technologies and fuels, so that we do not rely on any one technology or fuel. Diversity can be achieved through the use of different technologies and multiple supply routes (for example, primary fuels imported from a wide range of countries); and*
- *there should be effective price signals, so that market participants have sufficient incentives to react in a timely way to minimise imbalances between supply and demand."*

8.14 3.19 EN-1 (CD5) notes at paragraph 3.7.2 that *"Existing transmission and distribution networks will have to evolve and adapt in various ways to handle increases in demand…."*

8.15 EN-5 (CD19) sets out at paragraph 1.1.1 that "*the new electricity generating infrastructure that the UK needs to move to a low carbon economy while maintaining security of supply will be heavily dependent on the availability of a fit for purpose and robust electricity network. That network will need to be able to support a more complex system of supply and demand than currently and cope with generation occurring in more diverse locations".*

8.16 The Department of Energy and Climate Change (now the Department for Business, Energy and Industrial Strategy) *'Planning our electric future: a White Paper for secure, affordable and low-carbon electricity'* (July 2011) ("White Paper") (CD20) sets out the Government's commitment to transform the UK's electricity system to ensure that future supply is secure, low-carbon and affordable. In the Ministerial Forward it sets out that "*Around a quarter of our existing capacity-mainly coal and nuclear power stations-will close in the next decade. Keeping the lights on will mean raising a record amount of investment. However, the current market arrangements will not deliver investment at the scale and pace we need."*

8.17 Paragraph 3 (page 5) of the White Paper (CD20) sets out the unprecedented challenges facing the UK in terms of energy in the coming decades:

"security of supply is threatened as existing plant closes*: over the next decade we will lose around a quarter (around 20 GW) of our existing generation capacity as old or more polluting plant close. Modelling suggests that de-rated capacity margins could fall below five per cent around the end of this decade, increasing the likelihood of costly blackouts. In addition to this huge reduction in existing capacity, the future electricity system will also contain more intermittent generation (such as wind) and inflexible generation (such as nuclear). This raises additional challenges in terms of meeting demand at all times, for example when the wind does not blow;*

- ***we must decarbonise electricity generation****: it is vital that we take action now to transform the UK permanently into a low-carbon economy and meet our 15 per cent renewable energy target by 2020 and our 80 per cent carbon reduction target by 2050. To put us on this latter trajectory, power sector emissions need to be largely decarbonised by the 2030s. Without reform, the electricity sector would have an emissions intensity in 2030 of over three times the level advised by the Climate Change Committee. Electricity Market Reform will put in place the institutional and market arrangements to deliver the scale of change in the power sector needed to meet the UK's carbon budgets, including the recently-adopted fourth carbon budget;*

- ***demand for electricity is likely to rise****: despite the improvements in household and non-domestic energy efficiency which will be generated through the introduction of the Green Deal and the roll-out of Smart Meters across the country, overall demand for electricity may double by 2050 due to the electrification of the transport, heat and other carbon intensive sectors; and*

- ***electricity prices are expected to rise****: increases in wholesale costs, the carbon price and environmental policies are likely to lead to higher bills in the future, even without factoring in the huge investment needed in new infrastructure. The Government is committed to reducing the impact on consumers by making sure investment takes place in the most cost-effective way possible. The cumulative benefits to the economy of Electricity Market Reform are expected to be over £9 billion higher than business as usual over the period 2010-30."*

8.18 On page 30 of the White Paper (CD20) it summarises the UK's emissions and renewables targets, stating that:

"*The Climate Change Act 2008 establishes a long-term framework to tackle climate change. The Act aims to encourage the transition to a low-carbon economy in the UK through unilateral legally binding emissions reductions targets. This means a reduction of at least 34 per cent in greenhouse gas emissions by 2020 and at least 80 per cent by 2050. The first three carbon budgets, covering 2008-12, 2013-17 and 2018-22 were set in law in spring 2009 and require greenhouse gas emissions to be reduced by at least 34 per cent below the 1990 baseline by 2020. The level of the Fourth Carbon Budget for the period 2023-2027 was set in law at 1950 mtCO2at the end of June 2011. The level set equates to a 50 per cent reduction in greenhouse gas emissions on 1990 levels for each year over the Fourth Carbon Budget period*".

8.19 Since the White Paper the Energy Market Reform (EMR) has delivered a subsidy mechanism to deliver nuclear and renewable growth, a carbon tax to incentivise low carbon generation and a capacity market to deliver security of supply.

8.20 The reductions to which the UK Government has committed mean that the electricity need will however still have to be met through additional new low-carbon energy infrastructure.

8.21 it is therefore clear that there is significant change occurring in the UK energy market requiring increased generation capacity in the UK and that this position is supported by energy and planning policy.

National Planning Policy Framework – February 2019

8.22 The National Planning Policy Framework ("NPPF") published by the Ministry of Housing, Communities and Local Government ("MHCLG") in February 2019 (CD 21) sets out the Government's planning policies and how they should be applied. At the time of submission of the Planning Applications for the Viking Link Interconnector (please see section 9 below), the extant national planning policy comprised the NPPF dated 2012; this was subsequently superseded in July 2018 and in February 2019 without material amendment to the policy guidance applicable.

8.23 The NPPF (CD21) has three overarching objectives to sustainable development, social, economic and environmental. With regard to the economic strand, the planning system has a role in contributing to building a strong, responsive and competitive economy through a number of means, including the provision of infrastructure. The environmental role includes mitigating and adapting to climate change including moving to a low carbon economy. This is reflected within the 12 core planning principles, indeed paragraph 148 states: *"The planning system should support the transition to a low carbon future…. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience…. and support renewable and low carbon energy and associated infrastructure."*

National Infrastructure Commission

8.24 The NIC published its report in March 2016 '*Smart power: A National Infrastructure Commission Report*'[4] (CD22) addressing how the UK can better balance supply and demand. Interconnection was one of three innovations identified by the NIC report that could save consumers up to £8bn per year by 2030 and help the UK meet its 2050 carbon targets:

"In the coming decades the UK is uniquely placed to benefit from three innovations which could help fire a smart power revolution…..Interconnection – connecting our electricity network to our continental neighbours is already bringing down bills and helping to balance the system. More connections to cheap, green power supplies, such as Norway and Iceland could bring great benefits to the UK. Government should redouble its efforts to open new connections."

8.25 NIC's '*National Infrastructure Assessment*'[5] (CD7) published in July 2018 reiterates the importance of interconnection:

"To date, carbon intensive fossil fuels have met some of this need by providing plenty of flexible supply. But as they come off the system in favour of (mostly variable) renewable energy, flexibility will need to be maintained in other ways… In all scenarios, extra flexibility, which includes technologies such as storage, interconnection and demand side response, is a low regrets investment which reduces estimated total energy system costs by between £1-7 billion per year on average between 2030 and 2050. This finding echoes the conclusions of the Commission's Smart Power report." **...**

…"[However, not all new sources of supply in the 2020s need be renewable.] Interconnectors, of which there is a large pipeline of projects, are likely to become of increasing importance throughout this period, and the Government should ensure that the current pipeline is not affected by the UK's exit from the EU."

Local Planning Policy

8.26 The UK Onshore Scheme affects land within four local planning authority (LPA) administrative areas: North Kesteven District Council ("NKDC"), Boston Borough Council ("BBC"), SHDC and East Lindsey District Council ("ELDC"). The principle of the development of the Viking Link Interconnector is supported by all four of the LPA's local plans, brief details of which are as follows.

North Kesteven District Council: The Central Lincolnshire Local Plan 2017 (extracts at CD23)

8.27 The site lies within the countryside (tier 8) as identified within the Spatial Strategy laid out in Policy LP2. The Policy states that unless allowed by either policy in any of the tiers 1-7 or any other policy in the plan (such as LP4, LP5, LP7 and LP57), development will be regarded as being in the countryside and as such restricted to:

8.27.1 That which is demonstrably essential to the effective operation of agriculture, horticulture, forestry, outdoor recreation, transport or utility services;

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4 https://www.gov.uk/government/publications/smart-power-a-national-infrastructure-commission-report

5 https://www.nic.org.uk/wp-content/uploads/CCS001_CCS0618917350-001_NIC-NIA_Accessible.pdf

8.27.2 Renewable energy generation.

8.28 Policy LP18 relates to climate change and low carbon living and advises that proposals will be considered more favourably if the scheme would make a positive and significant contribution towards (in preferential order) reducing demand, resource efficiency, energy production or carbon off-setting.

Boston Borough Council Local Plan April 1999 (extracts at CD24)

8.29 The Local Plan was adopted in April 1999, and a large number of the Policies within the plan were agreed to be "saved" beyond 27th September 2007. Whilst a new Plan is in preparation, it is not currently used for development management purposes. The relevant policies of the Local Plan include:

8.30 The central theme of the Local Plan is to promote and encourage new development in the Borough, provided it can be accommodated without harming the area's environment and character.

8.31 Local Plan Policy CO1 states that the Council wishes to conserve the character of the countryside and protect the best and most versatile agricultural land. Development will not be supported in the countryside unless it is supported by other Local Plan policies.

8.32 Policy ED11 supports the granting of planning permission for development that will be provide a renewable energy source where it will not significantly harm the character of the area, will not generate levels of traffic, noise small or other pollution or harm the local environment, and will not adversely affect The Wash Site of Special Scientific Interest or sites of Local Nature Conservation interest.

South Holland District Council Local Plan, July 2006 (CD25)

8.33 The South Holland Local Plan 2006 was adopted on the 18th of July 2006. As of the 18th of July 2009 certain Local Plan policies were saved and continue to form part of the development plan.

Of those, the following are particularly relevant to the UK Onshore Scheme. Policy SG1 (General Sustainable Development) of the Local Plan, states that proposals should be consistent with the principles of sustainable development. Policy SG4 allows for new development in an open countryside location, which is essential to the location and cannot be accommodated within the settlement limits. Policy SG14 requires development to be designed to ensure that it makes a positive contribution to the architectural and visual quality of its surroundings. Policy SG18 encourages the incorporation of landscaping proposals as an integral part of the design and layout and requires a landscaping strategy for major development.

East Lindsey Local Plan Alteration 1999 (Saved Policies) and the East Lindsey District Council Local Plan, July 2018 (CD 26.1 and 26.2)

8.34 The statutory development plan for ELDC at the time NGVL submitted its planning application for part of the HVDC route (please see section 9 below) comprised the 'saved' parts of the East Lindsey Local Plan (ELLP). ELDC adopted a replacement for the ELLP, the ELDC Local Plan (Submissions Modifications Draft), which comprises the Core Strategy and the Settlement Proposals document in July 2018. The Plan is now the statutory development plan for ELDC

8.35 There is no specific energy-related policy in the current Local Plan, such that the requirements of paragraph 11 of the NPPF (CD21) are relevant as a material consideration of weight. This states that for decision-taking this means:

"*Approving development proposals that accord with an up-to-date development plan without delay; or where there are no relevant development plan policies….granting permission unless:*

i. the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed or

ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the Policies in this Framework taken as a whole."

8.36 Policy SP27 (renewable and Low Carbon Energy) of the Local Plan is supportive of interconnector projects but also provides for assessment to ensure that benefits outweigh impacts on a range of criteria including amenity, landscape and heritage assets.

9. THE PLANNING POSITION

9.1 NGVL submitted individual planning applications for the UK Onshore Scheme to the following LPAs on the 24th of August 2017:

9.1.1 To ELDC, (Reference No. N/110/01549/17), an application for permission for the installation of approximately 51.60 km of underground HVDC cable, and associated temporary works;

9.1.2 To BBC, (Reference No. B/17/0340), an application for permission for the installation of approximately 9.78 km of underground HVDC cable, approximately 1.13 km of HVAC underground cable, works within the NGET Substation and associated temporary works;

9.1.3 To NKDC, (Reference No. 17/1200/FUL), and application for permission for the installation of approximately 4.80 km of underground HVDC cable, and associated temporary works; and

9.1.4 To SHDC, (Reference H04-0823-17), an application for permission for the converter station, 2.8 km long permanent access road, approximately 0.98 km of underground HVDC cable, approximately 1.21 km of HVAC underground cable, and all associated temporary works.

9.2 BCC issued planning permission Ref. B/17/0340 on the 12th of September 2018 (CD27); NKDC issued planning permission Ref. 17/1200/FUL on the 18th September 2018 (CD28); and SHDC issued planning permission Ref. H04-0823-17 on the 8th of October 2018 (CD29).

9.3 The ELDC application was presented to the Council's Planning Committee on the 3rd May 2018 with an officer recommendation for approval. However, the Committee determined that they were minded to refuse planning permission and wished to refer their concerns to the Secretary of State. Planning Permission was subsequently granted on appeal (Ref. APP/D2510/W/18/3208088) on the 12th of December 2018 (CD30).

10. APPROACH TO ACQUIRING INTERESTS AND RIGHTS IN LAND BY AGREEMENT

Engagement Strategy

10.1 The Schedule to the Order identifies those persons with an interest in the Order Land. As advised by paragraph 17 of the CPO Guidance (CD3), NGVL has attempted to engage in meaningful discussions with all known owners of the Order Land, both as part of the route selection process and in pursuing negotiations to acquire land and new rights over land.

10.2 Engagement with landowners first commenced in February 2016 with land referencing activities and then continued as part of the consultation held during the development of the UK Onshore Scheme. This has continued throughout the planning application process, during which a number of landowner engagement events were held. The key steps in the landowner engagement process are set out in Appendix 3 to this Statement.

10.3 The negotiations to acquire land and new rights, which commenced in September 2017, have been carried out by Dalcour Maclaren (DM), acting on behalf of NGVL, and managed/instructed by NGVL. In addition to conducting the negotiations to agree heads of terms with landowners and/or their agents, NGVL and DM have had a communicative role. Throughout the considerable engagement period, NGVL and DM have taken time to explain NGVL's land requirements and kept them appraised of the project progress. As a result of this liaison, NGVL received route change requests from a number of landowners which they were able to consider during the evolution of the scheme design and accommodate wherever practicable.

10.4 In accordance with National Grid's Land Rights Strategy, NGVL has sought to enter into option agreements to acquire the land and rights that it requires. For the HVDC cable corridor, heads of terms for an option agreement to enter into an easement for the grant of the rights required for the HVDC route were issued in November 2017 and, following land agent and owner feedback, they were amended and re-issued in May 2018.

10.5 The Land Rights Strategy was introduced in 2010 in order to provide a consistent methodology for acquiring land rights for National Grid's infrastructure projects, both for Planning Act 2008/Development Consent Orders (DCOs) and Town & Country Planning Act 1990/Compulsory Purchase Order (CPO) schemes. It enables effective and consistent communication with those who are most affected by NGVL's proposals, embodies the principles of the CPO Guidance on seeking to acquire land by negotiation, and also enables NGVL to treat people fairly no matter where they live.

10.6 Heads of terms for the option in respect of the HVAC cable corridor were issued in July 2018. This followed a process of engagement with the owners of land through which the cable is proposed to be sited, in order to seek to agree an alignment. This alignment has been arrived at taking into account, so far as reasonably practicable, the parties' requests, and also the requirements of NGET for the connection at the NGET Substation, into which Triton Knoll Electrical System must also connect.

Progress to Date

10.7 The table below summarises the current position with regards to private treaty negotiations.

	Total No. required	***HoT'S in Negotiation***	***HoT's Agreed***	***Option Agreements Complete***
HVDC Route	**91**	**7**	**84**	**0**
HVAC Route	**7**	**2**	**5**	**0**
Converter Station	**2**	**2**	**0**	**0**

10.8 Notwithstanding the significant progress that has been made by NGVL with acquisitions to date, NGVL has not acquired all of the interests in the Order Land that it requires for the delivery of the UK Onshore Scheme. In order to provide certainty that the land and rights required for the Viking Link Interconnector can be assembled within a reasonable timeframe to enable the project to be delivered, it was necessary for NGVL to start the CPO process in parallel with private treaty negotiations. Running the CPO process in parallel with continuing landowner negotiations is expressly envisaged by paragraph 17 of the CPO Guidance (CD3) and NGVL remains fully committed to continuing to progress negotiations throughout the CPO process.

Other assistance and commitments provided to landowners

10.9 In addition to seeking to acquire land by negotiation, NGVL has taken other steps to try to help owners and occupiers affected by the Order. NGVL has attended several meetings with the National Farmers Union (NFU) and also with representatives from the Lincolnshire Association of Agricultural Valuers (LAAV). The land rights strategy and acquisition strategy has been discussed at those meetings in some detail, as has the content of NGVL's proposed heads of terms of agreement. The feedback from those meetings along with feedback from other land agent discussions has been taken on board wherever possible and that has resulted in the original template heads of terms ("HOTs") being amended and re-issued twice to address points raised.

10.10 NGVL have set out their commitments to landowners and/or occupiers in a Code of Practice (CD31) which provides information on the working practices of NGVL and their contractors, and describes the key mitigation measures relating to land drainage, farming operations and disturbance.

10.11 In summary, the Code of Practice (CD31):

10.11.1 describes the preparatory work that will need to be undertaken by NGVL/its contractors (such as the carrying out of surveys, land condition assessments, and the erection of fencing);

10.11.2 explains what land NGVL will need to use during construction and the precautionary/preventative measures that will be put in place by NGVL/its contractors to ensure, for example, that services and water supplies are

maintained wherever possible or reinstated where disruption is unavoidable, and that pests and diseases are not spread etc.;

10.11.3 describes the installation methods that NGVL/its contractors will use (trenched and trenchless) and the steps that will be taken by NGVL (following consultation with landowners) to mitigate impacts on land drainage systems;

10.11.4 explains the restoration works that will be undertaken by NGVL/its contractors following installation of the cables and the basis on which compensation may be claimed by landowners and/or occupiers (i.e. for crop loss, damage and disturbance arising from the construction works and the loss of land management payments where land is taken out of production); and

10.11.5 advises that an Agricultural Liaison Officer will be appointed by NGVL to provide a point of contact for landowners and occupiers during construction.

10.12 NGVL recognises that a key concern of landowners is the impact of cable installation on agricultural land drainage and soils. At an early stage, land drainage questionnaires were sent to all landowners and Land Drainage Consultancy Limited ("LDC") were employed to carry out land drainage system and soil surveys to assess these where access had been granted along the route proposed. Pre and post construction conceptual drainage designs were then produced and all landowners were offered consultation and meetings to seek to ensure that the proposals provide a workable drainage solution to be installed both during construction and as part of the land reinstatement upon completion of the construction phase of the project.

10.13 Further drainage investigations are required prior to construction to inform and revise the conceptual pre and post construction land drainage designs. This is an iterative process of design review and there will be continuing dialogue with landowners as construction detail develops. Proposed changes will be discussed and agreed with the land owner in advance of the start of construction work.

10.14 Land drainage systems impacted by cable installation will be intercepted by a carefully designed pre-construction land drainage scheme. This will pick up existing drains on either one or both sides of the construction areas, divert clean drainage water from the construction area to a new outfall; maintain existing water flows from adjacent land and mitigate the risk of waterlogging in the construction area and off site.

10.15 A post construction land drainage scheme has been designed and will be installed and will be supported by an appropriate SHSP (CD15) to facilitate soil structural recovery. This will return affected land to its full agricultural potential as soon as reasonably practicable after disturbance.

10.16 As explained in paragraphs 7.17 and 7.18 above, a Drainage Rights package is proposed in order to facilitate the rights required to carry out mitigation works to existing field drainage schemes.

Compensation available for residual impacts

10.17 Whilst NGVL has sought to mitigate so far as reasonably practicable the impacts that the UK Onshore Scheme will have upon landowners and occupiers affected by the project, NGVL recognises that there will be circumstances that give rise to financial loss. NGVL has, through its HOTs, offered a financial compensation package. In the event that terms for a negotiated agreement cannot be concluded, affected parties may be entitled to claim under the CPO Compensation Code, pursuant to one or more of the following heads of claim:

10.17.1 Acquisition of land and/or acquisition of rights (and imposition of restrictions);

10.17.2 Crop Loss and disturbance;

10.17.3 Third Party Professional Fees;

10.17.4 Severance and Injurious Affection;

10.17.5 Blight;

10.17.6 Claims arising under Section 7 or 10 of the Compulsory Purchase Act 1965; and

10.17.7 Claims arising under Part 1 of the Land Compensation Act 1973.

11. DELIVERY AND RESOURCES

Introduction

11.1 NGVL, through its parent company National Grid, has a superb track record in delivering major infrastructure projects, including interconnectors, as explained below. It also has an excellent financial standing.

11.2 Similarly, Energinet, which is owned by the Danish Government has the track record and financial approvals in place to deliver its parts of the Viking Link Interconnector.

The Project Partners

11.3 The Viking Link Interconnector is being jointly developed and financed by NGVL and Energinet on equal terms (i.e. on a 50:50 basis) in a business arrangement termed an '*Unincorporated Joint Venture (UJV)*'.

11.4 NGVL is responsible for developing, constructing and financing the UK Onshore Scheme. Energinet is responsible for developing, constructing, and financing the equivalent Danish onshore scheme. NGVL and Energinet will have joint responsibility for delivery of the offshore works associated with the submarine cables.

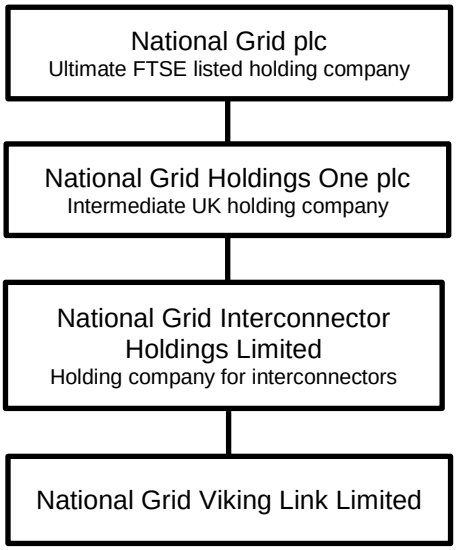
NGVL

11.5 NGVL is part of the National Grid group of companies ("National Grid").

11.6 The ultimate parent and controlling company of National Grid is National Grid plc which has a primary listing on the London Stock Exchange and a secondary listing on the New York Stock Exchange. National Grid plc is a constituent of the Financial Times Stock Exchange (FTSE) 100 Index.

11.7 National Grid plc is an internationally recognised leader in the safe development and operation of large capacity, multi-user, energy transmission systems. National Grid plc owns and operates the electricity and gas transmission infrastructure at the centre of Britain's energy system.

11.8 National Grid Holdings One plc (NGH1) operates as a subsidiary of National Grid plc. NGH1 holds investments in, and provides finance to, fellow subsidiary companies, such as National Grid Interconnector Holdings Limited ("NGIH"), which in turn provides finance to project specific subsidiaries, such as NGVL. The diagram below shows the relationship between National Grid plc, NGH1, NGIH and NGVL:



Energinet

11.9 Energinet is an independent public enterprise owned by the Danish state as represented by the Ministry of Energy, Utilities and Climate. It owns, operates and develops the Danish electricity and gas transmission systems.

11.10 Energinet is the Danish Transmission System Operator (TSO) and is governed by Act number 1097. Any proposed extension or expansion of the Danish high voltage electricity transmission system requires the approval of the Ministry of Energy, Utilities and Climate in accordance with Section 4 of that Act.

Track record

11.11 Both National Grid and Energinet have extensive experience of building, operating and maintaining linear infrastructure schemes including overhead and buried high voltage cable systems such as interconnectors.

11.12 National Grid has developed the following interconnectors to France and the Netherlands:

11.12.1 **IFA (Interconnexion France Angleterre) -** 73 km HVDC connection between the UK and France with a capacity of 2,000 MW which was commissioned in 1986. It is jointly owned and operated by National Grid Interconnectors Limited (a subsidiary company of National Grid Plc) and Réseau de Transport d'Électricité (RTE).

11.12.2 **BritNed -** 260 km HVDC connection between the UK and the Netherlands with a capacity of 1,000 MW which was commissioned in 2011. It is owned and operated by BritNed Development Limited which is a 50:50 joint venture between NLink International BV, a subsidiary of Tennet Holding B.V. and National Grid International Limited (a subsidiary company of National Grid Plc).

11.12.3 **Nemo Link® -** 140 km HVDC connection between the UK and Belgium with a capacity of 1,000 MW which was jointly developed on a 50:50 basis by National Grid Nemo Link Limited (a subsidiary company of National Grid Plc) and the Belgian Elia group.

11.13 National Grid are currently developing the following interconnector projects:

11.13.1 **IFA2 -** 240 km second HVDC connection between the UK and France with a capacity of 1,000 MW which is due to commence operation in 2020. It is being jointly developed on a 50:50 basis by National Grid IFA2 Limited (a subsidiary company of National Grid Plc) and RTE the electricity transmission system owner and operator in France.

11.13.2 **North Sea Link (NSL) -** 720 km HVDC connection between the UK and Norway with a capacity of 1,400 MW which is due to commence operation in 2021. It is being jointly developed on a 50:50 basis by National Grid North Sea Link Limited (a subsidiary company of National Grid Plc) and Statnett who are responsible for developing and operating the Norwegian national power grid.

11.14 Energinet has developed the following interconnectors:

11.14.1 **Skagerrak1-4 -** 240 km HVDC connection between Denmark and Norway with a total capacity of 1,700 MW which was commissioned in four steps between 1977 and 2014. It is owned and operated by Energinet and Statnett in Norway.

11.14.2 **Konti-Skan1-2 -** 149 km HVDC connection between Denmark and Sweden with a total capacity of 600 MW which was commissioned in 1965 (Konti-Skan1) and 1988 (Konti Skan2) respectively. The converters for Konti-Skan1 were renewed in 2006. It is owned and operated by Energinet and Svenska kraftnät the TSO in Sweden.

11.14.3 **Kontek -** 170 km HVDC connection between the Danish island of Zealand and Germany with a capacity of 600 MW which was commissioned in 1995. It is owned and operated by Energinet and 50Hertz Transmission GmbH in Germany.

11.14.4 **Great Belt HVDC -** 58 km HVDC interconnector developed and owned by Energinet between Funen and Zealand connecting two power transmission systems in Denmark with a capacity of 600 MW which was commissioned in 2010.

11.15 Energinet are currently constructing the following interconnector:

11.15.1 **COBRAcable -** 325 km HVDC connection between Western Denmark and the Netherlands with a capacity of 700 MW which is due to commence operation in 2019. It is being jointly developed by Energinet and TenneT the Dutch TSO.

Funding for the UK Onshore Scheme

11.16 NGVL has assessed the costs of implementing the UK Onshore Scheme and acquiring the necessary land and rights over land needed to facilitate it. On the 26th of September 2018 the National Grid plc board made a positive Financial Investment Decision ("FID"), making a commitment to fund the Viking Link Interconnector project from its operational revenues, including the costs of acquiring the necessary land and rights over land needed for the UK Onshore Scheme, whether such land/rights are acquired by agreement or purchased compulsorily.

11.17 Funding for the UK Onshore Scheme, including the acquisition of land and new rights and the implementation of the scheme, will be managed from within the National Grid's own resources, credit facilities, and routine debt financing. The scheme is not dependant on grants or financial contributions from third parties or other bodies. Rather, National Grid plc manages its funding strategy from a Group perspective and on average expects to issue £2-3 billion of long-term debt each year, to fund capital expenditure and to refinance

maturing debt across the Group. The Group also has access to short-term debt instruments.

11.18 External debt is raised across a number of entities in the Group (regulated operating companies, intermediate holding companies and National Grid plc). As a result, it benefits from flexibility, with access to the best value funding available.

11.19 National Grid plc is rated at the same level by Standard & Poor's (S&P)[6], Moody's[7] and Fitch[8] (BBB+/Baa1/BBB+ respectively) and remains on Stable outlook for all three agencies. NGH1 (which holds investments in, and provides finance to, fellow subsidiary companies, such as NGIH, which in turn provides finance to project specific subsidiaries, such as NGVL) is rated by S&P and is currently rated A- (in line with National Grid plc's Corporate Rating).

11.20 As per other operating companies, NGVL will have access to an inter-company facility it can draw on to cover operational expenditure (OPEX) and capital expenditure (CAPEX), allowing it to borrow from National Grid plc (its ultimate parent).

11.21 Given the Group's strong credit rating and the aforementioned available liquidity, NGVL is satisfied that the requisite funding is available to meet the implementation and land acquisition/compulsory purchase compensation costs associated with the UK Onshore Scheme as and when required (including any advance payments).

11.22 While it is not considered that there are any properties which would qualify for submitting a blight notice, NGVL confirms that in the event that a valid blight notice is received, it has the funds available to meet the acquisition costs.

11.23 Accordingly, NGVL considers that the criteria in paragraphs 13 and 14 of the CPO Guidance are satisfied.

Funding for the Danish Scheme

11.24 The Danish Minister for Energy, Utility and Climate approved the Viking Link investment on 25th October 2017 along with the investment approvals for two other Danish infrastructure projects.

Delivery Programme

11.25 The following provides a high level overview of the delivery programme:

11.25.1 **Danish Onshore Scheme -** Contractor to mobilise and conduct detailed design and pre-commencement activities Q3 2019 onwards. Construction activities due to commence in Q3 2020 and will be predominantly complete by Q3 2022.

11.25.2 **UK Onshore Scheme -** Contractor to mobilise and conduct detailed design activities with pre-commencement works from Q3 2019 onwards. Construction activities due to commence in Q2 2020 and will be complete by Q4 2023.

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[6] Standard & Poor's Financial Services LLC.

[7] Moody's Investors Service.

[8] Fitch Ratings.

11.25.3 **Offshore Scheme -** Contractor mobilisation and pre-commencement work to be undertaken from Q3 2019. Construction activities for the Offshore Scheme due to start in Q2 2021 with completion being targeted for Q2 2023.

11.25.4 Testing and commissioning of the Viking Link Interconnector will take place during Q3/Q4 2023 with operation anticipated to begin Q4 2023.

11.26 Each part of the Viking Link Interconnector (the Danish Onshore Scheme, the UK Onshore Scheme and the Offshore Scheme) will be closely monitored to ensure a coordinated approach.

11.27 Accordingly, it is important that NGVL has the certainty that it will be able to access and acquire rights to all of the land comprising the UK Onshore Scheme at the earliest possible opportunity, otherwise the carefully programmed construction timetable will be put at risk.

12. RELATED APPLICATIONS, APPEALS, ORDERS ETC.

12.1 All the primary consents required to deliver the Viking Link Interconnector have been obtained by NGVL. They are:

12.1.1 Planning permission for the UK Onshore Scheme (four permissions in total granted in Q3 and 4 2018 as explained in section 9 above);

12.1.2 Permission for the Denmark onshore scheme (February 2018);

12.1.3 Offshore installation permit from the relevant Danish authorities for the installation of the submarine cables (February 2018 and March 2019);

12.1.4 Permit from the relevant German authorities for the installation of submarine cables (December 2017);

12.1.5 Permit from the relevant Dutch authorities for the installation of submarine cables (January 2018); and

12.1.6 Marine licence from the Marine Management Organisation (MMO) for the installation of submarine cables in UK territorial waters (October 2018).

12.2 On the 26th of February 2019 an order was made by SHDC under section 257 of the Town and Country Planning Act 1990 to authorise the diversion of Footpath DONI/8/1, to enable the development authorised by Planning Permission Reference H04-0823-17 (referred to at paragraph 9.1.4 above) to be implemented. At the timing of writing this Statement, the objection period was yet to expire. However, no objections had been made to the order and it is anticipated that the order will be confirmed as an unopposed order.

12.3 The European Commission has developed guidelines to assist in the development of energy networks within Europe which will play an important role in ensuring an efficient energy market within Europe and the security and diversification of energy supply. These are known as the as 'the TEN-E Regulation'[9] (CD17).

12.4 The Viking Link Interconnector was included in the EU List of 'Projects of Common Interest' (PCI) under the TEN-E Regulation PCIs on 18th November 2015 and it remains listed. The list was adopted by Commission Delegated Regulation (EU) 2016/89[10] (CD32) which confirmed the Viking Link Interconnector project as being a PCI due to it being a key energy infrastructure project delivering significant benefits for at least two European Member States which further supported market integration and competition, enhanced security of energy supply and contributed to reducing carbon dioxide (CO_2) emissions. The Viking Link Interconnector is one of the PCIs[11] currently listed.

12.5 Designated PCIs are recognised as projects of *"overriding public interest"* as their need has already been examined as part of the PCI selection process and consequently they are to benefit from faster and more efficient permit granting procedures, and improved regulatory treatment. Under the TEN-E Regulation, Member States are required to designate a National Competent Authority who are responsible for co-ordinating the permitting process for PCIs. For the Viking Link Interconnector, the United Kingdom (UK) role has been delegated by the Secretary of State to the Marine Management Organisation ("MMO")

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9 EU Regulation 347/2013 on guidelines for trans-European energy infrastructure (TEN-E Regulation) came into force on 17th April 2013. The TEN-E Regulation helps build and finance the EU's priority energy infrastructure projects in order to connect EU countries currently isolated from European energy markets, strengthen existing cross border interconnections, and help integrate renewable energy supply.

10 http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0089&from=EN

11 https://ec.europa.eu/energy/sites/ener/files/documents/annex_to_pci_list_final_2017_en.pdf

whose role was to coordinate the decision making process with the four local planning authorities referred to in section 9.1 of this Statement, and the other relevant jurisdictions in order to reach a 'Comprehensive Decision'.

12.6 NGVL received the TEN-E Comprehensive Decision in respect of the consenting of the Viking Link Interconnector from the MMO on the 6th of February 2019.

12.7 Accordingly, NVGL has attained all the statutory consents required to install the Viking Link Interconnector under the UK consenting regime and as such there is no consenting-related impediment to its delivery.

13. THE PURPOSE AND JUSTIFICATION FOR THE ORDER

13.1 The purpose of the Order is to acquire the land and new rights required to facilitate the UK Onshore Scheme as part of the Viking Link Interconnector. This is a purpose for which NGVL has an Electricity Interconnector Licence under the 1989 Act and accordingly is a purpose for which the use of compulsory purchase powers are available.

13.2 It is widely recognised that the UK is facing unprecedented challenges to its energy market. In just two years' time, by 2021, around a quarter of its existing generating capacity will have been lost as old or unacceptably polluting plant closes. It has targets to obtain 15% of its energy from renewable sources by 2020, and to reduce carbon emissions by 80% of 1990 levels by 2050 –the latter target requires the power sector to be largely decarbonised by the 2030s.[12] (CD20). This means that the profile of generation is also changing, with more reliable 'baseload' power sources such as coal and gas fired plants being replaced with intermittent renewable sources such as wind.

13.3 At the same time, demand for energy continues to rise, driven by a growing population and ever-increasing demand for heating and electricity services. National Grid's Future Energy Scenarios (FES), the forecasts used across the energy industry to inform the development of the UK's gas and electricity systems, predict that by 2050, an increase in capacity will be required of between 85 and 165% over existing.[13] (CD33)

13.4 It is in this context, and with the aim of maintaining an energy supply that is sustainable, secure and reliable, that Government has expressly recognised, in NPS EN-1 and EN-5, an immediate need for new sources of energy generation.[14] (CD5)

13.5 Those same Government policy documents also acknowledge that developing new sources of energy generation alone is not however a complete solution. Those sources must be supported by appropriate transmission and distribution infrastructure, capable of handling increases in demand and supporting the more complex system of supply that will result from diversified and predominantly renewable-based energy sources[15] (CD5 and CD19) and electricity interconnectors such as the Viking Link Interconnector are acknowledged as having a vital role to play in achieving this.[16] (CD5)

13.6 Consequently, Government's March 2016 *National Infrastructure Delivery Plan 2016-2021*[17] (CD34) confirmed the Government's ambition to achieve at least 9GW of additional interconnection capacity, comparing to the 4GW of current installed capacity. This has more recently been supplemented by National Grid's analysis which indicates that a total capacity of 17.4GW (or an additional 13.4GW of interconnection capacity) would provide *"optimal benefit"*.

13.7 It is therefore clear from this section 13 and sections 2.4 and 8 of this Statement, that European and UK energy policy envisage that interconnectors should play an important role in modernising electricity transmission across Europe and should deliver significant benefits to the UK market.

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12 DECC, *Planning our electric future: a White Paper for secure, affordable and low-carbon electricity* (July 2011).

13 FES July 2018.

14 NPS EN-1, 2.2.20 and 3.7.7.

15 NPS EN-1 3.7.2; EN-5 1.1.1.

16 NPS EN-1 3.3.1.

17 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/520086/2904569_nidp_deliveryplan.pdf

13.8 The contribution that the Viking Link Interconnector will make to the existing need for interconnection is significant. In offering 1.4MW of installed interconnector capacity, it will provide an immediate additional 40% to the UK's current installed capacity, helping the UK achieve benefits of security of supply, affordable energy and offsetting the need for new generation.

13.9 It is clear from section 10 above, and section 15 below, that whilst NGVL continues to seek to acquire rights and interests by agreement where possible on appropriate commercial terms, it will not be possible to acquire all outstanding interests and rights by agreement. Furthermore, there are unknown ownerships in the Order Land, for which it has not been possible to establish the identity of the landowners following reasonable and diligent enquiry. It is therefore essential that the Order is confirmed to facilitate the development of the Viking Link Interconnector. All of the land required for the UK Onshore Scheme has been included in the Order, even where option agreements have been concluded with landowners. This is to ensure that the scheme is not impeded by the subsequent discovery (despite diligent enquiries) of any third party interests in that land, or by the inability to exercise the option agreements that have been secured for some reason. The reasoning for including land in the Order even where agreement has been reached has been explained to landowners.

13.10 Projects of the scale and complexity of the Viking Link Interconnector, with its UK, North Sea and Danish components, require the co-ordination of a number of stakeholders, and commitment of significant resources. The lead-in process to develop and procure the construction of a major infrastructure project of this nature is very lengthy, as it involves site assembly, planning, engineering, design, funding and procurement of contractors. The current delivery programme is explained in section 11.25 above. The certainty of having control of the whole Order Land is therefore vital to the delivery of the Viking Link Interconnector, so that NGVL and Energinet may ensure that it comes forward in a timely, efficient and co-ordinated manner.

13.11 Without the Order, the land and rights required for the UK Onshore Scheme cannot be secured in a timescale which will enable the component elements of the Viking Link Interconnector to be co-ordinated and delivered within a reasonable time period, if at all.

13.12 Without the Viking Link Interconnector, the opportunity to advance UK and European energy and planning policy objectives will be lost, with potentially significant and direct impacts upon on the UK's security of electricity supply and energy prices for business and private consumers.

13.13 NGVL does not consider that these objectives could be achieved by any other means such as alternative proposals put forward by owners of the land. Nor are there any alternative locations which are suitable for the purpose for which the land and new rights are being acquired. As explained in section 5, alternative routes were considered as part of the development of the UK Onshore Scheme, and the reasons for rejecting these have been explained. Furthermore, as explained above in section 10.3, where landowners have made requests to vary the route insofar as it affects their landholding, NGVL has given proper consideration to these requests. Whilst in some cases it has been possible to accommodate landowner change requests, this has not been practicable in all circumstances.

13.14 NGVL therefore considers that there is a compelling case in the public interest for the confirmation of the Order.

14. HUMAN RIGHTS CONSIDERATIONS AND EQUALITY ACT

Human Rights

14.1 Each plot of land described in the Order is required either for the purposes of the Viking Link Interconnector, or is needed to facilitate, or is incidental to the Viking Link Interconnector.

14.2 NGVL is taking a proportionate approach to compulsory purchase and, rather than seeking to acquire the freehold title to all of the Order Land, is seeking to acquire a combination of freehold title (for the convertor station and the permanent access road thereto, to ensure safety and security) and permanent rights (such as the rights to install and maintain the cables and rights of access). NGVL is also seeking to acquire positive rights to protect the underground infrastructure forming part of the Viking Link Interconnector from interference and associated damage, and to prevent injury to landowners and/or members of the public which may occur as a result of such interference. This approach is explained in more detail below.

14.3 NGVL has sought to acquire the rights and interests in land which are required to deliver the Viking Link Interconnector through private treaty negotiation. Details of the negotiations to date are set out in section 10 and Appendix 3 of this Statement.

14.4 NGVL considers that it has taken a proportionate approach to land assembly, having regard to the impact on those holding interests in the Order Land. NGVL has sought to acquire only such land and/or interests which are absolutely necessary for the Viking Link Interconnector to proceed.

14.5 Notwithstanding the substantial efforts that have been made to acquire interests in the land by way of voluntary agreement, as at the date of making the Order, NGVL has been unable to secure those interests by negotiation. It is therefore necessary to seek a range of compulsory powers, to enable delivery of the Viking Link Interconnector.

14.6 Negotiations to acquire interests by private treaty will continue in parallel with the CPO process. Where an agreement is reached with the owner of any part of the land required for the cable routes, that land, save where expressly stated otherwise, will be retained as part of the Order Land. This will enable NGVL (and its successors) to acquire rights in respect of any third party interests that may subsist in the land which might otherwise delay, impede or prevent the implementation or operation of the Viking Link Interconnector. This is the approach recommended in the General Overview at paragraph 2 of the CPO Guidance (CD3).

14.7 With regard to Human Rights, Section 6 of the Human Rights Act 1998 (CD35) prohibits public authorities from acting in a way which is incompatible with rights protected by the European Convention on Human Rights ("the Convention"). The position is summarised in paragraph 12 of the CPO Guidance (CD3), which states that a compulsory purchase order should only be made where there is *"a compelling case in the public interest".* The CPO Guidance (CD3) makes it clear that an acquiring authority should be sure that the purposes for which it is seeking compulsory purchase powers sufficiently justify interfering with the human rights of those with an interest in the land affected. In making this assessment, an acquiring authority should have regard, in particular, to the provisions of Article 1 of the First Protocol to the Convention, and in the case of dwelling, Article 8.

14.8 Article 1 of the First Protocol states that:

"…Every natural or legal person is entitled to peaceful enjoyment of his possessions" and "no one shall be deprived of his possessions except in the public interest and subject to the conditions provided for by the law and by the general principles of international law…".

14.9 Whilst owners and occupiers of the Order Land may be deprived of their property/interest in property if the Order is confirmed, this will be done in accordance with the law. NGVL is only seeking to purchase the freehold title to the Order Land in two specific circumstances, i.e. for the convertor station and the permanent access road to ensure safety and security. The majority of the Order Land is proposed to be affected by new rights only. The Order is being promoted in the public interest as required by Article 1 of the First Protocol and the public benefits have been set out in detail earlier in this Statement. NGVL considers that the Order will therefore strike the right balance between the public interest in the implementation of the Viking Link Interconnector and those private rights that will be affected by the Order.

14.10 Article 6 of the Convention provides that:

"In determining his civil rights and obligations… everyone is entitled to a fair and public hearing within a reasonable time by an independent and impartial tribunal established by law."

14.11 The Viking Link Interconnector has been extensively publicised and consultation has taken place with the community and key stakeholders in the region. All those affected by the Order will be notified, will have the right to make representations and objections to the Secretary of State, and objecting parties will have the right to be heard at a public inquiry. It has been held that statutory processes are in compliance with Article 6 of the Convention.

14.12 Those whose interests are acquired under the Order will also be entitled to compensation which will be payable in accordance with the Compulsory Purchase Compensation Code. The Compensation Code has been held to be compliant with Article 8 and Article 1 of the First Protocol to the Convention.

14.13 NGVL has sought to keep any interference with the rights of those with interests in the Order Land to a minimum. The land within the Order has been limited to the minimum required for the Viking Link Interconnector infrastructure to be installed, operated and maintained. Furthermore, the route of the underground cables and associated infrastructure has been selected so as to minimise the impact on settlement and land use as far as possible.

14.14 The requirements of the Human Rights Act 1998 and the Convention, particularly the rights of property owners, have therefore been fully taken into account. There is a compelling case in the public interest for the Order to be made and confirmed, and that interference with the private rights of those with an interest in the land affected would be the inevitable result of the exercise of compulsory purchase powers conferred by the Order and would be lawful, justified and proportionate.

Equality Act

14.15 NGVL has, as a non-public body exercising public functions, taken account of the public sector equality duty set out in s149(1) of the Equality Act 2010 in promoting the Order and has undertaken an extensive community consultation and landowner engagement exercise as explained in section 10 above and detailed in Appendix 3.

14.16 NGVL is aware of the potential for adverse health impacts during construction on two residents with learning difficulties (one a minor); both living not far from where the HVDC cables will be installed. One of the properties is near a TWA and the other is close to a TCC.

Following consultation with both families, NGVL has been able to identify a package of 'assistance' measures, which are primarily focussed upon providing advance notice of works and any road closures, and ensuring that there is particularly close liaison with the families so as to avoid any distressing 'unexpected' activity in the vicinity of each respective family home. Contact details have been provided to the families so they are able to speak directly to a member of the NGVL team if they have any questions or concerns. In view of the measures proposed, NGVL is satisfied that the UK Onshore Scheme will not give rise to any unacceptable effects on these young people, and NGVL has been given no indication that this view is not shared by their families.

14.17 Save as explained above, NGVL does not consider that the UK Onshore Scheme will give rise to any impacts or differential impacts on persons who share a relevant protected characteristic as defined in the Equality Act, or upon persons who do not share such relevant protected characteristic.

15. SPECIAL CONSIDERATIONS

15.1 This section deals with those parts of the Order Land for which special provision is made.

Crown Land

15.2 There are no proposals to compulsorily acquire any Crown interest. However, the proposed offshore works affect land owned and/ or controlled by the Crown Estate for which an agreement for lease is currently being negotiated. Negotiations are at an advanced stage and NGVL anticipated the lease being completed in Q2 2019.

15.3 The proposed onshore works affect Crown land and interests as follows:

- Plots 20-11, 20-12, 20-13 and 21-22 - the Queen's most excellent majesty as mines and minerals owner, the interest relates to minerals below 200ft only and therefore does not affect the rights we are seeking.

- Plot 21-23- the Queen's most excellent majesty as presumed owner of subsoil, this interest also relates to minerals below 200ft which is also below the public highway and so again does not affect the rights we are seeking.

- Plots 31-08, 31-09, 31-10, - land held by the Secretary of State for Transport as administered by Highways England Historical Railways Estate;

- Plot 31-11 – land held by the Secretary of State for Transport as administered by Highways England Historical Railways Estate, in respect of river bed;

- Plots 35-04 and 35-07- Crown Estate Commissioners as beneficiary of restriction on freehold. The restrictions relate to a Deed dated 1st Dec 2005, between the landowner and the Crown Estate, whilst we are not aware of the specific nature of the deed we have considered the rights we are acquiring in this area and do not at this stage consider there is any need to acquire rights from the Crown.

- Plot 44-01- part of drain held by the Duchy of Lancaster;

- Plots 44-02 and 44-03 - held by the Duchy of Lancaster on behalf of the Crown which are required for the purpose of constructing a permanent access road to the new converter station and a temporary construction compound respectively;

- Plot 44-04 - Duchy of Lancaster in respect of rights reserved by a Conveyance.

15.4 NGVL are at an advanced stage of negotiations with the Duchy of Lancaster for a lease with associated access rights over plots 44-01, 44-02 and 44-03 and also with Highways England Historical Railways Estate for an easement over plots 31-08, 31-09, 31-10 and 31-11.

Open Space Land

15.5 Schedule 3 to the Acquisition of Land Act 1981 ("the 1981 Act") applies to the compulsory purchase of rights over certain specified types of land and affords it special protection.

15.6 Paragraph 6 of Schedule 3 to the 1981 Act contains restrictions which apply to the acquisition of rights over land forming part of a common, open space or fuel or field garden allotment:

"common" includes any land subject to be enclosed under the Inclosure Acts 1845 to 1882, and any town or village green;

"fuel or field garden allotment" means any allotment set out as a fuel allotment, or a field garden allotment, under an Inclosure Act

"open space" means any land laid out as a public garden, or used for the purposes of public recreation, or land being a disused burial ground.

15.7 A compulsory purchase order which authorises the compulsory purchase of rights over land forming part of a common, open space or fuel or field garden allotment shall be subject to special parliamentary procedure, unless the Secretary of State for Housing, Communities and Local Government certifies that:

- **paragraph 6(1)(a)**- the land, when burdened with the new right, will be no less advantageous to those persons in whom it is vested and other persons, if any, entitled to rights of common or other rights, and to the public, than it was before; or

- **paragraph 6(1)(aa)**- the right is being purchased to secure preservation/improve management of the land; or

- **paragraph 6(1)(b)**- land can be given in exchange for the right which is adequate to compensate the persons in whom the land is vested, those persons entitled to rights of common or other rights over that land, and the public, for the disadvantages which result from the acquisition of the right; or

- **paragraph 6(1)(c)**- the land affected by the right does not exceed 250 square metres and it is not necessary, whether in the interests of the persons, if any, entitled to rights of common or other rights or in the interests of the public, to give land in exchange for the right.

15.8 Plot 01-11 is a section of beach, walkway and walkway/slipway leading to Moggs Eye Beach at Boygrift which is owned by ELDC.

15.9 Plots 01-07 and 01-10 comprise of an area of grassland/sand dunes and seawall. Despite NGVL having made diligent enquiries the ownership of these plots is unknown.

15.10 Plots 01-04, 01-06, 01-08, 01-09 comprise of walkway/public cycle track and sea defences. These plots are owned by Lincolnshire County Council ("LCC").

15.11 The aforementioned plots comprise partly of open space land known as the 'Sandhills' which was designated as such by the Lindsey Council (Sandhills) Act 1932 ("Sandhills Act") and partly of land which albeit not designated as open space, is 'Open Space' for the purposes of paragraph 6(5) of Schedule 3 to the ALA 1981 due to its use by the public for the purposes of recreation ("Open Space Land").

15.12 The Open Space Land is currently freely accessible to, and is in use by the general public for, recreational activities such as dog walking and other leisure activities.

15.13 Access Only Rights are sought over Plots 01-04, 01-09, 01-10 and 01-11; Cable Construction Rights and Landfall Zone Rights are sought over Plots 01-06, 01-07 and 01-08 (please see section 7 above for a full description of these rights).

15.14 Below is a brief description of the way in which the rights will be exercised over the Open Space Land during construction and operation, and the extent to which they will interfere will the public use of the open space:

Construction

15.15 Plots 01-04, 01-09, 01-10 and 01-11 are required to provide access onto the beach to facilitate HDD activities at the landfall point (i.e. the installation of cables beneath the existing sea defences). This will involve access predominantly on foot, and occasionally with plant and machinery. It is not envisaged that any physical works will need to be carried out on these plots to facilitate access. No barriers or fences will be used to prevent public access along the promenade.

15.16 To minimise disruption to public use of Plots 01-04, 01-09, 01-10 and 01-11 and to avoid any conflict with the public, all vehicles or construction equipment travelling over these plots will be accompanied by a banksman, who will escort the vehicle or construction equipment, stop it should any member of the public be passing through, and only continue once the area is clear and it safe to do so.

15.17 The HDD itself will cross beneath Plots 01-06, 01-07 and 01-08, and will be at a depth of approximately 12m below the surface. Disruption to any public access during the construction works will therefore be limited to controlled crossings of NGVL construction vehicles across Plots 01-04, 01-09, Plot 01-10 and Plot 01-11. A pre-entry photographic record of condition of the Open Space Land will be taken prior to entry, and repeated on completion of the works, to ensure that the land is left in the same condition as prior to the works.

Operation

15.18 The current use of the Open Space Land by the public will be able to continue throughout the operation of the interconnector. Access over the Open Space Land will only be required by NGVL personnel to carry out routine annual visual inspections and maintenance of the cable route, or in the unlikely event that an emergency repair needs to be carried out to the cables. Routine inspections will require access on foot, and will therefore not result in any restriction to public use of the Open Space Land. An emergency repair would require similar access to that described in paragraph 15.15, above, and the same control measures would be put in place, with plant and machinery access across the Open Space Land being controlled by banksmen, to minimise disruption and avoid conflict with public use.

15.19 Again, no physical works are anticipated to facilitate such access. As the cables will be buried under part of the Open Space Land (i.e. underneath Plots 01-06, 01-07 and 01-08) by HDD, no visual impacts of the cable installation will remain on the surface. Route marker posts will be installed to indicate the position of the cables.

15.20 There will be some minor interference with the public's use of the Open Space Land during the construction phase of the Viking Link Interconnector. However, this will only be for a limited purpose i.e. taking access and for a short period of time.

15.21 Once the construction phase has been completed (estimated 2-3 months duration) access over the Open Space Land will only need to be taken on an annual basis, on foot, to carry out routine visual inspections and maintenance and in the unlikely event of an emergency repair being required. The physical appearance of the Open Space Land will be unaffected and the recreational uses for which the Open Space Land is currently used will not be affected by the acquisition of the new rights.

15.22 In the circumstances described above, it is clear that the rights proposed to be acquired by NGVL will not render the Open Space Land any less advantageous than at present and as such no exchange land is considered to be required. NGVL has, accordingly, made an application to the Secretary of State for Housing, Communities and Local Government for a certificate to that effect.

Statutory Undertakers

15.23 Paragraph 3 of Schedule 3 to the 1981 Act provides that where land over which a right is to be acquired by virtue of a compulsory purchase order includes land which has been acquired by a statutory undertaker for the purposes of its undertaking and that undertaker makes and maintains a representation against its confirmation, the order cannot be confirmed including that statutory undertaker's land, unless the Secretary of State is satisfied that the rights over land:

(a) can be purchased without serious detriment to the carrying on of the undertaking, or

(b) that any detriment to the carrying on of the undertaking, in consequence of the acquisition of the right, can be made good by the undertakers by the use of other land belonging to or available for acquisition by them

and a certificate is provided to that effect.

15.24 A number of Plots of the Order Land are owned by statutory undertakers. The table below details those Plots, which statutory undertakers own them and the status of negotiations. As can be seen, NGVL is in advanced negotiations with all of the statutory undertakers who own Order Land with a view to securing the rights it requires for the UK Onshore Scheme.

Statutory Undertaker	***Plot No***	***Cable Length***	***HoT'S in Negotiation***	***HoT's Agreed***	***Option Agreements Complete***
Environment Agency	**40-01,** **40-02,** **40-03,** **40-04,** **34-02,** **34-03,** **34-04,** **34-05,** **34-06,** **34-07,** **34-08** **31-13** **31-14** **31-15**	**210.45**	**1**	**0**	**0**

	31-16 **21-29** **21-30** **21-31** **21-32** **21-33** **21-34** **21-01** **21-02** **21-03** **21-04** **21-05** **21-06** **21-07** **21-08**				
Canal & River Trust	**31-11** **31-12**	**44.79**	**0**	**0**	**0**
National Grid Electricity Transmission NGET	**41-01** **41-02** **41-03** **41-04** **41-21** **41-22**	**401.32**	**0**	**1**	**0**

15.25 For the avoidance of doubt, Section 17 of and paragraph 4(3) of Schedule 3 to the 1981 Act provide that an order shall not be subject to special parliamentary procedure where the person acquiring the interest is a statutory undertaker. As NGVL holds an Electricity Interconnector Licence under the 1989 Act, it is a statutory undertaker for the purposes of the 1981 Act, and special parliamentary procedure would not apply in the event that an objection under paragraph 3 of schedule 3 was outstanding.

15.26 NGVL is confident that rights can be purchased over the aforementioned Plots without serious detriment to the carrying on of the relevant undertaking and that a certificate can accordingly be granted.

15.27 Witham Fourth District Internal Drainage Board has freehold interests in land along the HVDC route. Whilst this Board is not statutory undertaker for the purposes of Paragraph 3 of Schedule 3 to the 1981 Act, NGVL recognises that it has functions deriving from byelaws as regards the maintenance of drainage. As such NGVL is engaging with the Board proactively and collaboratively to formalise a voluntary agreement to acquire rights over its freehold plots, whilst ensuring that the Board's functions are not interfered with. Heads of Terms for an agreement were signed by the Board on the 8th of April 2019.

15.28 While Witham Fourth District Internal Drainage Board is not statutory undertaker for the purposes of Paragraph 3 of Schedule 3 to the 1981 Act and a certificate does not therefore need to be obtained from the Secretary of State, there wouldn't in any event be any material detriment to the carrying on of the Board's functions as a result of the acquisition of rights over its land by NGVL.

Gas and Electricity Markets (GEMA) Consent

15.29 As explained in section 3 above, NGVL is the holder of a 1989 Act Electricity Interconnector Licence.

15.30 By virtue of paragraph 2(1) of Schedule 3 to the 1989 Act, no order may be made which authorises the compulsory purchase of land (or rights in land) belonging to another 1989 Act licence holder, unless and until consent to the making of the order has been obtained from GEMA.

15.31 The only land to which this requirement could apply is land owned by NGET at the NGET Substation (Plots 41-01, 41-02, 41-03, 41-21 and 41-22). Negotiations to acquire the rights required over this land are at an advanced stage. However, it may be necessary for consent to the inclusion of this land in the Order to be sought from GEMA prior to confirmation .

16. OBJECTIONS TO THE ORDER'

16.1 A total of 13 objections were made to the Order. The table at Appendix 5 of this Statement details those objections, summarises their grounds, and sets out NGVL's response to each of them.

17. VIEWS OF GOVERNMENT DEPARTMENTS

17.1 None.

18. CONCLUSION

18.1 By virtue of Schedule 3 of the 1989 Act (CD2), NGVL may be authorised to purchase compulsorily the land and rights in the land required to enable NGVL to carry on the activities authorised by its Licence, i.e. to purchase land and/or rights required to enable it to construct, extend, operate and maintain the Viking Link Interconnector.

18.2 All of the rights and interests in land proposed to be acquired under the Order are required for the purpose of constructing, operating and maintaining the Viking Link Interconnector and are reasonable and proportionate. Importantly, NGVL is taking a proportionate approach to compulsory purchase, in line with policy and guidance, and does not propose to acquire any land or rights beyond those that are reasonably required.

18.3 Paragraph 12 of the CPO Guidance (CD3) states that a compulsory purchase order should only be made where there is a compelling case in the public interest and explains that there are certain fundamental principles that a confirming minister should consider when deciding whether or not to confirm a compulsory purchase order. These fundamental principles are as follows:

That NGVL as acquiring authority has a clear idea of how it intends to use the land (or rights over land) which it is proposing to acquire (paragraph 13 of the CPO Guidance (CD3)).

18.3.1 Section 6 of this Statement describes the infrastructure that will comprise the UK Onshore Scheme (i.e. the HVAC and HVDC routes, the converter station site, and the converter station accesses road). It explains the factors that governed the widths of the HVAC and HVDC construction corridors, and will govern the final alignment and widths of the HVAC and HVDC operation and maintenance corridors, over which rights for those purposes will need to be acquired. It also explains how the land to be acquired for the converter station site and its access road will be utilised and the need for rights over land to create temporary construction compounds and working areas; to obtain access to the construction corridors; and to carry out land drainage works.

That the Viking Link Interconnector is unlikely to be blocked by any physical or legal impediments to implementation (paragraph 15 of the CPO Guidance (CD3)).

18.3.2 As explained in section 12 of this Statement, all the primary consents required to deliver the Viking Link Interconnector have been obtained by NGVL.

That all the necessary resources are likely to be available within a reasonable time-scale (paragraphs 13 and 14 of the CPO Guidance).

18.3.3 Section 11 of this Statement explains that NGVL has assessed the costs of implementing the Viking Link Interconnector (of which the UK Onshore Scheme forms part), and the costs of acquiring the necessary land and rights over land required for the UK Onshore Scheme.

18.3.4 On the 26th of September 2018 the National Grid plc board made a commitment to fund the Viking Link Interconnector project from its operational revenues, including the costs of acquiring the necessary land and rights over land needed for the UK Onshore Scheme, whether such land/rights are acquired by agreement or purchased compulsorily, and settling any additional claims for compensation.

18.3.5 NGVL will have access to an inter-company facility, allowing it to draw funds from National Grid plc (its ultimate parent) which has a strong credit rating and available liquidity.

18.3.6 NGVL is satisfied that the requisite funding is available to meet the construction and land acquisition/compulsory purchase compensation costs associated with the UK Onshore Scheme as and when required (including any advance payments and blight claims).

That the purposes for which the compulsory purchase order is made justify interfering with the human rights of those with an interest in the land affected and particular consideration should be given to the provisions of Article 1 of the First Protocol to the Convention (CD9) and, in the case of a dwelling, Article 8 of the Convention (paragraph 12 of the CPO Guidance (CD3)).

18.3.7 The Order is being promoted in the public interest as required by Article 1 of the First Protocol and NGVL considers that the Order will strike the right balance between the public interest in the implementation of the Viking Link Interconnector and those private rights that will be affected by the Order.

18.3.8 As explained in section 6 of this Statement, each plot of land described in the Order is required either for the purposes of the Viking Link Interconnector, or is needed to facilitate, or is incidental to the Viking Link Interconnector.

18.3.9 Whilst owners and occupiers of the Order Land may be deprived of their property/interest in property if the Order is confirmed, this will be done in accordance with the law and NGVL is only seeking the acquisition of the freehold title to the Order Land in two specific circumstances i.e. for the convertor station site and the permanent access road thereto; the majority of the Order Land is proposed to be affected by new rights only.

18.3.10 Those whose interests are purchased under the Order will also be entitled to compensation which will be payable in accordance with the Compulsory Purchase Compensation Code. The Compensation Code has been held to be compliant with Article 8 and Article 1 of the First Protocol to the Convention.

18.3.11 The requirements of the Human Rights Act 1998 (CD35) and the Convention, particularly the rights of property owners, have therefore been fully taken into account. There is a compelling case in the public interest for the Order to be made and confirmed, and the interference with the private rights of those affected that would be the inevitable result of the exercise of compulsory purchase powers conferred by the Order would be lawful, justified and proportionate.

That NGVL has taken reasonable steps to acquire all of the land and rights included in the Order by agreement (paragraph 2 of the CPO Guidance (CD3)).

18.3.12 NGVL is committed to securing the necessary land and rights required for the UK Onshore Scheme by voluntary agreement. It has made determined and persistent efforts to engage and negotiate with landowners and has agreed Heads of Terms for agreements with 83 landowners representing 89% of the HVDC route and 40% of the HVAC route. Negotiations with the owners of the converter station site and land required for the access road thereto are also at an advanced stage.

18.3.13 Notwithstanding the significant progress made to date, in order to provide certainty that all the land and rights required for UK Onshore Scheme can be secured, it has been necessary for NGVL to progress the Order in parallel with private treaty negotiations. This is envisaged by paragraph 2 of the Guidance (CD3). However, NGVL remains committed to continuing to progress negotiations and secure the necessary land and rights by agreement.

18.4 Accordingly, NGVL considers that the criteria in the Guidance (CD3) are satisfied and that there is a compelling case in the public interest for the confirmation of the Order.

19. LIST OF DOCUMENTS

19.1 A hard copy of the Order, Order Schedule and Order Map can be inspected at the following locations at all reasonable hours:

19.1.1 Planning Department, East Lindsey District Council, Room 51, Tedder Hall, Manby Park, Manby Louth, Lincolnshire, LN11 8UP;

19.1.2 Planning Department, South Holland District Council, Priory Road, Spalding, PE11 2XE;

19.1.3 Planning Department, North Kesteven District Council, Kesteven Street, Sleaford, NG34 7EF; and

19.1.4 Planning Department, Boston Borough Council, Municipal Buildings, West Street Boston, Lincolnshire, PE21 8QR.

19.2 Copies of the following documents which are referred to in this Statement of Case may also be viewed online at the following address: http://viking-link.com/consultations/land-interests/compulsory-purchase-order/

CD1	National Grid Viking Link Interconnector Licence dated 12 November 2014
CD2	Electricity Act 1989 (Extracts)
CD3	The Ministry of Housing, Communities and Local Government Guidance on Compulsory purchase process and The Crichel Down Rules (February 2018)
CD4	Compulsory Purchase (Inquiries Procedure) Rules 2007
CD5	Overarching National Planning Statement for Energy (EN-1) (July 2011)
CD6	Department of Energy and Climate Change (DECC) policy document *'More Interconnection: improving energy security and lowering bills'* (December 2013)
CD7	National Infrastructure Commission's '*National Infrastructure Assessment'* (July 2018)
CD8	Viking Link Interconnector Licence: Standard Conditions
CD9	Convention for the Protection of Human Rights and Fundamental Freedoms (1950)
CD10	10.1 Figure 2.5 of the ES; 10.2 Chapter 2 of the ES; 10.3 Chapter 5 of the ES; 10.4 Chapter 17 of the ES.
CD11	Route Corridor Selection Report
CD12	Preferred Route Report
CD13	Phase 2 Consultation Feedback Report

CD14	Construction (Design and Management) Regulations 2015
CD15	Soil Handling and Storage Protocol
CD16	Waste Management Plan
CD17	Regulation on guidelines for trans-European energy infrastructure (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 (TEN-E Regulation)
CD18	UK Manual of Procedures: The Permitting process for Projects of Common Interest in the UK (May 2014)
CD19	National Policy Statement for Electricity Networks Infrastructure (EN-5) dated July 2011
CD20	The Department of Energy and Climate Change (now the Department for Business, Energy and Industrial Strategy) 'Planning our electric future: a White Paper for secure, affordable and low-carbon electricity' (July 2011)
CD21	National Planning Policy Framework dated February 2019
CD22	National Infrastructure Commission *Smart power: A National Infrastructure Commission Report'*
CD23	The Central Lincolnshire Local Plan 2017 (Extracts)
CD24	Boston Borough Council Local Plan April 1999 – Saved Policies (Extracts)
CD25	South Holland District Local Plan July 2006 (Extracts)
CD26	26.1 East Lindsey Local Plan Alteration 1999 – Saved Policies 26.2 East Lindsey District Council Local Plan Core Strategy, July 2018
CD27	BCC planning permission Ref. B/17/0340
CD28	NKDC planning permission Ref. 17/1200/FUL
CD29	SHDC planning permission Ref. H04-0823-17
CD30	ELDC planning appeal decision APP/D2510/W/18/3208808
CD31	Code of Practice
CD32	Commission Delegated Regulation (EU) 2018/540 of 23 November 2017
CD33	National Grid's Future Energy Scenarios July 2018
CD34	Infrastructure and Project's Authority National Infrastructure Delivery Plan 2016-2021 (March 2016)
CD35	Human Rights Act 1998

APPENDIX 1- BOOK OF PLANS

APPENDIX 2- RIGHTS PACKAGES

"Access Only Rights" (land coloured orange)	All rights necessary to: a) access the land and adjoining land for the purposes of constructing, installing, commissioning, inspecting, maintaining, repairing, altering, renewing, replacing and removing or decommissioning the electricity interconnector infrastructure, and carrying out de-watering and drainage works and installing, altering or reinstating land drainage systems, with or without vehicles, plant, machinery, apparatus, equipment, materials and personnel; b) carry out works to facilitate such access including to construct, lay down, use and remove access roads including any necessary temporary bridging, culverting or diversion of water courses and drains, modifying road verges and junctions and installing, using, altering, diverting, and removing services and utilities.
"Access and Drainage Rights" (land coloured yellow)	All rights necessary to: a) access the land and adjoining land for the purposes of constructing, installing, commissioning, inspecting, maintaining, repairing, altering, renewing, replacing and removing or decommissioning the electricity interconnector infrastructure, and carrying out de-watering and drainage works and installing, altering or reinstating land drainage systems, with or without vehicles, plant, machinery, apparatus, equipment, materials and personnel; b) carry out works to facilitate such access including to construct, lay down, use and remove access roads including any necessary temporary bridging, culverting or diversion of water courses and drains, modifying road verges and junctions and installing, using, altering, diverting, and removing services and utilities; and c) carry out de-watering and drainage works and to install, alter, reinstate or remove land drainage systems.
"Cable Construction Rights" (land coloured blue)	All rights necessary for the purposes of or incidental to the construction of the electricity interconnector infrastructure, including: a) to construct and install the electricity interconnector infrastructure within, upon or over the land, including using trenchless techniques such as horizontal directional drilling; b) to test and commission the electricity interconnector infrastructure installed within, upon or over the land and to remedy initial faults and defects in it at any

	time prior to the date on which it is energised and ready for commercial operation; c) to enter the land and carry out surveys and investigations, including aerial surveys (including the right to fly an unmanned aircraft over the land and to enter and retrieve and recover any such unmanned aircraft from the land); d) to carry out archaeological works, environmental and/or ecological mitigation; e) to carry out works required or permitted by a planning permission and/or consent or licences; f) to remove and replace, fell, trim or lop trees, bushes, crops and other vegetation, including the removal of hedgerows; g) to erect and remove fencing; h) to store and stockpile and where necessary use, manage and process plant, machinery, apparatus, and materials (including excavated material) and/or equipment; i) to access the land with or without vehicles, plant, machinery, apparatus, equipment, materials and personnel*;* j) construct, lay down, use and remove access roads including any necessary temporary bridging, culverting or diversion of water courses and drains; k) to carry out de-watering and drainage works and install, alter, reinstate or remove land drainage systems; l) to discharge water into existing drains and watercourses; m) to protect and prevent damage to or interference with the electricity interconnector infrastructure and the construction of the same; n) to prevent any works on or use of the land that would prevent access to the electricity interconnector infrastructure; o) to erect, create, use and remove welfare facilities including portable toilets, portable cabins and offices and electricity generators; p) to install, use and remove artificial lighting;

	q) to install, use, alter, divert and remove services and utilities.
"Construction Compound Rights" (land coloured green)	All rights necessary for the purposes of or incidental to the construction of the electricity interconnector infrastructure, including: • to erect, create, use and remove a works compound which may include portable cabins and offices, and welfare facilities including portable toilets and electricity generators; • to store, stockpile and where necessary use, manage and process plant, machinery, apparatus, materials (including excavated material) and/or equipment; • to access the land with or without vehicles, plant, machinery, apparatus, equipment, materials and personnel*;* • to fence, erect hoardings or signage or otherwise secure the compound; • to carry out de-watering and drainage works and install, alter or reinstate land drainage systems; • to discharge water into existing drains and watercourses; • to install, use and remove artificial lighting; • to install, use, alter, divert and remove services and utilities.
"Drainage Only Rights" (land coloured brown)	All rights necessary to carry out de-watering and drainage works and install, alter, reinstate or remove land drainage systems, including the right to access the land with or without vehicles, plant, machinery, apparatus, equipment, materials and personnel*.*
"HVAC Cable Rights" (land coloured blue)	All rights necessary for the purposes of or incidental to the retention, operation, protection, maintenance, repair, renewal, replacement and decommissioning of the electricity interconnector infrastructure, including: a) to retain, commission, operate, inspect, maintain, repair, alter, renew, replace and remove or decommission the electricity interconnector infrastructure; b) to take access with or without vehicles, personnel and plant, machinery, apparatus, equipment and materials for such purposes;

	c) to carry out de-watering and drainage works and install, alter, reinstate or remove land drainage systems; d) to enter the land and carry out surveys and investigations, including aerial surveys (including the right to fly an unmanned aircraft over the land and to enter and retrieve and recover any such unmanned aircraft from the land); e) to protect and prevent damage to or interference with the operation and maintenance of the electricity interconnector infrastructure; f) to prevent any works on or use of the land that would prevent access to or the operation and maintenance of the electricity interconnector infrastructure; and g) to prevent changes to the use, or level of the surface of, the land. The HVAC Cable Rights may be acquired over such part of the Order Land plots described in Table 1 of the Schedule to the Order as may be necessary PROVIDED THAT the 'rights corridor' within which the HVAC Cable Rights shall be acquired shall not exceed: i. 50 metres in width where trenchless installation techniques, such as horizontal directional drilling, are used ii. 25 metres in width in all other cases; PROVIDED FURTHER THAT the width restrictions at paragraphs i. and ii. above shall not apply to the acquisition of the access rights described at paragraph b) above, which rights may be acquired over such part of the Order Land plots described in Table 1 of the Schedule to the Order as may be necessary.
"HVDC Cable Rights" (land coloured blue)	All rights necessary for the purposes of or incidental to the retention, operation, protection, repair, renewal, replacement, maintenance and decommissioning of the electricity interconnector infrastructure, including: a) to retain, commission, operate, inspect, maintain, repair, alter, renew, replace and remove or decommission the electricity interconnector infrastructure; b) to take access with or without vehicles, personnel and plant, machinery, apparatus, equipment and materials for such purposes;

	c) to carry out de-watering and drainage works and install, alter, reinstate or remove land drainage systems; d) to enter the land and carry out surveys and investigations, including aerial surveys (including the right to fly an unmanned aircraft over the land and to enter and retrieve and recover any such unmanned aircraft from the land); e) to protect and prevent damage to or interference with the operation and maintenance of the electricity interconnector infrastructure; f) to prevent any works on or use of the land that would prevent access to or the operation and maintenance of the electricity interconnector infrastructure; and g) to prevent changes to the use, or level of the surface of, the land. The HVDC Cable Rights may be acquired over such part of the Order Land plots described in Table 1 of the Schedule to the Order as may be necessary PROVIDED THAT the width of the 'rights corridor' within which the HVDC Cable Rights may be acquired shall not exceed: i. 25 metres in width where trenchless installation techniques, such as horizontal directional drilling, are used ii. 15 metres in width in all other cases; PROVIDED FURTHER THAT the width restrictions at paragraphs i. and ii. above shall not apply to the acquisition of the access rights described at paragraph b) above, which rights may be acquired over such part of the Order Land plots described in Table 1 of the Schedule to the Order as may be necessary.
"Landfall Zone Rights" (land coloured blue)	All rights necessary for the purposes of or incidental to the retention, operation, protection, maintenance, repair renewal, replacement and decommissioning of the electricity interconnector infrastructure, including: a) to retain, commission, operate, inspect, maintain, repair, alter, renew, replace and remove or decommission the electricity interconnector infrastructure; b) to take access with or without vehicles, personnel and plant, machinery, apparatus, equipment and materials for such purposes;

	c) to carry out de-watering and drainage works and install, alter, reinstate or remove land drainage systems; d) to enter the land and carry out surveys and investigations, including aerial surveys (including the right to fly an unmanned aircraft over the land and to enter and retrieve and recover any such unmanned aircraft from the land); e) to protect and prevent damage to or interference with the operation and maintenance of electricity interconnector infrastructure; f) to prevent any works on or use of the land that would prevent access to or the operation and maintenance of the electricity interconnector infrastructure; and g) to prevent changes to the use, or level of the surface of, the land.
"Substation Connection Rights" (land coloured blue)	All rights necessary for the purposes of or incidental to the retention, operation, protection, maintenance, repair, renewal, replacement and decommissioning of the electricity interconnector infrastructure, including unlicensed works required to connect to the existing National Grid substation at Bicker Fen, including: a) to retain, commission, operate, inspect, maintain, repair, alter, renew, replace and remove or decommission the electricity interconnector infrastructure; b) to take access with or without vehicles, personnel and plant, machinery, apparatus, equipment and materials for such purposes; c) to carry out de-watering and drainage works and install, alter, reinstate or remove land drainage systems; d) to enter the land and carry out surveys and investigations, including aerial surveys (including the right to fly an unmanned aircraft over the land and to enter and retrieve and recover any such unmanned aircraft from the land); e) to protect and prevent damage to or interference with the operation and maintenance of the electricity interconnector infrastructure; f) to prevent any works on or use of the land that would prevent access to or the operation and maintenance of the electricity interconnector infrastructure; and

	g)	to prevent changes to the use, or level of the surface of, the land.

APPENDIX 3- LANDOWNER ENGAGEMENT

A summary of the stages and timelines of landowner interaction is provided below:

Date	Description of engagement
February 2016	Initial contact referencing undertaken and consent for access to survey thirteen option sites for location of the converter station requested.
April 2016	Six public consultation events held relating to the proposed landfall location and converter station option sites which were attended by the NGVL Lands Team and NGVL's land agents, Dalcour Maclaren.
August 2016	Contact referencing instigated and requests for consent to undertake walkover surveys over the purple and orange consultation corridors requested.
August/September 2016	Consent obtained to carry out ground investigations, including boreholes, at two proposed converter station site locations, and Cone Penetration Test (CPT) testing at four landfall option sites.
September/October 2016	Ten phase two public consultation events held to consider and compare the suitability of the purple and orange consultation corridors.
December 2016	Letters sent to all persons/bodies with land interests in the consultation area to confirm purple consultation corridor preferred.
January 2017	Consent to access land and carry out ground investigation surveys along the proposed purple corridor obtained from landowners, including a total of twenty-two boreholes and six trial pits.
January 2017	Archaeological investigations undertaken at the proposed converter site locations.
February/March 2017	Consent obtained from landowners to place noise monitoring equipment for noise surveys at twenty-five locations.
15 March 2017	Letter sent to all persons/bodies with land interests in the purple consultation corridor explaining that the corridor had been refined down to a 200m wide 'corridor of interest'.
31 March 2017	Consultation letter sent to all persons/bodies with land interests in 200m corridor, regarding land drainage, together with plans showing their land and identifying the 200m corridor of interest.

March-June 2017	Change requests received from persons/bodies with land interests in the corridor of interest and submitted to the NGVL change request team for consideration.
6 April 2017	Letter sent to landowners and occupiers of land within proposed HVAC corridor and meetings held with them thereafter.
May 2017	Invitations to Public Information Events (PIE's) and Lincolnshire Show sent to landowners, occupiers and their agents.
May 2017	Lands Rights Strategy and Surveyors Fees document circulated to all Land Agents known to be instructed in relation to the project by landowners and occupiers.
May/June 2017	Meetings held with landowners and occupiers regarding temporary construction compound locations, to obtain feedback. Feedback relayed to wider project team.
June 2017	Four Public Information Events held on the 6th, 7th, 15th & 16th of June.
June 2017	Two-day Lincolnshire Show (21st & 22nd June) with hospitality for landowners and PIE banners and information.
June 2017	Consent obtained from landowners to carry out Geophysical surveys across 70% of the proposed route.
August 2017	Letters with plans showing the proposed 'lands rights corridor' issued to all landowners affected by the planning application boundary.
Aug-Oct 2017	Calls to and meetings held with landowners which lead to a number of change review requests being submitted to the wider project team by the Lands Team. This resulted in a number of changes to the design and the route within the planning boundary to address landowner concerns.
September 2017	Heads of Terms issued for the converter station and access road to the landowners and their agents.
November 2017	Heads of Terms issued for the HVDC route.
April 2018	Project Code of Practice issued to all landowners.
May 2018	Revised Heads of Terms issued for HVDC Route to reflect ongoing negotiations and amendments as a result of landowner engagement.
July 2018	Heads of Terms issued for the HVAC route.

July 2018	Conceptual Drainage Design plans issued to all landowners for HVDC.
August 2018	Conceptual Drainage Design plans issued to all landowners for HVAC.
December 2018	Update letter advising that the CPO is intended to be made in January 2019.
January 2019	Advanced notice of intention to made Order issued to all qualifying interests.
February 2019	Order made on the 15th of January, notices of making served on all qualifying interests, erected on site and published in the local press. Objection period expired on the 19th of February.
March 2019	2019 Environmental Survey Programme commenced.
March 2019	Ongoing negotiations for voluntary agreements on Converter Station and Access road, outstanding HVAC and HVDC cable route.

APPENDIX 4- GLOSSARY

Term	Definition
1981 Act	Acquisition of Land Act 1981;
1989 Act	Electricity Act 1989;
ALC	Agricultural Land Classification;
AONB	Lincolnshire Wolds Area of Outstanding Natural Beauty;
BBC	Boston Borough Council
CDM	Construction (Design and Management) Regulations 2015;
Code of Practice	The Viking Link Interconnector Project Code of Practice dated 11 April 2018;
Convention	Convention for the Protection of Fundamental Rights and Freedoms;
ELDC	East Lindsey District Council;
ELLP	East Lindsey Local Plan;
ES	The Environmental Statement which accompanied the Planning Applications;
FID	Financial Investment Decision;
Guidance	The Ministry of Housing, Communities and Local Government's *Guidance on Compulsory purchase process and The Crichel Down Rules* (February 2018);
HDD	Horizontal Directional Drill;
HoTs	Heads of Terms;
HVAC	High Voltage Alternating Current;
HVDC	High Voltage Direct Current;
IDB	Internal Drainage Board;
LCA 1961	The Land Compensation Act 1961;
LCC	Lincolnshire County Council;
LDC	Land Drainage Consultants Limited;
Licence	National Grid Viking Link Electricity Interconnector Licence dated 12 November 2014;
MHCLG	Ministry of Housing, Communities and Local Government;
MLWS	Mean Low Water Springs;
MW	Megawatt;
National Grid	The National Grid group of companies;
NETS	National Electricity Transmission System;
NGET	National Grid Electricity Transmission PLC;
NGET Substation	The existing 400Kv substation at Bicker Fen, Lincolnshire;
NGVL	National Grid Viking Link Limited;
NGIH	National Grid Interconnector Holdings Limited;
NKDC	North Kesteven District Council;
NIC	National Infrastructure Commission;
NPS	National Policy Statement;

Order	National Grid Viking Link Limited (Viking Link Interconnector) Compulsory Purchase Order 2018;
Planning Appeal	NGVL's appeal against the decision of East Lindsey District Council to refuse planning application ref. N/110/01549/17, made on 27 July 2018;
Planning Applications	The planning applications for the UK Onshore Scheme with reference numbers N/110/01549/17, B/17/0340, 17/1200/FUL and H04-0823-17.
SHSP	Soil Handling and Storage Protocol;
TCC	Temporary Construction Compound;
TEN-E Regulation	Regulation on guidelines for trans-European energy infrastructure EU 347/2013;
TWA	Temporary Working Area;
TJP	Transition Joint Pit;
WMP	Waste Management Plan;
White Paper	The Department of Energy and Climate Change (now the Department for Business, Energy and Industrial Strategy) 'Planning our electric future: a White Paper for secure, affordable and low-carbon electricity' (July 2011)

Appendix 5- Objections Summary Table