

**THE NATIONAL GRID ELECTRICITY TRANSMISSION PLC (DINORWIG TO
PENTIR CABLE REPLACEMENT PROJECT) COMPULSORY PURCHASE ORDER 2021**

THE ELECTRICITY ACT 1989 AND THE ACQUISITION OF LAND ACT 1981

**STATEMENT OF REASONS OF THE ACQUIRING AUTHORITY FOR THE MAKING OF
A COMPULSORY PURCHASE ORDER FOR THE ACQUISITION OF NEW AND
EXISTING RIGHTS TO FACILITATE THE DINORWIG TO PENTIR CABLE
REPLACEMENT PROJECT**



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STATEMENT OF REASONS OF THE ACQUIRING AUTHORITY FOR MAKING OF THE ORDER

1 INTRODUCTION

- 1.1 National Grid Electricity Transmission PLC (company registration number 02366977) ("**NGET**") has made The National Grid Electricity Transmission PLC (Dinorwig to Pentir Cable Replacement Project) Compulsory Purchase Order 2021 (the "**Order**") pursuant to Section 10 and Schedule 3 of the Electricity Act 1989 (the "**1989 Act**") and the Acquisition of Land Act 1981 (the "**1981 Act**").¹
- 1.2 This Statement of Reasons (the "**Statement**") is a non-statutory statement provided in compliance with Section 12 of the Guidance on Compulsory Purchase Process and the Crichel Down Rules (2019) (the "**Guidance**") and is not intended to constitute the Statement of Case which NGET will be required to prepare in accordance with the Compulsory Purchase (Inquiries Procedure) Rules 2007 in the event of an inquiry into the Order.
- 1.3 NGET owns and operates existing electricity cables connecting to a NGET substation within the hydro-electric power station in Dinorwig Mountain in Snowdonia, North Wales ("**Dinorwig**"). Dinorwig is owned and operated by First Hydro Company. The existing electricity cables run from the substation at Dinorwig to a NGET substation at Pentir and to a Sealing End Compound at Penisa'r Waun where the circuits join the existing NGET overhead powerlines.
- 1.4 The existing oil-filled cables were first installed in the 1980's and are now approaching the end of their operational life and need to be replaced to ensure the stability and reliability of the electricity transmission network in the local area and beyond (the "**Project**").
- 1.5 Dinorwig is a key electricity supplier for the electricity network in Wales and England which provides fast-response electricity generation at periods of peak consumption. This allows National Grid Electricity System Operator ("**NGESO**") to balance the national electricity network and ensure a reliable supply to homes and businesses. As such NGET needs to update the existing aged-cables to ensure a reliable link between power generation and transmission onto the network.
- 1.6 Due to the importance of the current electricity supply from Dinorwig, NGET will need to ensure connection to the transmission network is maintained throughout by the two existing circuits while the new electric cables are installed and as such NGET has designed the Project to provide for this by designing new cable routes between Dinorwig, Pentir and Penisa'r Waun. NGET will replace the two existing circuits with three new circuits as part of an efficient, economic and co-ordinated solution, providing value for stakeholders and to ensure the new circuits accommodate the operational needs of the electricity network. NGET's proposals to replace the two existing circuits with three new circuits would deliver a compliant solution in accordance with the National Electricity Transmission System Security and Quality

¹ On 1 April 2019, the Electricity System Operator became a legally separate company within the National Grid Group. NGET remains the transmission owner and operator and is responsible for the delivery of Project.

Supply Standard ("**SQSS**") and in turn delivers quantified whole life cost benefit to consumers and all stakeholders.

- 1.7 Once two of the three new circuits have been installed and commissioned along the new routes, it will be possible for NGET to install the final third circuit along part of the same route as the existing cables. The existing cable circuits and associated apparatus will be decommissioned once the new circuits are in operation. A description of the Project is set out at Section 2 (*The Project*) of this Statement of Reasons.
- 1.8 This Statement sets out NGET's justification for promoting the Order and explains why, in NGET's opinion, there is a compelling case in the public interest for compulsory purchase powers to be confirmed.
- 1.9 If confirmed by the Secretary of State for Business, Energy and Industrial Strategy (the "**Secretary of State**"), the Order will enable NGET to acquire compulsorily the rights included in the Order (the "**Order Rights**") which are required in order to construct and operate the Project.
- 1.10 NGET's approach to the Order is to seek Order Rights only for those parts of the Project that are in land not within or beneath the public highway. NGET will rely on its statutory street works powers pursuant to the Electricity Act 1989, Schedule 4, and the New Roads and Street Works Act 1991 ("**NRSA**") for those parts within or beneath the highway. This has the advantage of reducing the number of interests that are included in the Order, and supports delivery against the urgent need for the Project.
- 1.11 This Statement is made having regard to all applicable non-statutory guidance relating to the promotion of compulsory purchase orders in Wales where the Order is to be confirmed by the Secretary of State (rather than the Welsh Ministers).

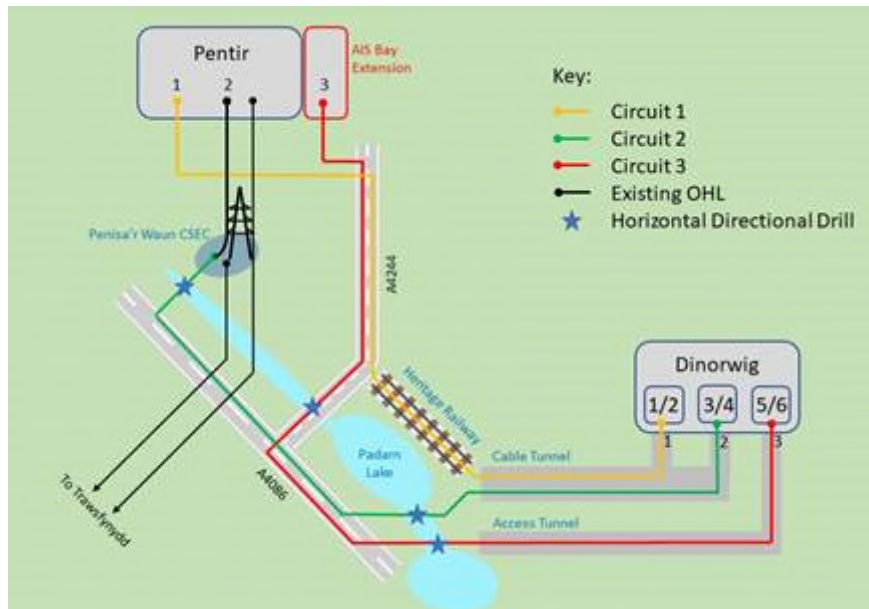
2 **THE PROJECT**

2.1 **Location of the Project**

- 2.1.1 The Project is based entirely within the administrative boundary of Gwynedd County Council (the "**Council**") and extends from National Grid's existing Pentir substation near Bangor following the route of the A4244 to Brynrefail, along the A4086 to Llanberis and then across Padarn Country Park into the existing Dinorwig tunnels. Two of the three circuits will run to the south of Llyn Padarn (lake) and one will run to the north along the existing cable routes. NGET is referring to these as Circuit 1, Circuit 2 and Circuit 3 and the routes of these are as follows:

- (a) **Circuit 1** - Pentir Substation to Dinorwig via a partially agricultural route to the south west of Pentir then south along the A4244 to the north of Afon Rhythallt. Then turning east in Brynrefail along the north of Llyn Padarn along an existing cable route that follows the length of Llanberis Lake Railway to Dinorwig.
- (b) **Circuit 2** - Penisa'r Waun sealing end compound ("**SEC**") then south under Afon Rhythallt across agricultural land then along the A4086 to the south of Llyn Padarn. The majority of this route is within the road or road verge and footway of the A4086. This route will connect to the Dinorwig power station by crossing under the Afon y Bala from Padarn Country Park to the National Slate Museum and into the existing tunnel portal at Dinorwig.

- (c) **Circuit 3** - Pentir Substation to Dinorwig via a partially agricultural route to the south west of Pentir then south along the A4244 to the north of Afon Rhythallt. The cables will then pass south under the Afon Rhythallt in agricultural land and emerge into the A4086 alongside Circuit 2. The majority of this route is within the road or road verge and footway of the A4086 and A4244. It follows the A4086 into Llanberis alongside Circuit 2 crossing under the Afon y Bala from Padarn Country Park to the private access road alongside Llyn Peris and into Dinorwig via the main access tunnel portal.



2.1.2 The Project comes within the western extent of the Padarn Country Park, with all cable circuits running either side of Llyn Padarn prior to connecting into the existing Dinorwig substation. At its closest point, the Scheme would be located approximately 500m from the Snowdonia National Park. The proposed Scheme will also pass through part of the Dinorwig Slate Quarry Mountain Landscape, a newly confirmed World Heritage Site.

2.2 Description of the Project

2.2.1 NGET is proposing to replace the two existing 400kV oil-filled water-cooled underground cable circuits (approximately 12 km) between Dinorwig and the existing NGET Pentir substation and Penisa'r Waun SEC, with a three-circuit cross-linked polyethylene (XLPE) cable solution.

2.2.2 The overall length of the three Circuits is approximately 29,920 metres. The approximate individual lengths are as follows:

- (a) Circuit 1 – 10,910 metres;
- (b) Circuit 2 – 6,956 metres; and
- (c) Circuit 3 – 12,054 metres.

2.2.3 The works in third party land are currently anticipated to start in spring 2023 with some early construction work due to commence in the adopted highways from autumn 2021 to accommodate the Council's roadwork embargo periods. The first two circuits are due to be commissioned in 2024 and 2025, allowing for the existing

cables along the lake side railway to then be decommissioned and replaced with the third circuit, which is due to be commissioned in 2026.

- 2.2.4 NGET intends to install the cable circuits using a ducted cut and cover methodology, with sections of directional drilling for the river crossings at Padarn Country Park/Slate Museum, A4244 and Cwm y Glo/Penisa'r Waun sealing end.
- 2.2.5 The majority of the proposed construction works would be within the public highway, but sections of the cable routes would cross third party land and Padarn Country Park to connect into existing fixed connection points on the network (being the existing substations and SEC). The construction works will be perceptible to the public but once the cable circuits have been installed and are operational the intrusion upon the public and effects on private landowners will be minimal. Future operational maintenance access will be primarily focused on the joint bay locations for inspection and maintenance.
- 2.2.6 The Project will involve works within NGET's land at Pentir and its substation within Dinorwig and these are set out in detail below. These works are required to update the existing substations to facilitate the new cables and the additional third circuit. The new cables will enter Dinorwig through the existing tunnel networks within the mountain, including the existing cable tunnel and the access tunnel used for vehicular access to Dinorwig.
- 2.2.7 The Project also involves the installation of a shunt reactor and additional surge arrestors. These works are subject to detailed design but they will be installed within the existing NGET substations at either Pentir or Wylfa.

2.3 **Above Ground Works/Sites**

- 2.3.1 NGET is undertaking above ground works at existing operational sites to facilitate the new cables. These works are as follows:
- (a) **Pentir** – extensions will be made to the existing NGET substation which will include the construction of a new equipment bay to allow for the new circuit to connect to the network. All permanent works at the Pentir substation will be undertaken on land already owned by NGET.
 - (b) **Penisa'r Waun** – works at the existing NGET SEC include the reconfiguration of equipment to facilitate the Project.
 - (c) **Dinorwig** – First Hydro Company own and operate the pumped storage power station and NGET has a lease for its substation within the mountain to connect to the transmission network. NGET will undertake extensions to its substation which will include the construction of a new equipment bay for the new circuit. NGET will also replace old Gas Insulated Switchgear ("**GIS**") to facilitate the new cables.
- 2.3.2 Temporary compounds for the construction of the Project are required at the following locations:
- (a) **Pentir** – a temporary construction compound is required on land adjacent to the substation to facilitate the cabling and substation extension works. The temporary compound will contain site offices, welfare facilities and laydown areas and is currently expected to be in operation for approximately 6 years.

- (b) **National Slate Museum car park** – a similar temporary construction compound is required here for around two years primarily for the storage of cables, materials and the heritage rail equipment.

2.3.3 The horizontal directional drilling works (set out in more detail at Section 2.5 (*Horizontal Directional Drilling Works*) below) will each require two above ground sites: a drive pit and a receptor pit. Each pit will be approximately 1750 metres squared and will contain all of the equipment required to facilitate these works. A description of the works and the locations are set out in more detail below.

2.4 **Trenching Cabling Works**

2.4.1 The majority of the new electric cables will be constructed using an open trench installation method known as “cut and cover”. In simple terms a trench is dug and the electric cables and associated equipment to house the cables are installed in the trench. The trench is then backfilled and the ground surface is restored. In detail the cut and cover works are as follows:

- (a) **Single Circuits** (i.e. 3 HV cables, 1 communication fibre and 1 monitoring fibre) - trenches will be excavated at a depth of approximately 1.5 metres deep and 1.3 metres in width (dependant on current services in the area) in no more than 30 metre sections at a time to lay containment. Containment involves digging the trenches, laying the ducts for the cables and then installing associated materials to stabilise and protect those ducts. The trenches are then backfilled before moving to the next section. The cables are then pulled through the installed ducts.
- (b) **Double Circuits** (i.e. 6 HV cables, 2 communication fibres and 2 monitoring fibres) - trenches will be excavated at a depth of approximately 1.5 metres deep and 1.8 metres in width (dependant on current services in the area) in no more than 30 metre sections at a time to lay containment.
- (c) **Joint bays** – joint bays are required to join sections of cabling together. Joint bays will be installed in a similar way to the electric cables with the area excavated to a depth of approximately 2.5 metres deep and 3.5 metres in width. These will be used to pull the new cable through the containment and join the sections together.
- (d) **Link boxes** - each joint bay will require a link box to maintain and monitor the circuit within a 10 metre distance to the joint where it is most accessible. Previous similar link boxes have been 850mm height 350mm width 300mm depth but exact sizes will be determined once detailed design is finalised and a supplier has been appointed. The link boxes will be installed on a concrete pad above ground.

2.4.2 The routes for the cables and the selection process for those routes are set out in detail below taking into account all appropriate factors, including engineering, economic and environmental considerations. The route of the cables has therefore been selected, as far as possible, to lie within the public highway. NGET will use its statutory street works powers (contained in Schedule 4 of the 1989 Act and in NRSWA) to carry out the necessary cabling works (and thereafter to operate and maintain) in land which lies under the surface of the public highway.

2.4.3 The Order therefore excludes those areas where NGET is installing cables beneath or within the highway. This is consistent with the way NGET has exercised its street works powers in relation to its London Power Tunnels 2 project and allows NGET to limit the impact of the Order on private rights.

2.5 **Horizontal Directional Drilling Works**

2.5.1 At several points on the cabling routes NGET will use the Horizontal Directional Drilling (“**HDD**”) construction technique to construct and install the electric cables underneath major watercourses. HDD allows the installation of cables under rivers that are too deep, wide or fast flowing to temporarily divert the watercourse in order to excavate the beds for laying containment. The only other alternative would be to install a permanent cable-bridge. HDD also ensures there is minimal impact on the surface to avoid impact on these obstacles.

2.5.2 The HDD machine will drill a hole from a drive pit which drills under the obstacle and is then received at a receptor pit. The pipes to house the cables are then pulled through the drilled holes and they will then be connected to the other cable containment.

2.5.3 Although the exact HDD locations and the depths and spacing of the cables is still to be finalised the main areas are as follows:

- (a) **HDD 1** - the drive pit will be situated on grassland in Padarn Country Park to the south of Afon y Bala, the watercourse between Llyn Padarn and Llyn Peris, and will drill under this watercourse to a receptor pit at the north of the watercourse and situated to the west of the National Slate Museum;
- (b) **HDD 2** – this runs across Afon y Bala but is located further to the south. The drive pit will be located on grassland to the north of Dolbadarn car park with the receptor pit on the private road from the mini roundabout at the end of Lyn Peris leading to the Slate Museum.
- (c) **HDD 3** – this HDD section is located to the south of the Penisa’r Waun SEC. The drive pit will be situated on agricultural land to the south of Afon Rhythallt and will drill under the river and road to a receptor pit directly to the west of the SEC.
- (d) **HDD 4** – The drive site for this section is situated on agricultural land to the north-east of the intersection between the A4244 and the A4086. The HDD will drill under a road and Afon Rhythallt to a receptor site on agricultural land to the north of the river.

2.6 **Decommissioning and/or Removal of existing cables**

2.6.1 As part of the Project, NGET will decommission and/or remove the existing oil filled cables which will be made redundant following the new cabling works.

2.6.2 NGET will decommission and remove cables in the following areas:

- (a) **Circuits 1 and 2 between Dinorwig GIS Terminations and Point X building at Brynrefail** – NGET will remove the cable and associated assets including all joint bays (but not the concrete housing), cooling systems, communications equipment, low voltage cables and any above ground assets. NGET will also remove all equipment in the three NGET buildings along the route. NGET does not require any new rights in the three NGET buildings, however, for completeness the areas have been left within the Project’s red line boundary.

2.6.3 NGET will decommission the cables in the following areas but the cables will not be removed:

- (a) **Circuit 2 between Brynrefail and Penisa'r Waun** – NGET will purge the cables to remove the existing oil in the cables, remove above and below ground assets including link boxes, joint bays, cable bridges and other assets to make the ground safe. Drainage pits will then be installed. Following the decommissioning works, the ground surface will be restored with manholes to provide periodic future access.
- (b) **Circuit 1 between Brynrefail and Pentir Substation** – NGET will purge the cables but will only remove cables in the Pentir Substation to allow for the new circuits. Above and below ground assets will be removed to make the ground safe. Drainage pits will then be installed. Following the decommissioning works the ground surface will then be restored with manholes to provide periodic future access. Redundant joint bay structures will not be removed in these areas. NGET will remove all equipment in the two NGET buildings along the route. NGET does not require any new rights in the two NGET buildings, however, for completeness the areas have been left within the Project's red line boundary.

3 **NEED**

3.1 **Introduction**

- 3.1.1 NGET owns and maintains the high-voltage electricity transmission network in England and Wales. The network carries electricity from the generators to substations, where the voltage is lowered ready for distribution to homes and businesses. It is NGET's statutory duty to ensure that there is sufficient electricity transmission infrastructure available to support future energy demand in Wales and England.
- 3.1.2 In accordance with Schedule 9 of the 1989 Act, in formulating the proposals for the installation below ground of an electric line, or the execution of any other works for or in connection with the transmission of electricity, NGET must have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest.
- 3.1.3 The following sub-paragraphs in this Section 3 (*Need*) set out the framework within which the Project exists, and the need for the Project.

3.2 **Need**

- 3.2.1 As set out above, Dinorwig provides a key role in power generation and balancing the electricity network in periods of peak demand. Dinorwig can generate over 1600 megawatts of power and has an important role in providing fast frequency response to the electricity network. Dinorwig also has "Black Start" capability meaning it can re-start sections of the electricity network if there is a complete or partial system shut down.
- 3.2.2 The age of the existing cables has led to increased costs for repair and maintenance. Furthermore, in the last ten years the circuits have been out of service for a total of 1,748 days. As the cables continue to age, the frequency of faults, and therefore outages, is projected to increase.
- 3.2.3 National Grid's recent asset health score modelling has concluded that the cables are in category 1 in the RIIO T2 regulatory period meaning they are considered to be at the highest risk of fault and this provides the underpinning need to replace both circuits. Ofgem recognise the need to deal with the asset health condition of the

cables and it has sanctioned initial funding as described in detail in paragraph 9.2 below.

- 3.2.4 This assessment has led NGET to design and develop the Project to deliver the best value for stakeholders and replace the connection to Dinorwig and requires the making of the Order.
- 3.2.5 The requirement to keep Dinorwig connected to the network means that NGET cannot utilise the exact route of existing cables for the new cables; otherwise there would be a need for longer than permitted periods without Dinorwig being functional and available for NGESO. In some areas NGET will follow the same broad cable routes, as the Project entails three circuits to replace the existing two. Maximum uptime for Dinorwig is required by First Hydro Company and to meet NGESO operational needs.
- 3.2.6 Due to the age of the existing cables, their continuing use increases the risk of environmental harm caused by oil leakage from corroded cables. Decommissioning is therefore required in some areas to remove the oil. Decommissioning will be in line with NGET's approved practice which is typically the full extraction of oil, sealing the cables and laying containment. In some areas cables will be removed completely.
- 3.2.7 NGET's proposals to replace the two existing circuits with three new circuits would deliver an SQSS compliant solution and in turn deliver quantified whole life cost benefit to consumers and all stakeholders.

4 **ENABLING POWER**

- 4.1 NGET is a holder of an electricity transmission licence granted or treated as granted under section 6(1) (b) of the 1989 Act. NGET owns the high voltage electricity transmission network in England and Wales and operates the transmission system across Great Britain.
- 4.2 By section 9(2) of the 1989 Act, the holder of a licence authorising him to participate in the transmission of electricity is charged with the duty "*to develop and maintain an efficient, co-ordinated and economical system of electricity transmission*".
- 4.3 Section 10 and Schedule 3 of the 1989 Act empower NGET "*to purchase compulsorily any land [including rights in land] required for any purpose connected with the carrying on of the activities which [NGET] is authorised by [its] licence to carry on.*"
- 4.4 Schedule 4 of the 1989 Act and NRSWA enable NGET to use street works powers for those parts of the Project in and beneath the "street", hence not all of the cable route is the subject of this Order.

5 **LAND & RIGHTS REQUIRED**

5.1 **Land Referencing**

- 5.1.1 Land referencing for the Project commenced in 2019 with desktop studies undertaken to establish Land Registry title information together with known information about landowners and occupiers in the area.
- 5.1.2 This was followed in 2020 and 2021 by comprehensive referencing for the purposes of arranging survey access, seeking voluntary rights in land across the Project area, and for the purpose of producing the Maps and Schedule to the Order. This included the issuing of questionnaires to landowners and occupiers to confirm their interest and request further information about the nature of their ownership and occupation.

5.1.3 Given the restrictions in place in association with the COVID-19 pandemic, additional steps were taken including giving landowners and occupiers a greater length of time to respond, issuing reminder letters, and utilising further virtual investigations and increased desktop referencing to contact people with land interests who had not responded to LIQs and to identify people with interests in unknown parcels.

5.1.4 Once safe and permitted to do so and in line with social distancing restrictions in place, on site referencing activities were undertaken in 2021. This included contact site visits, site observations and the erection of notices in respect of unregistered land and investigations into the same. Therefore, NGET considers that it has met the test of diligent inquiry.

5.2 Acquisition of Rights

5.2.1 The rights to be purchased compulsorily over the land under this Order are described in Table 1 of the Order Schedule in accordance with the definitions set out in paragraph 5.2.4 below. The land over which the rights are to be purchased compulsorily is shown coloured blue on the Order Map.

5.2.2 The land shown edged red with no colour wash and to which no plot number has been assigned is comprised within the Project but does not form part of this Order. These areas are as follows:

- (a) Areas of highway where NGET is proposing to lay cables are not included as plots as NGET has existing rights under NRSWA to install the cables and electricity infrastructure;
- (b) Land in NGET’s ownership or control (which includes Pentir Substation, Penisa’r Waun SEC and other NGET operational buildings linked to the existing oil-filled cables) or where NGET has the necessary rights from existing easements and/or licences and no new rights are required; and
- (c) Land within plot 5-19 which comprises of woodland which NGET will not install cables under – hence it is excluded from the scope of the Order and the Order land is commensurately wider in that area.

5.2.3 Further, at Dinorwig the red line boundary ends at the entrance to the cable tunnels that run into Dinorwig. This is to ensure that the exact location of the tunnels and substation within the mountain remain confidential. As explained above, there will be certain works within Dinorwig to lay the new cables in the existing tunnels and to ensure the new circuits can connect into the NGET substation.

5.2.4 The Rights to be acquired are defined in the table below:

Defined Term	Description of Right
Cable Rights	<p>All rights necessary for the purposes of or incidental to the construction, installation, and operation of electricity cables and the associated electricity infrastructure together with any necessary auxiliary apparatus as required (hereinafter referred to as the “Electric Cables”), including:</p> <p>the right to excavate, construct and install the Electric Cables in, on, under or over the land, including using trenchless techniques such as horizontal directional drilling;</p>

Defined Term	Description of Right
	<p>the right to decommission and/or remove existing electric cables, associated electricity infrastructure, electrical plant, structures and apparatus from that land;</p> <p>the right to acquire any rights of profit a prendre which conflict with the operation of the cable rights, so as to suspend their operation during the exercise of the Cable Rights, to enable their execution without conflict with rights of profit a prendre but not otherwise;</p> <p>the right to carry out ground strengthening and stabilisation works;</p> <p>the right to access the land for the purposes of or incidental to surveying, constructing, installing, commissioning, operating, inspecting, maintaining, repairing, altering, renewing, replacing, removing or decommissioning the Electric Cables with or without vehicles, plant, machinery, apparatus, equipment, materials and personnel;</p> <p>the right to test and commission the Electric Cables and to remedy initial faults and defects in them at any time prior to the date on which it is energised and ready for commercial operation;</p> <p>the right to retain, commission, operate, inspect, maintain, repair, alter, renew, replace, reinstate, make safe and remove or decommission the Electric Cables;</p> <p>the right to all necessary rights of support for the Electric Cables and to prevent any works on or use of the land which may interfere with or damage or cause injury to the Electric Cables or which interferes with or obstructs access to the Electric Cables;</p> <p>the right with or without vehicles, plant and equipment to carry out mitigation planting and monitoring;</p> <p>the right 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);</p> <p>the right to carry out archaeological, environmental and/or ecological mitigation and/or works;</p> <p>the right with or without vehicles plant and equipment to enter land to access any adjoining land in connection with NGET's undertaking;</p> <p>the right to bring onto the land, position and swing the jib of a crane loaded or unloaded through the airspace above the</p>

Defined Term	Description of Right
	<p>land for the purposes of constructing, installing and removing machinery and equipment;</p> <p>the right to construct, lay down, use and remove temporary access roads including any necessary temporary bridging, culverting or diversion of water courses and drains;</p> <p>the right to facilitate a footpath diversion;</p> <p>the right to erect and remove fencing, gates, hoardings, signage or other infrastructure;</p> <p>the right to install, use and remove security apparatus including cameras, audible warning systems any other necessary security apparatus;</p> <p>the right to erect and remove temporary lighting, temporary welfare structures and generators;</p> <p>the right to install and remove protection measures for third party structures / assets, including scaffolding;</p> <p>the right to divert and remove services and utilities;</p> <p>the right to install, use and remove artificial lighting;</p> <p>the right to carry out de-watering and drainage works and install, alter, reinstate or remove land drainage systems and to discharge water into existing drains and watercourses;</p> <p>the right with or without vehicles plant and equipment to fell, trim or lop all trees, bushes and vegetation and remove or alter walls, fences or any other structures or erections on the land which obstruct or interfere with the exercise of the rights granted; and</p> <p>the right to reinstate the land and to monitor reinstatement works.</p> <p>The 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 Electric Cables shall be installed, retained and operated shall not exceed:</p> <ol style="list-style-type: none"> 1. 30 metres in width where trenchless installation techniques, such as horizontal directional drilling, are used for a single circuit; 2. 60 metres in width where trenchless installation techniques, such as horizontal directional drilling, are used for double circuits; or

Defined Term	Description of Right
	<p>3. 15 metres in width in all other cases;</p> <p>PROVIDED FURTHER THAT the width restrictions at paragraphs 1, 2 and 3 above shall not apply to the acquisition of any other rights described 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.</p>
<p>Construction and Operational Access Rights</p>	<p>All rights necessary to:</p> <p>access the land and adjoining Order land for the purposes of or incidental to the preparation, construction, installation and commissioning of the Electric Cables, decommissioning or removal of existing electric cables and associated electricity infrastructure, electrical plant, structures and apparatus from that land and for the purposes of operating, inspecting, maintaining, repairing, altering, renewing, replacing, removing or decommissioning the Electric Cables, 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;</p> <p>carry out works to facilitate such access including to construct, lay down, use and remove access roads including any necessary temporary lighting, temporary welfare structures, generators, temporary traffic signage and associated traffic management, temporary bridging, culverting or diversion of watercourses and drains, erecting fencing and gates, carrying out security operations, carrying out earth works, removing structures or apparatus, modifying road verges, junctions and bellmouths and installing, using, altering, diverting, and removing services and utilities; and</p> <p>with or without vehicles plant and equipment to fell, trim or lop all trees, bushes and vegetation and remove or alter walls, fences or any other structures or erections on the land which obstruct or interfere with the exercise of the rights granted.</p>
<p>Decommissioning Access Rights</p>	<p>All rights necessary to:</p> <p>access the land and adjoining Order land for the purposes of or incidental to the decommissioning or removal of existing electric cables and associated electricity infrastructure, 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;</p> <p>carry out works to facilitate such access including to construct, lay down, use and remove access roads including any necessary temporary lighting, temporary welfare structures, generators, temporary traffic signage and associated traffic management, temporary bridging, culverting or diversion of</p>

Defined Term	Description of Right
	<p>watercourses and drains, erecting fencing and gates, carrying out security operations, carrying out earth works, removing structures or apparatus, modifying road verges, junctions and bellmouths and installing, using, altering, diverting, and removing services and utilities; and</p> <p>with or without vehicles plant and equipment to fell, trim or lop all trees, bushes and vegetation and remove or alter walls, fences or any other structures or erections on the land which obstruct or interfere with the exercise of the rights granted.</p>
Construction and Compound Rights	<p>All rights necessary for the purposes of or incidental to the construction, installation and commissioning of the Electric Cables and the decommissioning or removal of existing electric cables, associated electricity infrastructure, electrical plant, structures and apparatus including:</p> <p>the right to access the land and adjoining Order land for the purposes of constructing, placing and installing the Electric Cables, carrying out de-watering and drainage works and installing, altering or reinstating land drainage systems and commissioning the Electric Cables with or without vehicles, plant, machinery, apparatus, equipment, materials and personnel;</p> <p>the right to 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 watercourses and drains, erecting fencing and gates, carrying out security operations, carrying out earth works, removing buildings or structures or apparatus, modifying road verges and junctions and installing, using, altering, diverting, protecting, and removing services and utilities;</p> <p>the right to erect, construct, use and remove a works compound which may include portable cabins and offices, and welfare facilities including portable toilets and electricity generators and the right to undertake ground strengthening or stabilisation works and to remove topsoil, adjust the height of the land and lay temporary surfaces to facilitate the exercise of those rights;</p> <p>the right to bring onto the land, position and swing the jib of a crane loaded or unloaded through the airspace above the land for the purposes of constructing, installing and removing machinery and equipment;</p> <p>the right to facilitate the horizontal directional drilling works where necessary with or without vehicles, plant, machinery, apparatus, equipment, materials and personnel;</p> <p>the right to store, stockpile and, where necessary, use, manage and process plant, machinery, apparatus, materials (including excavated material) and/or equipment;</p>

Defined Term	Description of Right
	<p>the right to erect and remove fencing, gates, hoardings, signage or other infrastructure to secure the compound;</p> <p>the right to install, use and remove security apparatus including cameras, audible warning systems any other necessary security apparatus;</p> <p>the right to carry out de-watering and drainage works and install, alter or reinstate land drainage systems;</p> <p>the right to erect, use and remove septic tanks, soakaways and associated infrastructure and the right to treat effluent from site cabins and to discharge effluent into a soakaway;</p> <p>the right to discharge water into existing drains and watercourses;</p> <p>the right to install, use and remove artificial lighting;</p> <p>the right to install, use, alter, divert and remove services and utilities;</p> <p>the right to facilitate a footpath diversion;</p> <p>the right to install, use, alter and remove temporary traffic signage and associated equipment to manage construction traffic;</p> <p>the right 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);</p> <p>the right to carry out archaeological, environmental and/or ecological mitigation and/or works;</p> <p>the right with or without vehicles plant and equipment to fell, trim or lop all trees, bushes and vegetation and remove, or alter walls, fences or any other structures or erections on the land which obstruct or interfere with the exercise of the rights granted;</p> <p>the right to reinstate the land and to monitor reinstatement works; and</p> <p>the right of support and protection for the compound.</p>
Drainage Rights	<p>All rights necessary to carry out de-watering and drainage works and install, retain, inspect, maintain, alter, reinstate or remove land drainage systems in, on or over the land, including the right to access the land with or without vehicles, plant, machinery, apparatus, equipment, materials and personnel and the right to cut vegetation and remove</p>

Defined Term	Description of Right
	obstacles which obstruct or interfere with the exercise of those rights.

Cable Rights

- 5.2.5 As explained in Section 2 (*The Project*), NGET will be carrying out cabling works using both trenching and trenchless techniques for constructing and installing the new electric cables. The Cable Rights provide NGET with the option to carry out both types, however, HDD will only be used to avoid watercourses as set out above. As NGET will need access and the ability to undertake works in a wider area on the surface of the land the rights are structured to allow the facilitating works to be undertaken in a wider area, with the area for the cables to be situated in a narrower 'rights corridor' which will depend on what method of installation is used. As well as the cables themselves, there will also be necessary ancillary works, such as joint bays (where cables are more spaced apart, to allow jointing activities and installation of link pillars).
- 5.2.6 Where a single circuit of cables will be installed by HDD the rights corridor will be set at 30 metres in width; double circuits of cables installed by HDD require 60 metres in width and for all other cables the rights corridor is limited to 15 metres. These rights corridors are not set out in detail as NGET require flexibility to allow it to install the cables in the most suitable areas within the rights area.

New and existing rights

- 5.2.7 With one exception, the rights sought in the Order are new rights. There is one existing right by way of a freehold profit a prendre which is included within the rights sought pursuant to the Order, to remove conflict with the new rights sought. No other existing rights are expressly acquired albeit this is without prejudice to the operation of the overriding provisions found in Section 203 of the Housing and Planning Act 2016.

5.3 **Mining Code**

- 5.3.1 The mines and mineral rights are excluded from the Order.
- 5.3.2 However, Parts 2 and 3 of Schedule 2 to the 1981 Act, which concern the 'Mining Code', are expressly incorporated within the Order in order to safeguard and protect all apparatus and other equipment which will be constructed and/or installed by NGET and its contractors for the purposes of the Project.

6 **ACQUISITION STRATEGY & PROGRESS TO DATE**

6.1 **NGET's Acquisition Strategy**

- 6.1.1 NGET's preference will always be to secure land and rights over land on a voluntary basis. This will be through negotiation with individual landowners to obtain agreements including option agreements for the grant of an easement for cables, a lease or licence for temporary compounds and temporary construction works, and variations to existing cable easements for decommissioning works. To help to facilitate this, National Grid's Land Rights Strategy ("**LRS**") has been used.
- 6.1.2 The LRS was developed by National Grid in order to provide a consistent methodology for acquiring land rights for National Grid's infrastructure projects, both for Compulsory Purchase Order schemes and also Development Consent Orders. The

LRS has been implemented on all National Grid projects requiring land and rights acquisition, and remains under continuous review to ensure that it is still fit for commercial purpose, and meets the expectations of third party landowners and occupiers. National Grid was one of the first utility companies to formally adopt and promote this approach and it accords with the Guidance on Compulsory Purchase and Crichton Down Rules.

- 6.1.3 All reviews of the LRS undertaken to date by National Grid have identified that the LRS still enables effective and consistent communication with those most affected by National Grid's proposals, and that it continues to meet the requirements of CPO guidance on seeking to acquire land by negotiation. Its terms continue to enable National Grid to treat people fairly.
- 6.1.4 A system of payments for rights for the Project was adopted using the principles of the LRS to ensure consistency and fairness in submitting reasonable offers for the required rights across the Project area.
- 6.1.5 Prior to issuing Heads of Terms, a letter and individual plan was issued to affected landowners identified at the time in April 2021 to provide an update on the Project and show the Project proposals across their land.
- 6.1.6 The majority of the heads of terms ("**HoTs**") were issued in June 2021 and negotiated on the basis that NGET would be granted an option agreement to be able to exercise rights and create easements or vary existing easements as appropriate. Upon agreement of these principal terms, these are then translated into legal agreements.
- 6.1.7 NGET has easements with landowners for the existing cable routes. Where appropriate, NGET will be utilising these existing rights to carry out cable replacement and decommissioning works. However, in some instances the existing easements need to be amended, for example to allow for the installation of manholes and associated drainage pits as part of the cable decommissioning works. In such instances, National Grid are seeking agreements to vary these existing easements.
- 6.1.8 Whilst NGET seeks to avoid the use of compulsory purchase powers by negotiating by private treaty, in order to ensure the timely delivery of the Project, it is now necessary to seek compulsory purchase powers. Negotiations to obtain, by agreement, the remainder of the necessary rights will continue in parallel to the compulsory purchase process.
- 6.1.9 Given that the Project comprises in large part a linear cabling scheme, the Project will inevitably cross existing assets held by statutory undertakers, including transport and highway authorities, in respect of which asset protection and crossing agreements may be required. Further detail on NGET's engagement with these authorities is provided at Paragraph 8.2 (*Local Authorities & Statutory Undertakers*) of this Statement.

6.2 **Progress**

- 6.2.1 As indicated above, NGET has been seeking to secure all necessary rights, and as at the date of this Statement, the following progress has been made:
 - (a) 11 out of 17 heads of terms have been agreed in respect of those rights involving option agreements for easements.
 - (b) Of those 6 heads of terms which remain, 5 of the negotiations are continuing positively. We have so far been unable to contact one of the interests.

- (c) Positive negotiations are continuing with the 5 statutory undertakers with identified assets within the project boundary in respect of any appropriate arrangements.
 - (d) 9 out of 11 heads of terms have been agreed in respect of those rights involving option agreements to vary existing cable easements.
 - (e) 2 out of 5 heads of terms have been agreed in respect of other rights.
- 6.3 NGET has an existing lease with First Hydro Company at Dinorwig, which covers NGET's substation and cables within the existing tunnels. The proposed works require some amendments to this lease, including provisions for the additional cables for Circuit 3 which will run beneath the access road and within the main access tunnel into the mountain. Discussions are ongoing to formalise the required changes to this lease. First Hydro Company, as the owners and operators of the pumped storage power station to which this project connects, are key stakeholders who have been involved with the development of the Project, especially over the past 2 years as project designs have been developed. Therefore the two companies' commercial aims are in line and this negotiation will not be an impediment to delivery. In addition to the lease amendments, a modification to the Connection Agreement between National Grid and First Hydro Company, and a Construction Agreement, will also be agreed in advance of the works. First Hydro Company confirmed its support for the Project in a letter to Ofgem in September 2020.

- 6.4 NGET have agreed a licence with a landowner to commence works to establish a temporary construction compound on land in close proximity to Pentir Substation. Heads of terms are agreed for a further lease of this land. This compound will be used for site offices and activities such as plant and materials storage to facilitate works across the Project.

7 OTHER CONSENTS

7.1 Permitted Development Rights

- 7.1.1 The majority of the Project is to be consented pursuant to permitted development rights.

- 7.1.2 NGET has permitted development rights under Schedule 2, Part 17, Class G Electricity Undertakings of the Town and Country Planning (General Permitted Development) Order 1995 (the "GPDO") (which continues to apply in Wales). The following elements of the Project are covered by the GPDO and can be constructed under permitted development:

- (a) Construction and installation of the electric cables and extension to the Pentir and Dinorwig substations by virtue of Schedule 2, Part 17, Class G (a) and (f) of the GPDO;
- (b) Temporary construction sites by virtue of Schedule 2, Part 4, Class A of the GPDO; and
- (c) Access points that are either not on a trunk road or a classified road fall under Schedule 2, Part 2, Class B, Paragraph B of the GPDO.

- 7.1.3 NGET will make use of permitted development rights for:

- (a) Installation of three new 400kV underground cable circuits.

- (b) Installation of above ground link pillars (kiosks) at joint bays along new cable circuits.
- (c) Installation of a new outdoor Air Insulated Switchgear (AIS) feeder bay at Pentir Substation including new fencing, site lighting and new surface water drainage for the extension of the substation.
- (d) Installation of a new indoor Gas Insulated Switchgear (GIS) feeder bay at Dinorwig.
- (e) Installation of temporary construction compounds, temporary covered storage and laydown facilities, temporary fencing, temporary site access (bellmouths and haul roads), and construction working areas and third party works that are required to construct the infrastructure listed above.
- (f) Decommissioning and/or removal of sections of the existing 400kV underground cables and together with associated above ground elements (link pillars and kiosks).

7.1.4 NGET is the freehold owner of land at Pentir Substation and has a long lease of land at Dinorwig and both sites are classed as operational land. NGET is a statutory undertaker as defined in Section 263 of the Town and Country Planning Act 1990 (the "**1990 Act**"). Both Pentir and Dinorwig substations are on land owned/leased and used by NGET for the purpose of its undertaking. Work within the boundary of Pentir and Dinorwig substations will not involve the construction of a building and works will not exceed 15m in height and can therefore be undertaken pursuant to permitted development rights.

7.1.5 In respect of those elements of the Project that are to be consented pursuant to permitted development rights, it is necessary for the relevant local planning authority to confirm through the environmental impact assessment ("**EIA**") screening process that the development is not "EIA development" and NGET has obtained confirmation from the Council to that effect.

7.1.6 A letter requesting an EIA screening opinion was submitted to the Council on 20th August 2020. The Council responded in a letter dated 11th September 2020 (Ref: C20/0670/18/SC) confirming that the Project did not require an EIA.

7.1.7 Subsequently the appointed cable design contractor further developed the detailed design of the Project. They have concluded that a route for two cable circuits within the A4244 was feasible rather than a cross country cable installation between Pentir and Penisa'r Waun as originally proposed. This revised design was developed due to its reduced cost, constructability and reduced environmental impact in accordance with National Grid's Options Appraisal guiding principles. A letter seeking an updated screening opinion was therefore submitted to the Council on 23rd April 2021. The Council responded in a letter dated 4th June 2021 (Ref: C21/0414/18/SC) confirming that the revised project design did not require an EIA. Therefore, permitted development rights are available to NGET in these circumstances.

7.2 **Planning Permissions**

7.2.1 In relation to the provision of temporary bellmouths for accesses from classified roads, applications for planning permission will be submitted in due course to the Council. These applications are unlikely to present an impediment to the delivery of the Project.

7.3 **Decommissioning and/or Removal of Existing Underground Cables**

- 7.3.1 Where existing infrastructure is proposed to be decommissioned and/or removed pursuant to the Project, NGET has decided to seek powers of compulsory purchase within the Order to ensure that the existing underground cables and associated equipment can be efficiently decommissioned and/or removed. However, NGET will, where practicable, draw upon the rights and permissions detailed in existing easements and wayleaves covering land parcels identified for the removal works.
- 7.3.2 Where any decommissioning or removal of existing electric cables, above ground structures and other equipment is proposed NGET will not require planning permission for such works as these works do not constitute development under Section 55 (2) (C) of the 1990 Act as NGET is a statutory undertaker. The Council has agreed that these works do not constitute development.

7.4 **Other Consents**

Highways Orders

- 7.4.1 The Project will require a small number of highway orders, in the form of temporary Traffic Regulation Orders and Temporary Public Rights of Way Closures, along with certain other conventional highways consents which the contractor may from time to time seek to obtain from the relevant highways authority.
- 7.4.2 These highways orders will be required where temporary road closures are required to install new underground cables and remove old cables from beneath the road carriageway. NGET's rights to install cables in the highway are pursuant to Schedule 4, Part 1, of the 1989 Act and NRSWA. The programme for those works is still being developed and the orders are not proposed to be sought by NGET until nearer the commencement date(s) of the relevant works.
- 7.4.3 In any event, the highways orders and other consents are standard consents, and are unlikely to present an impediment to the delivery of the Project. NGET has already discussed road closures with the Council and the Council have given their verbal agreement to such closures in line with Project requirements.

SSSI Assent

- 7.4.4 As the Project is likely to affect Sites of Special Scientific Interest ("**SSSI**"), the assent of Natural Resources Wales ("**NRW**") must first be obtained under section 28H of the Wildlife and Countryside Act 1981.
- 7.4.5 Sections of the cable routes fall within the Llyn Padarn SSSI and Coed Dinorwig SSSI. It is considered that the effects can be suitably mitigated. NGET is liaising with NRW regarding SSSI Assent for the works.
- 7.4.6 The SSSI Assent is a standard consent, and is unlikely to present an impediment to the delivery of the Project.

*Flood Risk Activity Permits ("**FRAP**")*

- 7.4.7 Four Horizontal Direction Drill crossings are required to as part of the Project to drill under the river beds and at these locations it is likely that a FRAP will be required from NRW.

- (a) **HDD 1** - Circuit 2: Crossing of Afon y Bala between Llyn Peris and Llyn Padarn in Dinorwig;

(b) **HDD 2** - Circuit 3: Crossing of Afon y Bala between Llyn Peris and Llyn Padarn in Dinorwig.

(c) **HDD 3** - Circuit 2: Crossing of Afon Rhythallt at Craig-y-Dinas; and

(d) **HDD 4** - Circuit 3: Crossing of Afon Rhythallt at Pen-y-Llyn.

7.4.8 NGET and its contractor are liaising with NRW regarding FRAP for the works. The FRAP is a standard consent, and is unlikely to present an impediment to the delivery of the Project.

Protected Species Licence

7.4.9 A number of protected species licences will be required prior to commencement of parts of the scheme and NGET and its contractor are liaising with NRW regarding these. These licences are unlikely to present an impediment to the delivery of the Project.

GEMA Consent

7.4.10 Paragraph 2 of Schedule 3 to the 1989 Act provides that the Secretary of State may not confirm the Order authorising the acquisition of land belonging to another electricity licence holder except with the consent of the Gas and Electricity Market Authority ("GEMA").

7.4.11 Accordingly as the Order may affect the rights and interests of such licence holders, GEMA Consent may be required. NGET will continue to assess this and any application for such consent will be made in conjunction with the Order.

7.4.12 As indicated in Paragraph 8.2.1, negotiations are progressing with all such licence holders and hence there is no reason why the GEMA Consent will not be forthcoming, in the event that it is required.

Scheduled Ancient Monument ('SAM') Consent

7.4.13 Minor works may be required to a low level wall within the boundary of a Scheduled Ancient Monument in Dinorwig Quarry area where the cable route working area crosses the footprint of a Scheduled Monument (CN 163 - the Hafod Owen winding engine, Fire Queen locomotive shed, waterwheel and housing), hence SAM consent is likely to be required in respect of those works. NGET is liaising with Cadw regarding the consent. Due to the minor nature of these works, the requirement for this consent is unlikely to present an impediment to the delivery of the Project.

8 SPECIAL CATEGORY LAND & STATUTORY UNDERTAKERS

8.1 Special Category Land: Open Space

8.1.1 Sections of the Project will pass through areas of Open Space. This term is defined in the 1981 Act as "any land laid out as a public garden, or used for the purposes of public recreation, or land being a disused burial ground."

8.1.2 Whilst no freehold interest is being acquired in Open Space, Cable Rights, Construction and Operational Access Rights and Construction and Compound Rights to facilitate the Project are being sought in respect of Open Space.

8.1.3 These rights engage section 28 and paragraph 6(1)(a) of Schedule 3 to the 1981 Act and accordingly an application for a certificate in relation to Open Space will be made

to the relevant Welsh Minister on the basis that “*the land, when burdened with that 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*”.

- 8.1.4 In these circumstances the Cable Rights will allow for the installation of cabling, either by HDD or open cut – in the latter case this will be in sections of approximately 30 metres at one time (as set out in Section 2.4 (*Trenching Cabling Works*) above). The trench for the cables is then backfilled and the land restored. The cabling works in the open space will therefore take place over a temporary period, in phases and in limited sections of land. Once constructed those areas of land will be available as Open Space as before. Maintenance and future works will be carried out at the joint bays and via the link boxes. NGET will also temporarily divert any paths impacted by the cabling works to allow users of the Open Space to continue to use the land during cabling.
- 8.1.5 The Construction and Compound Rights are required to facilitate HDD works near Dinorwig. The HDD areas will be temporary in order to install the cables and once installed the land will be restored and will be open for public use.
- 8.1.6 Where Construction and Operational Access Rights are required on Open Space land the rights will be used to facilitate access for construction vehicles during the construction of the cables. The land will be restored once the cables are commissioned. NGET may need to utilise these rights in the future for ongoing maintenance works for the cables, however, any use will be temporary.

8.2 **Local Authorities & Statutory Undertakers**

Interests are held by the following local authorities and statutory undertakers in land affected by the Project: Gwynedd County Council, British Telecommunications plc, Cornerstone Telecommunications Infrastructure Limited, Dwr Cymru Cyfyngedig, First Hydro Company, National Grid Electricity Transmission plc, National Grid Gas plc, Scottish Power Limited, SP Manweb plc, Vodafone Limited and Wales & West Utilities Limited. There is also a heritage railway – the Llanberis Lake Railway.

- 8.2.1 NGET’s discussions and negotiations with each of these parties is ongoing.

9 **FUNDING & DELIVERY**

9.1 **Timetable for delivery**

- 9.1.1 NGET is currently utilising an Early Contractor Involvement contracting strategy for development and gate review for construction flow through for the Project. The timeline for the physical work is scheduled to commence with construction activities allowed by permitted development rights and NRSWA in Q4 2021.
- 9.1.2 The current timetables for the works are as follows:
- (a) Cable containment system works in the highways around Llanberis under Permitted Development rights and/or NRSWA will begin in Q4 2021 and run until the first half of 2024. The timings of the works in highways will be subject to embargo periods imposed by the Council;
 - (b) Cable containment works for Circuit 3 within Dinorwig will commence in Q1 and finish in Q3 of 2022;

- (c) Cable installation within the above sections of completed containment will commence in early 2023;
- (d) NGET have negotiated outages with First Hydro Company which are planned as follows:
 - (i) Circuit 3 outage² between April 2024 – June 2024;
 - (ii) Circuit 2 outage between April 2025 – June 2025; and
 - (iii) Circuit 1 outage between April 2026 – June 2026.

During these outages the new substation bays inside Dinorwig will be installed. Towards the end of each of these outages each Circuit will then be commissioned, energised and made available for commercial load.

- (e) Subject to the CPO process NGET anticipates that access to the land in the Order will be required from Q3 2023. Further containment work in these areas will take an estimated period of 9 months to complete. Cable installation in Circuit 3 prior to its commissioning and energisation will take place in the first half of 2024. Further, NGET intends to begin HDD crossings in Q3 2023. NGET has made the Order to ensure that it can deliver the Project in line with these timeframes.

9.1.3 NGET's intention is for the cables to be operational by June 2024 for Circuit 3, June 2025 for Circuit 2 and June 2027 for Circuit 1 and for all decommissioning and/or removal works to be completed by autumn 2027. The timing will accord with the commercial terms agreed with NGET's customer, First Hydro.

9.2 Funding

9.2.1 In 2019, Ofgem set out the framework for the price controls in their Sector Specific Methodology Decisions. In December 2019, NGET and NGESO submitted their business plans to Ofgem setting out proposed expenditure for RIIO-2. These plans were assessed, together with engagement of a wide range of stakeholders, the results were published via Draft Determinations in July 2020.

9.2.2 Based on that review and further engagement on the Draft Determinations, Ofgem set out their Final Determinations for company allowances under the RIIO-2 price control, which commenced on 1 April 2021. As a result of its Final Determinations, Ofgem has allowed initial funding for the Project and based upon this allowance NGET has continued to develop the Project works – covering engineering requirements, customer co-ordination and landowner and stakeholder consultation.

9.2.3 In January 2021 National Grid also sanctioned this funding to allow the continuation of the Project works in line with the RIIO-2 Final Determination output.

9.2.4 The Project is now subject to the RIIO T2 full funding application process (Large Onshore Transmission Investment ("LOTI")) mechanism. This process typically requires a three-stage approach:

1. Initial Needs Case;
2. Final Needs Case; and

² "Outage" is an industry term for periods where the electricity is disconnected and isolated from the cable and the portion of the system is switched off.

3. Project Assessment.

9.2.5 Following Final Determination, NGET has worked collaboratively with Ofgem via monthly Bi-lateral meetings and it has been confirmed that the Project has met the Initial Needs Case criteria. NGET will submit a combined Final Needs Case and Project Assessment in October 2021. On-going Bi-lateral monthly meetings shall support the Needs Case and Project Assessment to agree funding. NGET is confident that full funding will be awarded through the LOTI mechanism and as such funding is not likely to pose an impediment to the Project.

9.3 **Statement Justifying Extent of Scheme to be Disregarded for the Purposes of Assessing Compensation in the No Scheme World**

9.3.1 Section 6A(1) of the Land Compensation Act 1961 ("**LCA 1961**") provides that *"the no scheme principle is to be applied when assessing the value of land in order to work out how much compensation should be paid by the acquiring authority for the compulsory acquisition of land."*

9.3.2 For the purposes of s.6A, it is therefore a requirement to include in a Statement of Reasons the extent of the Scheme to be disregarded for the purposes of assessing compensation in the 'No Scheme World'.

9.3.3 In most cases the 'scheme' means the scheme of development underlying the acquisition and provided for by the Order unless it is shown that the underlying scheme is larger than, but incorporating the scheme provided by the Order.

9.3.4 In the case of the Project, the 'scheme' is the Project as a whole which is in part enabled by the Order.

10 **ALTERNATIVES TO THE ORDER**

10.1 **No Action**

This is not an alternative option given the urgent and compelling need to replace the cables as described elsewhere in this Statement of Reasons.

10.2 **Options Appraisal**

10.2.1 This paragraph summarises the options that were considered in developing the detailed proposals for the Project.

10.2.2 An initial baseline assessment of factors that would affect the development options was undertaken. This included landscape and visual factors, designated sites for nature conservation, the historic environment, air quality, geology and topography, land use and soils, hydrology and flood risk, tourism and socio-economic factors, traffic and transport constraints, and the presence of existing infrastructure and services.

10.2.3 A number of technology options were then investigated:

(a) Temporary Overhead Line (OHL)

The feasibility of providing temporary OHLs along the existing cable route, to enable power supplies to be maintained whilst the cables were replaced, was considered as an option for those sections of the existing route where there is currently insufficient space on the existing cable route to install the new cables alongside. In these areas cables cannot be replaced without first

switching off the cables, for example in the cable tunnel at Dinorwig and alongside the shore of Lake Padarn. The potential use of temporary OHLs was assessed as not being practical alongside Lake Padarn because of limitations on space, environmental constraints such as woodland SSSI's and steep terrain. NGET therefore concluded that it was not practicable to continue investigating the temporary OHL option.

(b) In-situ Replacement of Existing Cables

The cost and disruption of a number of lengthy single and double circuit outages to facilitate the in-situ replacement of the existing cables was discounted due to the negative impacts on the electricity network resilience, the cost of the outages required and the effects on the consumer. The in-situ replacement of cables could potentially disconnect Dinorwig for up to two years, which is unacceptable given the importance of that facility to the wider network.

(c) Use of Gas Insulated Line (GIL)

The use of Gas Insulated Line (GIL) was considered for the Project because of the potential advantages of the smaller footprint of GIL compared to XLPE cables. The main advantage of this technology would be where space was very restricted for example alongside the existing cables adjacent Lake Padarn and within the existing Cable Tunnel at Dinorwig. From previous project experience, if GIL is buried then the de-rating implications may require two 'tubes' per phase as opposed to one and the cost and space saving benefit may then not be realised. Frequent changes in direction and/or changes in elevation would also be required, to deal with the cable route constraints between Dinorwig and Pentir which would also result in increased complexity and cost. NGET concluded that there would be no likely reduction in cable footprint space in using GIL and it would be more expensive than cabling so this technology was discounted.

(d) Tunnelling

A tunnelling option for a new route through Dinorwig Mountain was considered, however, this was not taken forward on costs grounds.

(e) Cable Replacement with XLPE Cables

Phased cable replacement enabling the existing cables to remain operational was considered to be the only viable option to replace the existing underground cables at the end of their asset life. This was taken forward to the next level of optioneering as set out below to take particular account of the constrained and sensitive location.

10.2.4 The detailed design and routing for the preferred option was developed further. An environmental and socio-economic options appraisal of each of the cable route options was then carried out. Each route option was considered against the following environmental topics: landscape, views, ecology, historic environment, water (flood and pollution risks), geology and soils and traffic and transport. The environmental information for each cable route section was considered alongside technical and cost considerations to identify a preferred underground cable route between Pentir and Dinorwig for consultation with statutory consultees and stakeholders. In addition an assessment of the costs and benefits of installing three circuits to replace the two existing circuits was undertaken. This concluded that the three circuit option should be taken forward as it was a more efficient solution.

10.2.5 The preferred route option that was taken forwards for consultation and development in 2020 comprised:

- (a) Circuit 1 - Pentir Substation to Penisa'r Waun SEC via an agricultural route to the south west of Pentir then along the north of Afon Rhythallt and alongside Llyn Padarn to Dinorwig.
- (b) Circuit 2 - Penisa'r Waun SEC then south of Afon Rhythallt and Llyn Padarn the majority of route is within the road or road verge and footpath of the A4086 to Dinorwig.
- (c) Circuit 3 - Pentir Substation to the Penisa'r Waun SEC via an agricultural route to the south west of Pentir then south of Afon Rhythallt and Llyn Padarn. The majority of route is within the road or road verge and footpath of the A4086. It follows the road to the National Slate Museum, and takes a private road along the northern edge of Llyn Peris, to a number of buildings associated with Dinorwig.

10.2.6 As part of ongoing back-checking and review of the design, in late 2020 /early 2021 further detailed design by NGETs contractor concluded that a route along the highway rather than one direct across farmland was possible. A route along the A4244 had been discounted in earlier stages as it was not considered a viable option due to insufficient space in the carriageway. Developments in the engineering studies however confirmed that three cables per circuit could be run in Trefoil Formation which requires a narrower trench of 0.8m wide. This design development means that laying cables within the A4244 and adjacent verges became a viable option.

10.2.7 The final proposed scheme uses the road and road verges for the full length of the A4244 from its junction with the B4547 to its junction with the A4086. It avoids the need for approximately 4 kilometres of the cross-field route from Pentir Substation to Penisa'r Waun and removes the need to compulsorily acquire rights over private land in these areas. This will result in fewer environmental effects, particularly with regard to archaeology and ecology, together with fewer temporary landscape effects.

10.2.8 The preferred route option that has been taken forwards for construction in 2021 comprises:

- (a) Circuit 1 - Pentir Substation to Brynrefail via the A4244 then along the north of Llyn Padarn to Dinorwig.
- (b) Circuit 2 - Penisa'r Waun SEC then south of Afon Rhythallt and Llyn Padarn the majority of route is within the road or road verge and footpath of the A4086 to Dinorwig.
- (c) Circuit 3 - Pentir Substation to Dinorwig Power Station via A4244 and the A4086. It follows the road to the National Slate Museum and takes a private road along the northern edge of Llyn Peris and into Dinorwig via the main access tunnel portal.

10.3 **Substation works**

10.3.1 As part of the consideration of alternatives, NGET considered the nature and timing of the necessary substation works, and concluded that connecting to Pentir remains the preferred option.

10.4 **Water Discharge Rights**

10.4.1 There are limited options available with regards to water discharge. Temporary discharge from construction working areas has to be made as close to the working area as possible. Temporary attenuation ponds may be required to manage site discharges and their location will be determined by available land and site profile.

10.5 **Environmental Mitigation Measures**

10.5.1 NGET has an objective to achieve net gain on projects. Essential habitat mitigation is yet to be confirmed but it is expected that the mitigation will be completed on land owned by NGET, or within the easements for the cables.

10.6 **Removal and Decommissioning of Existing Underground Cables and Associated Infrastructure**

10.6.1 There are limited alternatives in terms of the removal of the existing underground cables.

10.6.2 The Order provides for a very limited but necessary degree of flexibility in terms of access routeing, and associated temporary land for removal and decommissioning of cable infrastructure. However, the precise micro-siting will be carried out to minimise the impact on land interests, the environment and the local transport network and in order to accord with NGET's statutory duty to be economic, efficient and co-ordinated.

11 **HUMAN RIGHTS, EQUALITY ACT 2010 & WELL-BEING OF FUTURE GENERATIONS CONSIDERATIONS**

11.1 **Human Rights Implications**

11.1.1 The European Convention rights potentially applicable to the making of the Order are Articles 6 and 8 and Article 1 of the First Protocol (as contained in Schedule 1 to the Human Rights Act 1998).

11.1.2 Relevant parts of Article 1 of the First Protocol of the Convention provide:

"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 law and by the general principles of international law".

11.1.3 Relevant parts of Article 8 of the Convention provide:

"1. Everyone has the right to respect for his private and family life, his home and his correspondence.

2. There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary in a democratic society in the interests of ... the economic well-being of the country ..."

11.1.4 The Order has been made pursuant to Section 10 and Schedule 3 of the 1989 Act which authorises NGET to acquire land, new rights and existing rights compulsorily subject to following the procedures laid down in the 1981 Act.

11.1.5 NGET is taking a proportionate approach to compulsory acquisition. Rather than acquiring the freehold title to all land comprised within the Order limits, NGET is only

seeking to acquire permanent rights (such as the right to install and operate the cables and the right to decommission and/or remove the existing circuits).

- 11.1.6 NGET is seeking to acquire only those rights which are absolutely necessary to facilitate delivery of the Project.
- 11.1.7 NGET considers that there is a compelling case in the public interest that the rights referred to in the Order be acquired in order to achieve the purposes described in this Statement.
- 11.1.8 If the Secretary of State agrees with NGET that there is a compelling case in the public interest, he or she may confirm the Order.
- 11.1.9 If the Order is confirmed, compensation may be claimed by persons whose interests in land have been acquired or whose possession of land has been disturbed proportionate to any losses that they incur as a result of the acquisition.
- 11.1.10 In the circumstances, if the Order is confirmed, it is considered that the compulsory acquisition of rights referred to in the Order will not conflict with Article 1 of the First Protocol or Article 8 of the European Convention as any interference with the rights will be in accordance with the law, justified and proportionate.
- 11.1.11 Relevant parts of Article 6 provide that:
- "1. In the determination of 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."*
- 11.1.12 So far as the Order is concerned, any owner, lessee or occupier of land included in the Order will be notified and may have the opportunity to make representations to the Secretary of State and to be heard at a public inquiry before a decision is made as to whether or not the Order should be confirmed, and would in any event have legal rights under the 1981 Act to challenge any order made on the relevant statutory grounds.
- 11.1.13 NGET is satisfied that there are no planning or financial impediments to the implementation of the Project and that the Project is therefore likely to proceed if the Order is confirmed.
- 11.1.14 For the reasons set out above, there is considered to be a compelling case in the public interest to proceed with the Order to facilitate the decommissioning and/or removal of the existing ageing oil filled cables and the installation of three new cable circuits between Dinorwig and the NGET substation at Pentir and the SEC at Penisa'r Waun.

11.2 **Equality Act 2010**

- 11.2.1 As a non-public body exercising public functions, NGET has a statutory duty under Section 149 of the Equality Act 2010 to have due regard to the need to:
- (a) eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under the Act;
 - (b) advance equality of opportunity between persons who share a relevant protected characteristic and those who do not share it; and

- (c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it.
- 11.2.2 The relevant protected characteristics are: age; disability; gender reassignment; pregnancy and maternity; race; religion or belief; sex; and sexual orientation.
- 11.2.3 The Project has been designed to run along highways, agricultural land, watercourses and other non-residential areas. As such the Project will keep the disruption to those living along the route to a minimum; this will not cause differential impacts to those individuals or groups of individuals who share a relevant protected characteristic.
- 11.2.4 As mentioned in Section 6 (*Acquisition Strategy & Progress to Date*), NGET is undertaking negotiation with landowners impacted by the Order and has made particular efforts to avoid the need to use compulsory purchase powers by negotiating by private treaty and by using its powers under NRSWA. Furthermore, NGET is using existing sites in its ownership, such that this has minimised any disadvantages to those who share a relevant protected characteristic.
- 11.2.5 NGET has carried out community engagement. NGET circulated a community mailing explaining the Project in March 2021 and a newsletter about the Project in July 2021. NGET will continue to engage with the community as the Project progresses, to keep people up to date on its work. Nothing arose from the engagement to date that caused NGET to become concerned that the Project would have a disproportionate effect on any individuals or groups of individuals with protected characteristics.
- 11.2.6 In light of the above, NGET considers that it has given due regard to the public sector equality duty set out in Section 149 of the Equality Act 2010 in promoting this Order for the Project.

11.3 **Well-Being of Future Generations (Wales) Act 2015**

- 11.3.1 The Well-Being of Future Generations (Wales) Act 2015 (the "**2015 Act**") places a duty on public bodies in Wales to carry out development in a manner which is sustainable and therefore compatible with the overriding goal of ensuring that present-day needs are met without compromising the ability of future generations to meet their own needs.
- 11.3.2 The 2015 Act does not however apply to certain acquiring authorities, including utility companies and electricity licence holders.
- 11.3.3 As an electricity transmission licence holder, NGET recognises the continued importance of sustainable development in Wales and is fully supportive of all efforts made by other acquiring authorities to whom the 2015 Act does apply to exercise powers of compulsory purchase in accordance with the prescribed well-being goals.

12 **CONCLUSION**

- 12.1 This Statement sets out the nature of the Project in Section 1 (*Introduction*) and Section 2 (*The Project*).
- 12.2 It summarises the need for the Project in Section 3 (*Need*) and in particular the need to replace the aging cables whilst ensuring electricity supply is continued throughout the works.
- 12.3 In NGET's view, this compelling case in the public interest justifies the proportionate interference with, and the overriding of, the private interests of those in the Order

land as considered in Section 11.1 (*Human Rights Implications*) given that NGET are seeking a proportionate approach to compulsory acquisition as described below.

- 12.4 In the majority of cases, the interests sought to be acquired are to install the new cables and electricity infrastructure using cut and cover or HDD, or decommissioning/removal of existing cables and infrastructure. For the cut and cover and decommissioning rights the land will be restored following the works and thereafter periodic access will be required for maintenance and future works to the cables. Accordingly whilst these rights interfere with the ownership rights of the existing landowners, they do not deprive owners of their land and post-construction and commissioning of the cables there will be minimal impact on the majority of the Order land.
- 12.5 The majority of other rights including temporary construction compounds and access routes will only be used on a temporary basis and so the impact of these rights on the existing landowners will be temporary.
- 12.6 As detailed in Section 6 (*Acquisition Strategy & Progress to Date*) NGET has been seeking to negotiate voluntary agreements with landowners for the rights. NGET already has some rights in relation to the cables in certain areas and has issued terms where additional rights are required or variation to those existing rights are required.
- 12.7 Due to the pressing need to replace the ageing cables, NGET is bringing the Order forward to ensure that all necessary rights can be acquired within a reasonable timescale to enable the Project to proceed and also to address any unknown land rights and interests.
- 12.8 NGET has explained the funding basis for the Project in Section 9 (*Funding & Delivery*), addressing how funding will be available for the early stages of the Project and how NGET will continue to engage with Ofgem to ensure funding is available thereafter.
- 12.9 Section 7 (*Other Consents*) and Section 8 (*Special Category Land & Statutory Undertakers*) explain why there are no planning or other impediments to the Project proceeding.
- 12.10 Whilst a number of other consents and certificates are required, these are either subject to outstanding applications which will be concluded or will be determined in conjunction with the Order (such as the Special Category Land Certificate application and any necessary GEMA Consent). Alternatively they are of the type which it is usual for contractors to obtain from the relevant local authority at a later stage in the construction programme.
- 12.11 Accordingly, and given that NGET is in active negotiations with all relevant parties, NGET does not anticipate any impediments to the Project proceeding.
- 12.12 In light of the above considerations and in accordance with the statutory and applicable policy tests, NGET has made the Order and will submit the Order to the Secretary of State for confirmation.

Dated: 24 September 2021

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Solicitors to National Grid Electricity Transmission Plc

LIST OF DOCUMENTS:

In the event of a public inquiry being held in respect of the Order, NGET would intend to refer to or put in evidence the following documents:

- 1 *Order*
- 2 *Map showing route and position of project*

Copies of these documents have been made available on the Project website <https://www.nationalgrid.com/uk/electricity-transmission/network-and-infrastructure/dinorwig-pentir> and are also available on reasonable request made in writing to "NGET Dinorwig Cable Replacement Project, C/O Fisher German Charles House 2 Royal Court, Tatton Street, Knutsford, WA16 6EN", by email to nationalgrid@dinorwig.co.uk or by telephoning 03301340066.