

**THE NATIONAL GRID ELECTRICITY TRANSMISSION PLC (LONDON POWER
TUNNELS 2) (BENGWORTH ROAD CONNECTION) 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 RIGHTS
FOR THE BENGWORTH ROAD CONNECTION TO LONDON POWER TUNNELS 2**



THE ELECTRICITY ACT 1989 AND THE ACQUISITION OF LAND ACT 1981

THE NATIONAL GRID ELECTRICITY TRANSMISSION PLC (LONDON POWER TUNNELS) (BENGOWORTH ROAD CONNECTION) COMPULSORY PURCHASE ORDER 2021

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 (London Power Tunnels 2) (Bengeworth Road Connection) Compulsory Purchase Order 2021, (the "**Order**") under Section 10 of the Electricity Act 1989 and Schedule 3 of the Electricity Act 1989 (the "**1989 Act**") and the Acquisition of Land Act 1981 (the "**1981 Act**").
- 1.2 This Statement of Reasons 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 with regard to the Guidance generally. It is not intended to constitute the Statement of Case that 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 successfully undertook the London Power Tunnels 1 project ("**LPT1**") which was energised in early 2018 after a seven year construction programme. LPT1 comprised the construction of around 32 kilometres of high voltage electricity cable tunnel between Hackney and Willesden (via Kensal Green), Kensal Green and Wimbledon. LPT1 replaced existing aged assets, providing a more resilient transmission network in North London to meet current and future energy demands.
- 1.4 Following the successful implementation of LPT1, NGET turned its attention to the continuation of London Power Tunnels through and beneath South London. "London Power Tunnels 2" ("**LPT2**") is the collective term for three projects, each relating to a specific "Circuit" ("Circuit 1", "Circuit 2" and "Circuit 3"). Each Circuit is separate and independently operable from the others.
- 1.5 The Circuit 1 – Wimbledon to New Cross and Circuit 2 – New Cross to Hurst Compulsory Purchase Orders 2019 were confirmed by the Secretary of State for Business, Energy and Industrial Strategy on 4th February 2021. The Order now seeks the necessary subterranean land rights to change part of the alignment of Circuit 1 (Wimbledon to New Cross) between Coldharbour Lane and Denmark Hill which is now proposed to route via a site with an access shaft and headhouse at the existing London Power Networks ("**LPN**") substation site off Bengeworth Road, Lambeth ("**LPN substation**") in order to provide a connection to the LPN substation.
- 1.6 In London, LPN is often used interchangeably with "**UKPN**" (UK Power Networks). The owner of the substation site at Bengeworth Road and holder of the electricity distribution network operator licence in London is LPN. UKPN owns LPN (as it does South Eastern Power Networks and Eastern Power Networks for other English regions). The Circuit 1 Project and the proposed Bengeworth Road Connection alignment are described further in Section 2 of this Statement of Reasons.
- 1.7 As with LPT1, the objective of LPT2 is to replace aged and degrading oil-filled cables before they reach the end of their operational life and to ensure a stable electricity transmission system and the additional objective of this particular Order is to

facilitate a route alignment change to the alignment to Circuit 1 (Wimbledon to New Cross) to provide a connection to the LPN substation for the reasons explained further in section 2.

- 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 Order will enable NGET to acquire compulsorily the new rights included in the Order for the tunnel (the "**Order Rights**") in order to facilitate the delivery of the Bengeworth Road Connection. The only above ground site required for the delivery of the access shaft, head house and new substations is located within the LPN substation land off Bengeworth Road and National Grid have secured a lease from LPN (the long leasehold owner (the freehold is owned by EDF Energy Limited)) in respect of this land interest. As such no other above ground rights are required or sought for the delivery of the Project and the Order therefore only includes Tunnel and Cable Rights for the alignment from Denmark Hill to Coldharbour Lane.
- 1.10 NGET's approach to the Order is to seek Order Rights only for those parts of the tunnel in land that is not beneath the public highway. NGET will rely on its statutory street works powers under the Electricity Act 1989, Schedule 4, and the New Roads and Street Works Act 1991 for those parts beneath the highway. This has the advantage of reducing the number of interests that are included in the Order and is consistent with the approach taken on LPT1 and LPT2 Circuits 1 to 3.

Overview of the various roles in the electricity network

- 1.11 NGET is one of three Transmission Owners ("**TO**") and owns the high voltage (mainly 132 kV or higher) electricity transmission network in England and Wales. Its obligations include building and maintaining the electricity transmission network safely, reliably, economically and efficiently; providing transmission services i.e. making its system available to National Grid Electricity System Operator Ltd ("**NGESO**") to operate; and providing connection offers to NGESO in response to a User (generator, demand etc. customer) wishing to connection to NGET's Transmission System). These obligations are imposed on NGET by its Electricity Transmission Licence, the energy regulator OFGEM, the Electricity Act 1989 ("**Act**") and the System Operator Transmission Code ("**STC**").
- 1.12 The role of NGESO as System Operator is to co-ordinate and direct the flow of electricity onto and over the National Electricity Transmission System ("**NETS**") (the transmission system in Great Britain) in an economic and co-ordinated manner. NGESO must maintain system balance minute by minute, and address supply and demand mismatch, generation shortfall and/or high demand and insufficient generation margins to maintain supply. Additionally, NGESO manages the connection application and offer process in Great Britain between the party wishing to connect to the NETS (generator, demand etc) and NGET. These obligations are imposed on NGESO by way of its Transmission Licence, OFGEM, the Act and several electricity transmission codes (which are for practical purposes multilateral contracts).
- 1.13 LPN is a Distribution Network Operator ("**DNO**") and as such owns and operates the low voltage (mainly less than 132kV) electricity distribution network in the London region. There are 14 such regions in Great Britain operated by 6 DNOs. DNOs have similar obligations to Transmission Owners in relation to the safety and reliability of their respective distribution systems and the provision of connection offers to parties looking to connect at distribution level.

2 THE SCHEME

2.1 Description of the Scheme

London Power Tunnels 2 (LPT2) – Circuit 1

- 2.1.1 NGET is constructing underground tunnels over approximately 12km to carry 400kV cables between the Wimbledon Substation (where LPT1 terminated – see above) to a substation at New Cross. These start and finish points are fixed as direct replacement points for the existing circuit cables. A compulsory purchase order for Circuit 1 was confirmed on the 4th February 2021. Between Wimbledon and New Cross there is an above ground/headhouse site at King’s Avenue.
- 2.1.2 The routing strategy for the tunnel, as described above and as well as considering environmental and engineering considerations, took into account the benefits of tunnelling beneath the highway and open spaces to reduce the number of interests affected by the Order. This was coupled with the practical and cost benefits of keeping the route as direct as possible so the route takes a broadly north-easterly route through Lambeth, Wandsworth and Southwark.
- 2.1.3 The fixed start and end points enabled a zone to be established in which the headhouse would be located, and the King’s Avenue site was identified. Among its other benefits, the site was (a) largely open (as a builder’s storage yard) and (b) had a willing buyer (demonstrated by the site being subject to voluntary acquisition).
- 2.1.4 The tunnels are constructed from a series of vertical deep shafts that will send and receive (as appropriate) the tunnel boring machines (“**TBMs**”) which will tunnel the cable route at depth, connecting these shaft access points. This means that during the construction phase of the Circuit 1 Project, the above ground activity which is perceptible to the general public will be in and around these shaft sites and once operational, the activity will diminish significantly. During construction and then in operation, the deep shafts provide access to the tunnels and allow for ventilation.

Bengeworth Road Connection – Alignment

- 2.1.5 The Bengeworth Road Connection will connect London Power Networks’ (LPN) 132kV electricity distribution system to National Grid Electricity Transmissions (NGET) 400kV electricity transmission system. This will be achieved by the construction of a new 400kV NGET Grid Supply Point (“**GSP**”) substation, the connection to the planned New Cross to Wimbledon 400kV underground cable electricity line and with a new 132kV LPN substation.
- 2.1.6 The new 400kV NGET GSP will lower the voltage of the electricity flowing through the planned New Cross to Wimbledon 400kV underground cable electricity line from 400kV to 132kV via two Supergrid Transformers (“**SGT**”) for one of the circuits (in 2025) and a further circuit connection to a third SGT (in or around 2032), which will allow LPN to connect to it, enabling them to improve their electricity supply resilience to the surrounding area and meet increased demand.
- 2.1.7 The Order facilitates subterranean elements of the Bengeworth Road Connection, however, the project in totality is comprised both above ground and below ground works. In summary the above ground works include:
- (a) construction of a 15m diameter tunnel shaft to a depth of approximately 33m and installation of high voltage electric cables;

- (b) construction of head-house (building located above the tunnel shaft) approximately 13m by 15m with a maximum height of 10m plus the adjacent operation block;
- (c) demolition of existing multi-storey car-park, falling on operational land;
- (d) construction of a 400kV GIS (gas insulated substation) with adjoining annex in a steel framed building with an approximate footprint of 37m x 18m and a maximum height of 15m and a new 132kV GIS substation contained in a building with an approximate footprint of 43m by 15m and maximum height of 13.5m;
- (e) Installation of 2x 400/132kV Super Grid Transformers (SGTs) encompassed by two reinforced concrete oil containment bunds of approximately 12m x 22m;
- (f) ancillary structures comprising a new workshop unit, storage unit and emergency diesel generator unit; and
- (g) temporary reconfiguration of the internal site roads to provide safe access to construction areas.

2.1.8 The shaft will be a means of access from the surface to the cable tunnel. For safety reasons, the shaft is excavated first and the underground tunnel then connects into and through it. The head-house sits over the shaft. The other above ground apparatus is associated with the connection of the NGET supply via the cable tunnel into the LPN substation apparatus.

2.1.9 Once the decision was made to re-align the Circuit 1 tunnel to ensure a direct connection with the LPN substation site at Bengeworth Road (see section 2 below) this then had to be achieved by:

- (a) ensuring as direct a route as possible taking account of engineering and environmental considerations; and
- (b) maximising, as far as possible, a route beneath the public highway and open space to minimise private interests that are affected.

2.1.10 Once the need to modify the Circuit 1 alignment had been established to allow for the connection at Bengeworth Road substation, the Bengeworth Road Connection alignment became the best possible option as it minimised the distance, which accordingly minimises the amount of spoil created from the tunnel drive that needs to be transported away from the New Cross site.

2.1.11 The tunnel route diverges from the Circuit 1 alignment north of the junction of Coldharbour Lane and Denmark Hill and, whereas the original alignment passed beneath and along Coldharbour Lane, the new alignment arcs south and then west to take the tunnel beneath the LPN substation at Bengeworth Road. The tunnel "re-joins" the original Circuit 1 alignment at the junction of Coldharbour Lane and Loughborough Park.

2.1.12 Taking account the above, the tunnel has to pass beneath several private/commercial properties as well as King's College Hospital where the horizontal alignment of the route is restricted by the capability of the tunnel boring machine to construct a minimum radius bend of 250m. In this way, the revised alignment adds only an additional 135m on to the overall Circuit 1 length.

- 2.1.13 The Order excludes those areas of the tunnel beneath or within the highway. This approach was taken in LPT1 and Circuits 1 to 3 of LPT2 and allows NGET to take a proportionate approach to acquisition of Order rights as explained in paragraph 1.10 above.
- 2.1.14 In respect of the land comprised in the Order along the tunnel alignment, no surface access is required in order to construct, use and maintain the tunnel. Access to the land comprised in the Order will be via adjacent sections of the tunnel.
- 2.1.15 The depths of the tunnel (measured to the crown of the tunnel) will be no higher than 20 metres below ground level and most of the tunnel will be located at a depth of approximately 25 metres. The Order will seek an ability for the tunnel to deviate vertically, but will set a "not less than" depth for the rights so that landowners know the tunnel will not be shallower while at the same time allowing NGET some flexibility if unexpected conditions are encountered.
- 2.1.16 The Order will contain the rights for the construction, commissioning and maintenance etc. of the tunnel together with a zone surrounding the tunnel which will safeguard that area from third party interference to protect the structural integrity of the tunnel. The protection zone will be 6 metres above and below the tunnel (i.e. 16.5m vertically in total) and 3 metres either side of the tunnel. Therefore, the rights corridor will be at a depth of at least 14 metres below the ground. In some locations, on a case by case basis, the overall lateral rights corridor will reduce very slightly from 10.5 metres (i.e. 3m either side of a 4.5 metre external diameter tunnel). In these cases excluding a very small extent of a new interest from the Order is judged appropriate on balance without affecting the deliverability or integrity of the tunnel.
- 2.1.17 In accordance with Schedule 9 of the 1989 Act, NGET, 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, 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.

2.2 **The Bengeworth Road Connection Request**

- 2.2.1 Following a connection application from NGESO for a party to connect to NGET's transmission system, NGET is obligated under its transmission licence and the STC to make an offer to NGESO (a Transmission Owner Construction Offer ("**TOCO**") detailing the terms (essentially, work, cost and programme) for the connection of that party. There are very limited exceptions to NGET's obligation to make a connection offer, which are not relevant in these circumstances.
- 2.2.2 There is an application process to be followed that defines the tasks, formal documentation, interface requirements, timescales and responsibilities between NGESO and NGET. NGET is responsible for the design of the connection and the infrastructure of its Transmission System, provision of charging and capital cost information to NGESO, initial Outage requirements, programme of works, asset details, and the issue of the TOCO to NGESO.
- 2.2.3 In accordance with the STC, NGET is required to confirm to NGESO within a prescribed time period if it does not intend to submit a TOCO. The NETS Security and Quality of Supply Standards ("**SQSS**") sets out a coordinated set of criteria and methodologies that all transmission licensees shall use in the planning and operation of the national electricity transmission system of Great Britain.

2.2.4 Both planning and operational criteria are set out in the SQSS and these will determine the need for services provided to the relevant transmission licensees. The criteria presented in the SQSS represent the minimum requirements for the planning and operation of the national electricity transmission system. When NGET makes a connection offer to NGESO, it is required by its transmission licence to consider the SQSS position and requirements.

2.2.5 In this case, LPN made a request for a Grid Supply Point (“**GSP**”) for the reinforcement of its network (about which see section 2.3 below) through the NGESO to NGET. Having pursued the proper process, NGET made an offer, again via the NGESO to LPN. The Bengeworth Road Connection is the delivery of that connection pursuant to that offer.

2.3 **Need for the Bengeworth Road Connection**

2.3.1 The GSP at Bengeworth Road is part of a whole system solution which requires assessment of transmission and distribution, load forecasts, asset health data, along with associated network reinforcement scope and cost over the long term. Following receipt of the Connection Application from LPN and subsequent collaborative working with LPN it was concluded that:

- (a) LPN demand at the City Road substation, inner London, requires an extra SGT at New Cross within the funding period ED-2 (the DNO’s equivalent of RIIO T2 and which starts in 2023). This is required whether Bengeworth Road GSP is built, or the existing configuration is maintained. However, the City Road substation has been discounted as a viable option for a new SGT because the site already comprises of 6 SGTs and the inclusion of a seventh SGT at the site will likely result in significant reinforcements on the distribution system;
- (b) These increased demand scenarios cannot be ignored without consequences for the management and maintenance of the network in compliance with the SQSS;
- (c) In the New Cross – Wimbledon group of networks, the future demand analysis points to an additional SGT being required at New Cross by 2026 (this is a second SGT to the one referred to in (a)). Without Bengeworth Road, the existing network would need significant downstream upgrade/reinforcement to enable increased demand. Wimbledon substation has been discounted as a viable option for similar reasons as City Road; and
- (d) Adding an SGT for the City Road interface at New Cross during ED-2, combined with an SGT to address demand increase, makes New Cross saturated; meaning there is no possibility to add any further SGTs at the existing New Cross site.

2.3.2 The Bengeworth Road Connection is not a direct contributor in and of itself to Government’s efforts to be “zero carbon” and its related efforts to convert petrol/diesel car use to EVs. However, this conversion is anticipated to require significant network reinforcement as the need for EV charging points grows (and quickly). Hence LPN considers that it needs at least 1 more additional SGT (so that becomes a total of 3 SGTs versus existing configuration) being required at New Cross by 2050. It is also by no means certain that current targets will remain as intended – for example the bringing forward from 2040 of the target for banning the sale of new petrol/diesel cars.

- 2.3.3 In the context of the need in this vicinity of the pressing need for two additional SGTs, together with the timing of the tunnelling of LPT 2 – Circuit 1, the logic for taking this chance and promoting the Bengeworth Road Connection is compelling. The Bengeworth Road Connection will accommodate two SGTs on-site and will be a direct connection into LPT2. Such a connection could not be realistic as a retrofit into the high voltage cable tunnel (it would not be feasible to dig a shaft into a “live” cable tunnel).
- 2.3.4 When the above network reinforcement is taken with concerns as to the continued ageing and corrosion of the existing oil-filled cable network, the case becomes even more powerful. The opportunity for this direct connection into LPT2 – Circuit 1 also maximises the efficiency of the power transfer between the transmission network and the distribution network because the further the power has to travel between networks, the more power is lost on that journey.
- 2.3.5 Initially, the intention was for the Bengeworth Road Connection to be delivered by the excavation of two tunnel adits (an adit is a spur tunnel connecting a shaft to a main tunnel and in this case would have been two adits of not insignificant length (up to approximately 400m)) from the LPN substation to connect into the LPT2 - Circuit 1 (prior to the commissioning of the high voltage cables) beneath Coldharbour Lane.
- 2.3.6 On further analysis a re-alignment of the LPT2 – Circuit 1 tunnel to pass beneath the LPN substation site and allow for a direct connection via a vertical shaft was preferred for the following principal reasons:
- (a) The excavation of the tunnel adits would have led to a much more intensive noise and dust effect on the local properties and their residents. In particular, a large number of HGV vehicle movements would have been required into and out of the LPN substation to take away the excavated material;
 - (b) As described above, there are network efficiency reasons for keeping the connection as close as possible; and
 - (c) The tunnel re-alignment option leads to overall project cost savings, and it is by no means certain that Ofgem would have approved a more expensive adit option as part of the negotiated funding round.
- 2.3.7 There are also significant environmental improvements associated with the re-alignment option, including: reduced concrete and steel quantities, reduced HV cable lengths, and reduced tunnel spoil quantities.
- 2.3.8 The realignment option, driving a tunnel boring machine straight through the Bengeworth Road shaft significantly reduces the risks associated with constructing adits in challenging geological conditions, thus giving greater certainty of achieving time and cost commitments for all stakeholders.

3 **ENABLING POWER**

- 3.1 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*”.
- 3.2 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.

3.3 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.”

3.4 Schedule 4 of the 1989 Act and the New Roads and Street Works Act 1991 enable NGET to use street works powers for those parts of the project in and beneath the “street”, hence not all of the tunnel route is the subject of this Order.

4 LAND AND RIGHTS REQUIRED

4.1 Permanent Land Acquisition

There is no land acquisition required pursuant to the Order in relation to the above ground sites for the Bengeworth Road Connection. All required above ground land rights have been secured by agreement with LPN.

4.2 Acquisition of New Rights

4.2.1 The new 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 4.2.3 below. The land over which the new rights are to be purchased compulsorily is shown coloured blue on the Order Map.

4.2.2 The land shown edged red and with no colour wash and to which no plot number has been assigned is comprised within the Bengeworth Road Connection but does not form part of this Order.

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

<p>“Tunnel and Cable Rights”</p>	<p>All rights necessary for the purposes of or incidental to the construction of the hereinafter mentioned Cable Tunnel and operation of the electricity infrastructure, including:</p> <ul style="list-style-type: none"> • the right to construct and install a concrete cable tunnel with an overall external diameter not exceeding 4.5 metres at a depth of not less than 20 metres below the surface of the land at the date of the Order together with any necessary or auxiliary apparatus (in the Order referred to as the “Cable Tunnel”); • the right to retain and make use of and from time to time inspect, cleanse, maintain, repair, alter and decommission and make safe the Cable Tunnel; • the right to place, attach and install electricity cables for the transmission and distribution of electricity together with all necessary ancillary cables, pipes, equipment, apparatus and fibre optic cables required in connection with the use
----------------------------------	--

	<p>and operation of the aforementioned electricity cables;</p> <ul style="list-style-type: none"> • to test and commission the electricity infrastructure installed within the Cable Tunnel 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; • to retain, commission, operate, inspect, maintain, repair, alter, renew, replace and remove or decommission the electricity infrastructure; • the right to enter the hereinafter mentioned Protective Strip and the Cable Tunnel from any adjoining cable tunnels and adits as often as may be required with or without vehicles and at all times with all necessary materials apparatus plant and equipment for the purposes set above and/or for the purpose of access to and egress from other parts of the NGET's Cable Tunnel and adits; • the right to all necessary rights of support for the Cable Tunnel; and • The right to all necessary rights of protection for the Cable Tunnel from any excavation, mining foundation or piling works within such part of the subsoil and under the surface of the land as comprises a strip (in the Order referred to as the "Protective Strip") thereof the upper limit of which shall not be greater than 6 metres from the top of the Cable Tunnel at the date of the Order and the lower limit of which shall not be greater than 6 metres below the bottom of the Cable Tunnel and the lateral limits shall not be greater than 3 metres on each side of the Cable Tunnel.
--	--

4.2.4 The rights to be acquired for the Bengeworth Road Connection are limited to Tunnel and Cable Rights in the subsoil at a depth of no less than 14 metres along the route of the tunnel as described in the Schedule to the Order and shown on the Order plans.

4.2.5 The above new rights are for the benefit of the undertaking of NGET for the transmission of electricity including without limitation such land and hereditaments forming part of that undertaking as are accommodated by the rights set out in the Order and this notice.

5 **ACQUISITION STRATEGY AND PROGRESS TO DATE**

5.1 **NGET's Acquisition Strategy**

5.1.1 NGET seeks to acquire land and all rights by voluntary agreement. A rigorous process has been undertaken firstly to identify and thereafter to engage with landowners and occupiers to acquire the necessary interests by agreement.

5.1.2 NGET's approach is aligned with the wider London Power Tunnels project where given the complex nature of landownership and occupation within central London there are often numerous consents required even at depth. The first stage is to approach all land interests. In most cases the freehold owner is able to provide all rights required for the construction and operation of the asset. Once freehold owners have completed heads of terms it would then become clear if contact is required with relevant leaseholders/tenants if the freeholder is not able to grant the full rights required. It is in NGET's best interest to secure all voluntary rights available, even if this is only possible with one of numerous parties required.

5.1.3 Negotiations with landowners and occupiers to secure voluntary easements, wayleaves or licences for the tunnels within the Bengeworth Road Connection have been ongoing since December 2020. NGET makes particular efforts to avoid the use of compulsory purchase powers by negotiating by private treaty.

5.1.4 Initially, heads of terms ("HoTs") are entered into, agreeing the principal terms which are translated into legal agreements.

5.1.5 Given that this is a linear, deep tunnel scheme passing through and beneath London it will inevitably cross existing assets held by statutory undertakers, including transport/highway authorities, in respect of which asset protection and crossing agreements will be required.

5.1.6 Whilst particular effort is being made to secure the necessary rights voluntarily, in order to ensure the timely delivery of this critical linear infrastructure project, it is now necessary to use compulsory purchase powers. Voluntary negotiations for the remainder of the necessary rights will continue in parallel to the CPO process.

5.2 **Progress**

5.2.1 As at 14 October 2021, out of the 28 interests NGET has secured 2 of the required easements for the tunnels. There are a further 20 where heads of terms have been agreed but not finalised, leaving 6 yet to be agreed.

6 **PLANNING POSITION**

6.1 **Permitted Development Rights**

6.1.1 Those parts of the Bengeworth Road Connection comprising of above ground works are consented pursuant to permitted development rights under Part 15, Class B of the Town and Country Planning (General Permitted Development) (England) Order 2015. This comprises: the drive shaft, reception shaft, headhouses, SGT and GIS and upgrades to existing substations on operational land.

6.1.2 The above development was confirmed by the London Borough of Lambeth as not being EIA development on 2 September 2021 following a screening application (referenced 21/01789/EIASC). This enables NGET to utilise the said permitted development rights. As part of this application NGET agreed and executed a deed of unilateral undertaking dated 31 August 2021 and made under section 106 of the

Town and Country Planning Act 1990. This unilateral undertaking committed NGET to construction phase and operational phase mitigation measures.

- 6.1.3 There will need to be an application for design approval for the headhouse site in due course once its design is better known. This is a typical process to be gone through by statutory undertakers looking to utilise permitted development rights for above ground buildings and is not considered to be an impediment that will prevent the delivery of the development to programme and to budget.
- 6.1.4 The re-aligned tunnel is itself subject to an application for a screening opinion. This application has not yet been determined by the London Borough of Lambeth. It is not expected to be controversial or refused because it relates to the subterranean tunnel and as such there are no likely significant environmental effects arising from the re-alignment, noting that the London Borough of Lambeth were content that circuit 1 itself was not EIA development.

7 **SPECIAL CATEGORY LAND**

- 7.1 The Order does not propose or seek the authorisation of the purchase of any land forming part of a common, open space or fuel or field garden allotment for the purposes of the 1981 Act nor does it include any land owned by the National Trust.
- 7.2 There are interests held by local authorities and statutory undertakers in the Bengeworth Road Connection. NGET's negotiation with these parties continues. The Order does not interfere with interests held by other licence-holders.

8 **FUNDING AND DELIVERY**

8.1 **Timetable for delivery**

NGET has commenced tunnelling works for Circuit 1, with site set-up and construction of the Bengeworth Road Connection taking place between 2021 and 2023. This starts with the above ground site set-up and excavating the shaft in readiness for the tunnel passing through. The shaft is approximately 16m deep at present (5th October 2021).

8.2 **Funding**

- 8.2.1 The Bengeworth Road Connection includes the load-related Underground Cables and Tunnels elements of the LPT2 portfolio and a new GIS substation. Funding for the scheme, referred to as the Bengeworth Road Grid Supply Point (GSP) Project, is provided through NGET's RIIIO-2 licence - the regulatory price control mechanism for investments of this nature.
- 8.2.2 Ofgem's decision to approve funding for the project was published on 14 June 2021. This decision approved the needs case for the project, the cost allowance and the outputs for the project. The Ofgem consultation included an extensive review of the needs case, the alternative options and justification for the project, and the efficient costs for the project. As a result, Ofgem considered that the Bengeworth Road GSP Project is the optimal strategic choice.

9 **ALTERNATIVES TO THE ORDER**

9.1 **No Action**

- 9.1.1 This is not a feasible alternative option given the urgent and compelling need to meet the third party connection request and re-align part of the Circuit 1 project as described elsewhere in this Statement of Reasons.

9.2 **Options appraisal**

Cut and Cover

- 9.2.1 In London, electricity has traditionally been transmitted through cables located just beneath the road surface, within the "street". For the Circuit 1 Project, using a "cut and cover" technique to run cables in the street would cause very significant traffic disruption across South London. This is aside from other effects from construction, including the noise associated with the process. This technique would be to simply dig a trench (in sections), lay the cable and back-fill the trench.
- 9.2.2 Maintenance and replacement of the assets would also be difficult, time consuming and costly because roads would need to be cut up again when maintenance or renewal is required.
- 9.2.3 In addition, there are technical constraints in using this process because of the inability to use forced-air ventilation to cool the cables and so there is a limit on cable ratings (i.e. the kV level that can be achieved).
- 9.2.4 The Cut and Cover technique also increases the risks of impacts and damage to apparatus of other Statutory Undertakers as the roads in South London are densely populated with varying apparatus.
- 9.2.5 This technique takes materially longer than other options because of the time required to cut up small sections of road and then move along the road.

Overhead Lines

- 9.2.6 The density of London's built environment means that an overhead line corridor does not exist and therefore this option is not feasible.
- 9.2.7 An overhead line option would be far more costly due to the impacts of sterilising land in London. This would also not be a viable option from a programming perspective as it would take a long time to construct and energise the system.

Tunnelling

- 9.2.8 The clear and compelling advantages of tunnelling over cut and cover are:
- (a) a more direct route can be followed below the ground with the need for fewer joints, making for a more efficient design;
 - (b) the impact on local traffic is much less in both the construction phase and any subsequent maintenance and renewal;
 - (c) protection, maintenance and renewal of the assets is easier in a tunnel;
 - (d) the construction of the tunnel does not carry as much risk of damaging the apparatus of other statutory undertakers as a cut and cover method;

- (e) noise and vibration arising from the tunnelling operation is imperceptible at the proposed depth; and
- (f) a higher cable rating can be achieved because of the ventilation techniques deployed for a tunnel solution.

9.2.9 The clear and compelling advantages of tunnelling over overhead lines are:

- (a) tunnelling avoids a visual impact that some may perceive as being harmful;
- (b) the limitations of routeing overhead lines in a dense urban environment where there are likely to be many taller buildings;
- (c) the impact on local traffic is much less in both the construction phase and any subsequent maintenance and renewal; and
- (d) protection, maintenance and renewal of the assets is easier in a tunnel.

9.2.10 Various tunnel routes were considered to re-align Circuit 1 beneath the LPN substation but the selected route is the most direct and there were no material dis-benefits that outweighed that benefit.

Adit Option

9.2.11 As mentioned elsewhere in this Statement of Reasons, there was an option to have two tunnel adits excavated from the LPN substation to connect with Circuit 1 beneath Coldharbour Lane. This would have run north-westerly from the site beneath two heritage assets and then beneath Vaughan Road into the tunnel. This would have created significant noise and traffic disturbance to neighbours because it would have required the tunnel adits to have been excavated from the LPN substation with the associated above ground activity that would have involved.

10 COMPELLING CASE IN THE PUBLIC INTEREST

10.1 Human Rights Implications

10.1.1 The Convention rights potentially applicable to the making of the Order are Articles 6, 8 and Article 1 of the First Protocol as contained in the Schedule to the Human Rights Act 1998. The position is summarised in paragraph 12 of Stage 2 of the Guidance.

10.1.2 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".

10.1.3 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 ..."

- 10.1.4 The Order has been made pursuant to Section 10 and Schedule 3 of the 1989 Act which authorises NGET to acquire new rights compulsorily subject to following the procedures laid down in the 1981 Act.
- 10.1.5 NGET considers that there is a compelling case in the public interest that the new rights referred to in the Order be acquired in order to achieve the purposes described in this Statement of Reasons. If the Secretary of State agrees with NGET that there is a compelling case in the public interest, he may confirm the Order. 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. In the circumstances, if the Order is confirmed, it is considered that the compulsory acquisition of the new rights referred to in the Order will not conflict with Article 1 of the First Protocol or Article 8 of the Convention as any interference with the rights will be in accordance with the law, justified and proportionate.
- 10.1.6 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."*
- 10.1.7 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.
- 10.1.8 NGET is satisfied that there are no planning or financial impediments to the implementation of Bengeworth Road Connection and that the Bengeworth Road Connection is therefore likely to proceed if the Order is confirmed.
- 10.1.9 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 Bengeworth Road Connection to enable LPT2 to connect with UKPN and to secure the replacement of the existing ageing oil filled cables and the upgrade of the cables.
- 10.2 **Equality Act 2010**
- 10.2.1 As a non-public body exercising public functions, NGET has a statutory duty under section 149 of the Equality Act 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.
- 10.2.2 The relevant protected characteristics are: age; disability; gender reassignment; pregnancy and maternity; race; religion or belief; sex; and sexual orientation.
- 10.2.3 NGET's use of the tunnelling method (as mentioned above) for the Bengeworth Road Connection 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.

- 10.2.4 As mentioned in Paragraph 5 above, NGET has undertaken extensive negotiation with landowners impacted by the Bengeworth Road Connection 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 the New Roads and Street Works Act 1991. Furthermore, NGET is using an above ground site that has been acquired voluntarily, such that this has minimised any disadvantages to those who share a relevant protected characteristic.
- 10.2.5 NGET has carried out extensive community consultation. Nothing arose from that consultation that caused NGET to become concerned that the Bengeworth Road Connection would have a disproportionate effect on any individuals or groups of individuals with protected characteristics.
- 10.2.6 In light of the above, NGET considers that it has given due regard to the public sector equality duty set out in s149 of the Equality Act 2010 in promoting this Order for the Bengeworth Road Connection.

Dated: 14 October 2021

**Bryan Cave Leighton Paisner LLP
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 The Compulsory Purchase Order dated 14 October 2021.
- 2 Map showing the route of the proposed tunnel.
- 3 Such other documents as NGET considers necessary to respond to any objections.