

# Permit with introductory note

## The Environmental Permitting (England & Wales) Regulations 2016

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**GridLink Interconnector Ltd.**

**The flood risk activities including:**

- the connection and operation of 2 subsea HVDC cables to the converter station, and
- the connection and operation of a 400kV HVAC cable system between the converter station and sub-station

**on the former Kingsnorth Power Station site.**

**National Grid Reference[s]: TQ8181372236**

**Site of the former Kingsnorth Power Station, Power Station Access Road, Hoo St Werburgh,  
Rochester ME3 9NQ**

**Permit number**

**EPR/XB3153LP**

# Introductory note

## This introductory note does not form a part of the permit

The main features of the permit are as follows. Please note this only includes activities that may take place within 16-metres of the toe of the existing flood defence. Permission is not required for the Joint Bay Installation activities.

1. Installation of two subsea Mass Impregnated (MI) High Voltage Direct Current (HVDC) cables under the existing flood defences, past the shoreline and the Medway Estuary and Marshes Special Protection Area (SPA) and Site of Special Scientific Interest (SSSI). This activity includes:
  - The Horizontal Directional Drilling (HDD) of the two 600-millimetre bores (for the HPDE ducts), approximately 9-metres below the sheet piles of the existing defences. The bores will be a minimum of 5-metres apart and approximately 700-metres long, 94-metres from the HDD entry pit to the sheet-piles of the flood defences and 600-metres from the flood defences across the intertidal mudflats
  - The duct installation where sections will be welded together and pushed through the bore by a pipe thruster or pulled through using a winch system on a jack-up barge
  - The cable pull-in from the sea to the land, where the length of HVDC cable is pulled through the duct using a messenger wire and shore-mounted winch.
  
2. Installation of a 1.5-kilometre long High Voltage Alternating Current (HVAC) cable system for the transferral of energy from the converter station to the 400kV sub-station. This activity includes:
  - The breaking out of the slab and hard standing along the cable route
  - The excavation and support of a trench, 1.5-kilometres long, 3-metres wide and 1.3-metres deep, by using appropriate excavators and manually digging. As the cables are installed in ducts, this will be done in sections up to 100-metres
  - The dewatering of any water in the excavation
  - The duct installation, where concrete is poured and levelled in the base of the excavation, then the 3 HPDE ducts are placed in the excavation and set in more concrete that is poured to cover the ducts by 100-millimetres
  - The pulling of the wires through the ducts using a pull rope or wire
  - The like-for-like trench reinstatement by backfilling and compacting of the excavated material and reinstatement of surfaces and facilities

The status log of the permit does not form part of the permit. It sets out the permitting history, including changes to the permit or permit reference number.

Status log of the permit		
Description	Date	Comments
Application EPR/XB3153LP	Duly made 09/02/21	Application for the flood risk activities including: <ul style="list-style-type: none"><li>• the connection and operation of 2 subsea HVDC cables to the converter station, and</li><li>• the connection and operation of a 400kV HVAC cable system between the converter station and sub-station</li></ul> on the former Kingsnorth Power Station site.
Permit determined EPR/XB3153LP	23/06/21	Permit issued to GridLink Interconnector Ltd.

End of introductory note

# Permit

## The Environmental Permitting (England and Wales) Regulations 2016

### Permit number

**EPR/XB3153LP**

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016

### **GridLink Interconnector Ltd.**

whose registered office is

GridLink Interconnector Ltd,  
25 East Street,  
Bromley,  
BR1 1QE

Company registration number: 10181689

to operate the following flood risk activities:


1. Installation of two subsea Mass Impregnated (MI) High Voltage Direct Current (HVDC) cables under the existing flood defences, past the shoreline and the Medway Estuary and Marshes Special Protection Area (SPA) and Site of Special Scientific Interest (SSSI). This activity includes:
  - The Horizontal Directional Drilling (HDD) of the two 600-millimetre bores (for the HPDE ducts), approximately 9-metres below the sheet piles of the existing defences. The bores will be a minimum of 5-metres apart and approximately 700-metres long, 94-metres from the HDD entry pit to the sheet-piles of the flood defences and 600-metres from the flood defences across the intertidal mudflats
  - The duct installation where sections will be welded together and pushed through the bore by a pipe thruster or pulled through using a winch system on a jack-up barge
  - The cable pull-in from the sea to the land, where the length of HVDC cable is pulled through the duct using a messenger wire and shore-mounted winch.
  
2. Installation of a 1.5-kilometre long High Voltage Alternating Current (HVAC) cable system for the transferral of energy from the converter station to the 400kV sub-station. This activity includes:
  - The breaking out of the slab and hard standing along the cable route
  - The excavation and support of a trench, 1.5-kilometres long, 3-metres wide and 1.3-metres deep, by using appropriate excavators and manually digging. As the cables are installed in ducts, this will be done in sections up to 100-metres
  - The dewatering of any water in the excavation
  - The duct installation, where concrete is poured and levelled in the base of the excavation, then the 3 HPDE ducts are placed in the excavation and set in more concrete that is poured to cover the ducts by 100-millimetres
  - The pulling of the wires through the ducts using a pull rope or wire
  - The like-for-like trench reinstatement by backfilling and compacting of the excavated material and reinstatement of surfaces and facilities

at

The site of the former Kingsnorth Power Station, Power Station Access Road, Hoo St. Werburgh, Rochester ME3 9NQ

**National Grid Reference(s): TQ8181372236**

to the extent authorised by and subject to the conditions of this permit.

Name	Date
 <b>Simon Curd</b> <b>Team Leader</b> <b>Partnership &amp; Strategic Overview (PSO) West Kent</b> <b>Kent and South London</b>	<b>23/06/2021</b>

**Authorised on behalf of the Environment Agency**

# Conditions

## 1 Management

### 1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of flooding, impact on drainage and environmental harm so far as is reasonably practicable, including those risks arising from operations, maintenance, accidents, incidents, non-conformances and those drawn to the attention of the operator as a result of complaints; and
  - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of the permit.

## 2 Operations

### 2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).

### 2.2 The site

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 2 to this permit.

### 2.3 Operating techniques

- 2.3.1 The operator shall use appropriate measures, including but not limited to those in the approved Method of Work.
- (a) to minimise sediment mobilisation
  - (b) to minimise impact on biodiversity
  - (c) to ensure there is no increase to flood risk or detrimental impact on drainage;
  - (d) for the storage and disposal of waste produced; and
  - (e) to prevent and minimise environmental harm.
- 2.3.2 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.
- 2.3.3 Measures shall be taken to ensure that the activities do not cause the spread of invasive non-native species or plant or animal diseases.
- 2.3.4 Measures shall be taken to ensure there is sufficient separation between the works and existing defences so that their current structural integrity remains intact and so that they can be upgraded by the Environment Agency in the future.

- 2.3.5 Measures shall be taken to ensure the suitable abstraction and discharging of water into the watercourse.
- 2.3.6 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.

## **2.4 Access by the Environment Agency**

- 2.4.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, ensure that the Environment Agency has unimpeded access to the Kingsnorth Power Station Medway Frontage flood defence in the manner and at the times set out in Schedule 1 table S1.5.

## 3 Information

### 3.1 Records

3.1.1 All records required to be made by this permit shall:

- (a) be legible;
- (b) be made as soon as reasonably practicable;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
  - (i) records relating to conditions for the ongoing operation or maintenance of a structure;
  - (ii) records relating to the continuing access of the Environment Agency to the watercourse or to works or structures it operates;
  - (iii) matters which affect the condition of the land.

3.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

### 3.2 Reporting

3.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

### 3.3 Notifications

3.3.1 The Environment Agency shall be notified no less than 7 days before the commencement of each individual activity, being the installation of the subsea HVDC cables (1) and the HVAC cables (2). You are not required to notify us before the commencement of each individual activity under these 2 major works.

3.3.2 Environment Agency shall be notified no less than 7 days after the completion of each individual activity, being the installation of the subsea HVDC cables (1) and the HVAC cables (2). You are not required to notify us after the completion of each individual activity under these 2 major works.

3.3.3 The Environment Agency shall be notified without delay following the detection of any breach of a limit specified in the permit or any significant environmental effects resulting from the activities or of any breach of the permit.

3.3.4 Written confirmation of actual or potential incidents or effects and breaches referred to in 3.3.3 shall be submitted within 24 hours.

3.3.5 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and

(b) any steps taken with a view to the dissolution of the operator.

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

3.3.6 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for flood risk, drainage or the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

### **3.4 Interpretation**

3.4.1 In this permit the expressions listed in schedule 3 shall have the meaning given in that schedule.

3.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "without delay", in which case it may be provided by telephone.

3.4.3 Any reference to a distance of a number of metres from a flood defence structure, drainage work, remote defence or sea defence is a reference to that distance as measured from the foot of the foregoing as the case may be.

3.4.4 Any reference to a distance of a number of metres from a river control work is a reference to that distance as measured from the nearest part of the river control work.

3.4.5 Any reference to a distance of a number of metres from a watercourse is a reference to that distance as measured horizontally from the foot of the bank on the landward side of the watercourse



# Schedule 1 – Operations

Table S1.1 Activities		
Activity reference	Description of activities	Limits of activities
	<b>Permanent Works</b>	
P1	The operation of 2 x subsea MI HVDC cables under the existing flood defences, past the shoreline and the Medway Estuary and Marshes Special Protection Area (SPA) and Site of Special Scientific Interest (SSSI).	<p>The activity shall be commenced within 2 years of the date of the grant of the permit and completed within 3 years of commencement.</p> <p>The activities shall be carried out in accordance with:</p> <ul style="list-style-type: none"> <li>• The 'GridLink Part B10 Flood Risk Activities Form' application form dated 25/01/2021</li> <li>• The 'Landfall UK Kingsnorth HDD Cross Section at Flood Defence' section drawing reference '1311-A-009',</li> <li>• The 'METHOD STATEMENT FOR SUBSEA CABLE SHORE CROSSING AT KINGSNORTH', dated January 2021</li> <li>• And the letters in response to the requests for further information, from GridLink Interconnector Ltd, dated 08/04/2021 and 07/06/2021.</li> </ul> <p>The activities shall not be carried out, nor any materials deposited, within 8-metres of the sheet pile cut-off on the existing flood defence (the Kingsnorth Power Station Medway Frontage) – detailed in the letter dated 07/06/2021.</p>
P2	The operation of a 1.5-kilometre HVAC cable system, transferring energy from the converter station to the 400kV sub-station. Works for this activity are only likely to come within 16-metres of the existing flood defence at 1 location, named KP0.87.	<p>The activity shall be commenced within 2 years of the date of the grant of the permit and completed within 3 years of commencement.</p> <p>The activities shall be carried out in accordance with:</p> <ul style="list-style-type: none"> <li>• The 'GridLink Part B10 Flood Risk Activities Form' application form dated 25/01/2021</li> <li>• The 'Underground HVAC Cable UK' plan drawings, Sheets 3 – 9, refs 1311-EPC-1-003 to 1311-EPC-1-009</li> <li>• The 'Underground HVAC Cable UK' cross section drawings, refs 1311-EPC-1-012 to 1311-EPC-1-014</li> <li>• The 'METHOD STATEMENT FOR UNDERGROUND CABLE</li> </ul>

Table S1.1 Activities		
Activity reference	Description of activities	Limits of activities
		<p>TRENCHING AT KINGSNORTH', dated January 2021</p> <ul style="list-style-type: none"> <li>• And the letter in response to the request for further information, from GridLink Interconnector Ltd, dated 08/04/2021.</li> </ul>
<b>Temporary or enabling works</b>		
T1	<p>The installation of 2 x subsea MI HVDC cables under the existing flood defences, past the shoreline and the Medway Estuary and Marshes Special Protection Area (SPA) and Site of Special Scientific Interest (SSSI). This will be done by HDD, either from the land or water end of the bore. Ducting will be installed from the land side of the excavation and then the cables will be installed from the water end of the bore, using a winch at the HDD entry pit and a guide cable.</p>	<p>The activity shall be commenced within 2 years of the date of the grant of the permit and completed within 3 years of commencement.</p> <p>There shall be a clearance of 7m between the centreline of the HDD and the lowest cut-off point (-7m OD) of the existing defences.</p> <p>The activities shall be carried out in accordance with:</p> <ul style="list-style-type: none"> <li>• The 'GridLink Part B10 Flood Risk Activities Form' application form dated 25/01/2021</li> <li>• The letter in response to the request for further information, from GridLink Interconnector Ltd, dated 08/04/2021.</li> <li>• The 'Underground HVAC Cable UK' cross section drawings, refs 1311-EPC-1-012 to 1311-EPC-1-014</li> <li>• The 'METHOD STATEMENT FOR SUBSEA CABLE SHORE CROSSING AT KINGSNORTH', dated January 2021</li> </ul>
T2	<p>The construction of a 1.5-kilometre HVAC cable system, transferring energy from the converter station to the 400kV sub-station. Works for this activity are only likely to come within 16-metres of the existing flood defence at 1 location, named KP0.87. Works including excavations, dewatering and abstraction, ducting and concreting, backfilling and levelling.</p>	<p>The activity shall be commenced within 2 years of the date of the grant of the permit and completed within 3 years of commencement.</p> <p>At KP0.87, the edge of the cable trench will be 11.5-metres away from the toe of the defences and the boundary of all construction works will be at least 8-metres away from the toe of the defence.</p> <p>The activities shall be carried out in accordance with:</p> <ul style="list-style-type: none"> <li>• The 'GridLink Part B10 Flood Risk Activities Form' application form dated 25/01/2021</li> <li>• The letter in response to the request for further information, from</li> </ul>

Table S1.1 Activities		
Activity reference	Description of activities	Limits of activities
		<p>GridLink Interconnector Ltd, dated 08/04/2021.</p> <ul style="list-style-type: none"> <li>The 'METHOD STATEMENT FOR UNDERGROUND CABLE TRENCHING AT KINGSNORTH', dated January 2021</li> <li>The 'Underground HVAC Cable UK' plan drawings, Sheets 3 – 9, refs 1311-EPC-1-003 to 1311-EPC-1-009</li> </ul>

Table S1.2 Operating techniques			
Requirement	Measures (if measures are specified)	Document reference	Date Received
Condition 2.3.1	Approved Method of Works Statements	<p>Method Statement for Subsea Cable Shore Crossing at Kingsnorth (prepared by GridLink Interconnector Ltd., dated January 2021)</p> <p>Method Statement for Underground Cable Trenching at Kingsnorth (prepared by GridLink Interconnector Ltd., dated January 2021)</p> <p>GridLink Interconnector Ecology Report Volume 1 – Ecological Impact Assessment (produced by AECOM, dated October 2020)</p> <p>GridLink Interconnector Ecology Report Volume 2 – Ecological Impact Assessment (produced by AECOM, dated October 2020)</p>	25/01/21
Condition 2.3.1(c)	<p>The clearance depth of the HDD under the defences and appropriate standoff distances for the works will be determined in consultation with the Environment Agency – this has been done.</p> <p>SuDS will be constructed first, if reasonably possible to reduce surface water runoff</p> <p>Groundwater and stormwater collected from construction excavations shall be only discharged to watercourses in accordance with the planning permission and discharge permits granted for the works; if discharge is not permitted, the water will be collected in</p>	GridLink Interconnector Flood Risk Assessment, produced by AECOM, dated October 2020.	25/01/21

	<p>a contained system and removed off-site for disposal at an appropriately licensed discharge point or site.</p> <p>The contractor will sign up to the EA's Flood Warning Service.</p> <p>A flood warning and response plan will be developed.</p>		
Condition 2.3.4	<p><u>HDD</u></p> <p>The HDD profile has been amended to provide a clearance of 7-metres below the cut-off level of the sheet pile wall flood defences.</p> <p>The HDD centreline is planned to be at -16mOD at the location of the existing sheet piles, which provides approximately 9-metres clearance between the HDD and existing sheet pile cut-off at -7m OD. There is not 'safety zone' around the HDD at this level.</p> <p>This clearance will be more than the nominal 5-metres clearance.</p> <p><u>Trenched cabling</u></p> <p>The revised cable route centreline is a minimum of 25-metres from the toe of the flood defence, except at two short sections: 22-metres separation at KP0.44 and 13-metres separation at KP0.87 – we are only concerned with the section at KP0.87 as this is within 16-metres of the toe of the defences.</p> <p>At KP0.87, the edge of the cable trench will be 11.5-metres away from the toe of the defences and the boundary of all construction works will be at least 8-metres away from the toe of the defence.</p>	<p>Letters in response to Requests for More Information, from GridLink Interconnector Ltd. – dated 08/05/21 and 07/06/2021</p> <p>The 'Underground HVAC Cable UK' plan drawings, Sheets 3 – 9, refs 1311-EPC-1-003 to 1311-EPC-1-009</p> <p>The 'Underground HVAC Cable UK' cross section drawings, refs 1311-EPC-1-012 to 1311-EPC-1-014</p>	08/05/21 and 07/06/2021
Condition 2.3.5	<p>The abstractions for each works will be over a period of 6-months.</p> <p>The abstraction is within the industrial site of the former Kingsnorth Power Station site so it does not cause or is not likely to cause damage to a conservation site or specific features in such a site or protected species.</p> <p>Since there is a conservation site within 500-metres, the abstracted water will be less than 50-cubic-metres of water per day and there will be no intervening use of that water before discharge.</p>	<p>Letter in response to Requests for More Information, from GridLink Interconnector Ltd. – dated 08/05/21</p>	08/05/21

	<p>The abstracted water will be either discharged to the River Medway using the existing Eastern Penstock of the former Kingsnorth Power Station site in accordance with the provisions above or removed from the worksite by road tanker for off-site disposal.</p> <p>The works will fall under the exemption available in The Water Abstraction and Impounding (Exemptions) Regulations 2017, Part 2 Exemptions from restriction on abstraction.</p>		
To address condition 2.3.2	<p>All hazardous materials, oils, fuels and other potentially polluting materials shall be stored with spill containment provided by double-skinned storage tanks/containers or secondary impermeable bunds enclosing storage areas.</p> <p>Secondary containment shall hold 100% of the volume of the stored material.</p>	Method Statement for Subsea Cable Shore Crossing at Kingsnorth (prepared by GridLink Interconnector Ltd., dated January 2021)	25/01/21

## Operation, maintenance and access

### Access by the Environment Agency

Table S1.5 Access by the Environment Agency	
Description of watercourse, works or structure for which access required	Required access
Kingsnorth Power Station Medway Frontage	The Environment Agency will contact the developers if access is required and dates, times and works will be agreed.

# Schedule 2 – Site Plan



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## Schedule 3 – Interpretation

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“main river” means a watercourse or part of a watercourse designated as main river on the statutory main river map held by the Environment Agency.

“Method of Work” means a document forming part of the operator’s management system, setting out the working methods for carrying out the activity and what measures will be taken to avoid or minimise the risks of environmental effects.

“approved Method of Work” means the operator’s Method of Work approved by the Environment Agency

“environmental effects” means:

- (a) flooding or risk of flooding;
- (b) harm to the environment or risk of harm to the environment; and
- (c) detrimental impact on drainage or risk of detrimental impact on drainage.

“environmental harm” means a result of human activity which may:

- (a) cause harm to the conservation, protection and enhancement of any species and habitats designated under any enactment as having special protection or priority;
- (b) prevent the achievement of environmental objectives within the meaning of the Water Framework Directive 2000/60/EC;
- (c) cause pollution; or
- (d) otherwise adversely affect the protection and enhancement of the environment.

END OF PERMIT