

Environmental and Social Data Sheet

Overview

Project Name:	<i>NATIONAL GRID NETWORKS UPGRADE</i>
Project Number:	<i>20110002</i>
Country:	<i>UK</i>
Project Description:	An investment programme consisting of several electricity transmission sub-projects geographically dispersed across Great Britain. The programme includes the Western HVDC subsea link which connects the electricity transmission network of Scotland with England and Wales across the Irish Sea. The link will have a capacity of 2,250 MW and a route length of circa 420 km. The remainder of the programme comprises the upgrading, reconductoring and refurbishment of 300 km of overhead routes, the laying of 100 km of new underground circuits, the installation of 81 new substation bays and 27 new transformers, and the refurbishment of 90 substation bays. The main purpose of the programme is to reinforce the network in response to demand and generation changes, to replace or refurbish aging assets and to improve network resilience to security and climate risks.

EIA required: Yes for the following sub-projects:

- Reconductoring and voltage uprate of the OHL Waltham Cross-Tottenham (also known as North London Reinforcement Project);
- Reconductoring, voltage uprate and partial reconstruction of the OHL Lackenby-Saltholme-Tod Point;
- Highbury substation;
- Rhigos substation;
- Hedon substation (part of Humber Gateway offshore wind park EIA);
- Necton substation (as part of Dudgeon offshore wind park EIA).

Project included in Carbon Footprint Exercise¹: no

Summary of Environmental and Social Assessment, including key issues and overall conclusion and recommendation

Some sub-projects fall under Annex II of the EIA Directive 2011/92/EU. According to the screening criteria set out in the Electricity Works EIA Regulations, six sub-projects have undergone a full Environmental Impact Assessment process, including an Appropriate Assessment, where required. Development consent and planning permission is still outstanding for the OHL Waltham Cross-Tottenham and Highbury substation. Planning permission for Highbury substation is expected to be granted shortly, while a development consent for the OHL Waltham Cross-Tottenham is expected in April 2014. The assessment of two substations, at Hedon and Necton, has been made as part of the wider assessment conducted for offshore wind farm developments. In the case of several other sub-projects, including the Western HVDC link, the promoter has conducted extensive Environmental Reports, including an Appropriate Assessment, where required, to support applications for planning permission and marine license.

The environmental impact analyses carried out, along with the conclusions of the planning permissions, indicate that, subject to the implementation of specified mitigating measures, the programme would neither have significant adverse effects on the environment nor adversely affect the integrity of any European site in view of the site's conservation objectives. One sub-

¹ Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 100,000 tons CO₂e/year absolute (gross) or 20,000 tons CO₂e/year relative (net) – both increases and savings.

project seeks to reduce the risk of flooding to a number of substations, including from anticipated climate change.

The promoter is judged to have a solid experience in application of environmental legislation, and is certified under ISO-14001 for environmental management. Moreover, in many cases it goes beyond formal UK or EU legal requirements, reflecting its transmission licence agreement and Section 38 of the Electricity Act (1989) to “ have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographic features of special interest...”. This is set out in the promoter’s Stakeholder, Community and Amenity Policy which sets out 10 commitments to consultation and the environment, including (i) minimising the effects of new infrastructure on the environment; (ii) mitigating adverse effects; (iii) offsetting where mitigation is not possible; and (iv) enhancing the environment around works.

Finally, given a significant portion of the sub-projects contained within the overall programme serve to facilitate the efficient transmission of new renewable generation, and thus allow the UK to meet its 2020 renewable energy targets, the programme is expected to contribute substantially towards reducing greenhouse gas emissions.

The project has not been the subject of a Strategic Environmental Assessment.

In light of these factors, the programme is therefore acceptable to the Bank in environmental terms.

In the Finance Contract disbursement against the reconductoring/uprating of the OHL Waltham Cross-Tottenham will be subject to the evidence, satisfactory to the Bank, that the corresponding development consent has been granted. Similarly disbursement against Highbury substation will be subject to the evidence, satisfactory to the Bank, that the corresponding full planning permission has been granted.

Additionally, disbursements against the extensions of Creyke Beck and Killingholme substations will be subject to the issue of the development consent for the associated off-shore wind developments Dogger Bank and Hornsea in line with EU laws, in particular ensuring that there is no pre-mature predetermination of likely connection routes for the windfarms before the assessment processes under Directives 2011/92/EU (EIA) and 92/43/EEC (Habitats) are completed and taking into account European Commission concerns about the lack of Natura 2000 designations in offshore areas under the latter Directive and Directive 2009/147/EC (Wild Birds). It must be noted in this context that the Commission has formally raised concerns about the failure by the UK to designate sites for harbour porpoise in its waters under the Habitats Directive and some of the sites which the Commission considers should be designated are implicated in Dogger Bank and Hornsea off-shore wind developments

Environmental and Social Assessment

Environmental Assessment

Design phase

Social and environmental considerations have been incorporated in the design of the sub-projects from the earliest stages. Substations locations have been selected to minimise proximity and crossing of human settlements, sensitive areas, and hydrogeological risk areas. The Western HVDC uses a marine cable rather than overhead lines. Power cables in London are being installed in tunnels to avoid heavy traffic disruption associated with direct burial works.

A number of support measures will be implemented to improve the social acceptance of the sub-projects. In the case of a new substation within a densely-populated part of London, this has involved adapting the site to incorporate residential and commercial units, using the basement to reduce visual amenity, adding green biodiversity roofs and supplying waste heat to a local primary school.

Construction

No significant impacts have been identified, based on implementation of identified mitigation measures. For example, potential impact during the construction phase on SPA-qualifying species close to the HVDC at the Northern Converter Station and the OHL Lackenby-Saltholme-Tod Point has been mitigated by scheduling construction to avoid sensitive periods of the year. In densely populated areas, particular attention will be paid to contain the effect of noise, vibrations and traffic disruption during the construction works.

Operation

Potential leakage of SF6 – a potent greenhouse gas – is minimised through special maintenance procedures. Contamination from oil leakage is mitigated through appropriately designed bunds. All lines and equipment will operate strictly within national EMF regulations.

Public Consultation and Stakeholder Engagement

Sub-projects, for which EIA was carried out, were subject to a full and appropriate public consultation procedure. Statutory and non-statutory bodies, local communities and other stakeholder have been consulted also during the key phases of some non-EIA sub-projects, notably as regards the Western HVDC.