

Report to Area Plans Sub-Committee West



**Epping Forest
District Council**

Date of meeting: 7 November 2012

Subject:

Proposed National Grid (North London Reinforcement Project) running between Waltham Cross and Tottenham substations – Application for a Development Consent Order to the Planning Inspectorate (Ref: EN020009) to upgrade overhead power lines from 275kV to 400kV, including an extension to the substation at Waltham Cross to provide a new 400kV Gas Insulated Switch Gear (GIS) substation, one new and two replacement pylons.

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Committee Secretary: Adrian Hendry (ext.4246)

Recommendation:

- (1) That the Committee consider the Council's response to the current consultation on an application for a Development Consent Order for the proposed North London Reinforcement Project; and**
- (2) That the Director of Planning and Economic Development be authorised to submit a response of No Objection but express disappointment that part of what appears to be redundant hard surfaced area in the decommissioned existing substation area is remaining when there is an opportunity here to provide planting and thereby reduce the overall footprint of the proposed substation area.**

Report Detail:

Introduction

National Grid has made an application for a Development Consent Order (DCO) to the Secretary of State to upgrade one of two existing 275kV overhead power lines running between Waltham Cross (in Epping Forest District) and Tottenham substations (via Brimsdown substations) to operate at a higher voltage (400kV). This covers an overhead electricity line of about 14 km in length. National Grid has signed a number of contracts to connect new sources of low carbon electricity generation connecting onshore and offshore (wind farms). The upgrade is required to facilitate the increased flow of electricity into and through London and meet its growing demand for power.

The project is defined as a "Nationally Significant Infrastructure Project" (NSIP). Such projects are not decided by the local planning authority, but by The Secretary of State via The Planning Inspectorate's National Infrastructure Project under the Planning Act 2008, who, after consultation and assessment, decide whether to issue a Development Consent Order (DCO's).

Pre-application was carried out in two phases of consultation to which Officers have generally not raised an objection.

Local Authorities in whose areas applications for NSIP's are submitted are invited to produce a Local Impact Report (LIR). The Planning Act 2008 requires that the Examination Authority (and Secretary of State) must have regard to the LIR in determining applications for DCO's. However, before this is produced, there is a current public consultation running between 3 October and 12 November 2012 in which comments can be made direct to the Planning Inspectorate.

Location

The overhead line extends from the substation known as "Waltham Cross" in Epping Forest District to Tottenham substation in the London Borough of Haringey, with its pylons following the Lee Valley Regional Park, across lakes, through marshes and through recreational open space. The existing "Waltham Cross" substation lies between Seventy Acres Lake and Holyfield Lake within the Lee Valley Recreational Park, at Fishers Green, north of Waltham Abbey. Part of the path network in the park runs past the substation.

Details of the Proposal in Epping Forest District

The changes to the pylons will require the existing wires to be removed and replaced with ones of a higher capacity but of a similar diameter. These works will principally utilise the existing pylons with a few minor changes to the design of their insulators. Access to all pylons is required and replacement of wires is carried out by winching from tension pylons, representing the main construction sites along the route. It is scheduled to take place during 2015 and 2016.

A new substation building (Gas Insulated Switchgear station - GIS) will extend the existing substation in a slightly new position immediately north of the existing site to provide a new 400kV power substation. The area of the new substation is currently covered with existing mature vegetation and land will need to be acquired from the Lee Valley Regional Park Authority. The eastern part of the existing substation will be decommissioned and its equipment removed, although it appears the existing hard surfaced area will be retained. The GIS building will consist of a steel portal building measuring approximately 70m x 15m x 13m clad in green finished steel profiled sheeting above a darker green 2.4m cement fibre board. It will be of a mono-pitched roof design. A number of smaller ancillary prefabricated buildings will be dark green. A 2.4m green high palisade fence will surround the new and existing substation area. Any external lighting will be designed to minimise visual intrusion.

Some 2395 square metres is to be acquired here permanently from the Lee Valley Regional Park Authority ("LVRPA") for the substation extension. Another open grassed area of 22500 square metres is to be possessed temporarily from LVRPA, south of here, off Stubbins Hall Lane for use as a laydown area for materials storage, site cabins and construction vehicle parking.

To connect the overhead line to the new substation, two pylons will be replaced in different positions and one additional pylon will be built. The construction of the new substation and the decommissioning of part of the existing equipment would take approximately 3 years to complete but scheduled to be operational by autumn 2016. Numerous measures would be put in place to minimise the effects of the construction works on the Lee Valley Regional Park and its users.

National Policy Context

To deal with NSIP's, the Secretary of State must decide the application in accordance with any relevant national policy statement unless, among other matters, the adverse impact of the development would outweigh its benefits. National Policy Statement EN-1 states that, along with the relevant technological specific NPS, EN-1 is the primary basis for decisions and should start with the presumption in favour of granting consent to applications for energy NSIPs. National Policy Statement for Electricity Networks Infrastructure (EN-5) contains policies which support projects that reflect the need to achieve energy security.

Local Policy Context – Epping Forest

The Waltham Cross substation is located within the Green Belt and the Lee Valley Regional Park. The following policies from the Local Plan are therefore relevant:

- CP3 - expects the scale and nature of new development to be consistent with the principles of sustainability and respect the character and environment of the locality.
- GB2A - Development in the Green Belt
- NC1 - Development directly or indirectly affecting Special Areas (SSSI's, SPA's or SAC's). The substation is adjacent a local Wildlife Site.
- NC2 - County Wildlife Sites
- DBE1- buildings to respect their setting.

National Grid's case for The Proposed Development

There is a predicted increase demand in the Greater London region, which must be provided for and therefore there is a need to provide for increased power flow into London. To facilitate this increased flow of power it is necessary to uprate the existing overhead lines from Waltham Abbey through North London to carry an increased voltage and to upgrade the existing substations. This is known as North London Reinforcement Project.

Planning Issues affecting Epping Forest District Council

There was two phases of consultation in 2011 and 2012 prior to the submission of this application. National Grid identified two options for the additional substation: either an air insulated switchgear (AIS) substation option (as at present) or a gas insulated switchgear (GIS) substation option.

The AIS required more space and land as it uses air to insulate the equipment, which includes circuit breakers and disconnectors (switchgear). However, it has less visual impact due to its lower profile and open design.

The GIS requires less land and most of its equipment can be housed in a single enclosed building. It is therefore more solid appearance and taller.

They both require relocation of some existing pylons to enable the overhead line to access the new substation. Both Epping Forest District and the Lee Valley Regional Authority preferred the chosen GIS option because of the less land take-up and subject to the structure being a green finish so as to be in keeping with its surroundings. There are no local residential properties affected by the development. The GIS is the option going forward.

Biodiversity

The position of the substation will result in the loss of 4% of semi-natural habitats within the 114ha Lee Valley South Local Wildlife Site, mainly wet woodland/scrub. The land take will result in loss of trees and it has been recognised that these include those with bat roost potential and nesting opportunities for breeding birds among other impact on habitats such as reptiles. This effect will however, be compensated for through the provision of a number of measures within and adjacent to the Local Wildlife Site. An Ecological Management Strategy (EMS) would be produced prior to the start of construction and proposes mitigation measures such as a building to support roosting bats, bat boxes, 40 nesting bird boxes and kingfisher nesting bank constructed on the island on Seventy Acres lake. In addition, National Grid will provide a sum of £85,000 to fund local nature conservation projects for established organisations within 1km of the proposed working area. of the development.

The Council's Countryside Manager raises no objection given this compensatory biodiversity additions.

Landscape

The construction of an area of hard standing and the GIS building with its associated infrastructure will involve the removal of approximately 4.5 ha of relatively recently established broadleaved semi-natural woodland. A smaller area will be reinstated afterwards. The trees are of mixed species category B type of poor to fair growth and moderate quality, not protected by TPO's. There will be landscape change here noticeable from the footpath of this part of the Lee Valley Walk although long term impact in the area will not be significant. The GIS building will otherwise be screened by retained woodland vegetation. The nearest retained trees will be protected during construction work. Accepting the national important significance of the proposed development, officers raise no objection.

Noise

The two existing transformers (which are the main source of noise) will be removed and not replaced. The GIS building will generate minimal noise and the substation is remote from residential properties - the nearest being Holyfield Hall Farm, over 500m away. Therefore there will be an overall reduction in noise from the site.

Overhead lines are designed to operate quietly in dry weather conditions and will be inaudible above background noise levels at the quietest times. All 400kV lines can produce audible noise under wet weather conditions due to the presence of water droplets on the wire. The technical data demonstrates that this will be difficult to perceive or are not likely to be significant where residential properties are within 60m of a line, none of which include residential properties in Epping Forest District.

All 400kV overhead transmission lines can produce audible noise under wet weather conditions due to physical processes resulting from the presence of water droplets on the surface of the wire. However, operational noise effects are not likely to be significant.

Summary

Power supply to the London area is predicted to increase and to facilitate this it is necessary to upgrade existing overhead lines and upgrade the existing substations. The "Waltham Cross" station between Seventy Acres Lake and Holyfield Lake off Stubbins Hall Lane is within the Lee Valley Regional Park LVRP) and the Green Belt. The decommissioning of this substation and the construction of the new GIS substation will take 3 years to complete and measures would be put in place to minimise the effects of the construction work on the users of the LVRP. There will be

loss of vegetation and trees and some adverse impact on the local wildlife site. This is outweighed though by biodiversity offsetting measures and some replacement tree planting.

There is though disappointment that part of what appears to be redundant hard surfaced area in the decommissioned existing substation area is remaining when there is an opportunity here to provide planting and thereby reduce the overall footprint of the substation area. The Council's response to the Planning Inspectorate should reflect this concern, but otherwise accepts that the overall need to secure and increase the supply of electricity into London.