

Future Merton
London Borough of Merton
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Dear Sir / Madam

**London Borough of Merton: Draft Sites and Policies Development Plan Document
SUBMISSION ON BEHALF OF NATIONAL GRID**

National Grid has appointed AMEC to review and respond to development plan consultations on its behalf. We are instructed by our client to submit the following representation with regards to the current consultation on the above document.

Overview – National Grid

National Grid is a leading international energy infrastructure business. In the UK National Grid's business includes electricity and gas transmission networks and gas distribution networks as described below.

Electricity Transmission

National Grid, as the holder of a licence to transmit electricity under the Electricity Act 1989, has a statutory duty to develop and maintain an efficient, co-ordinated and economical transmission system of electricity and to facilitate competition in the supply and generation of electricity.

National Grid operates the national electricity transmission network across Great Britain and owns and maintains the network in England and Wales, providing electricity supplies from generating stations to local distribution companies. We do not distribute electricity to individual premises ourselves, but our role in the wholesale market is key to ensuring a reliable and quality supply to all. National Grid's high voltage electricity system, which operates at 400,000 and 275,000 volts, is made up of approximately 22,000 pylons with an overhead line route length of 4,500 miles, 420 miles of underground cable and 337 substations. Separate regional companies own and operate the electricity distribution networks that comprise overhead lines and cables at 132,000 volts and below. It is the role of these local distribution companies to distribute electricity to homes and businesses.

To facilitate competition in the supply and generation of electricity, National Grid must offer a connection to any proposed generator, major industry or distribution network operator who wishes to generate electricity or requires a high voltage electricity supply. Often proposals for new electricity projects involve transmission reinforcements remote from the generating site, such as new overhead lines or new development at substations. If there are significant demand increases across a local distribution electricity network area then the local network distribution operator may seek reinforcements at an existing substation or a new grid supply point. In addition National Grid may undertake development works at its existing substations to meet changing patterns of generation and supply.

Gas Transmission

National Grid owns and operates the high pressure gas transmission system in England, Scotland and Wales that consists of approximately 4,300 miles of pipelines and 26 compressor stations connecting to 8 distribution networks. National Grid has a duty to develop and maintain an efficient co-ordinated and economical transmission system for the conveyance of gas and respond to requests for new gas supplies in certain circumstances.

New gas transmission infrastructure developments (pipelines and associated installations) are periodically required to meet increases in demand and changes in patterns of supply. Developments to our network are as a result of specific connection requests e.g. power stations, and requests for additional capacity on our network from gas shippers. Generally network developments to provide supplies to the local gas distribution network are as a result of overall demand growth in a region rather than site specific developments.

Gas Distribution

National Grid also owns and operates approximately 82,000 miles of lower-pressure distribution gas mains in the north west of England, the west Midlands, east of England and north London - almost half of Britain's gas distribution network, delivering gas to around 11 million homes, offices and factories. National Grid does not supply gas, but provides the networks through which it flows. Reinforcements and developments of our local distribution network generally are as a result of overall demand growth in a region rather than site specific developments. A competitive market operates for the connection of new developments.

National Grid and Local Development Plan Documents

The Energy White Paper makes clear that UK energy systems will undergo a significant change over the next 20 years. To meet the goals of the white paper it will be necessary to revise and update much of the UK's energy infrastructure during this period. There will be a requirement for:

- an expansion of national infrastructure (e.g. overhead power lines, underground cables, extending substations, new gas pipelines and associated installations); and
- new forms of infrastructure (e.g. smaller scale distributed generation, gas storage sites).

Our gas and electricity infrastructure is sited across the country and many stakeholders and communities have an interest in our activities. We believe our long-term success is based on having a constructive and sustainable relationship with our stakeholders. Our transmission pipelines and overhead lines were originally routed in consultation with local planning authorities and designed to avoid major development areas but since installation much development may have taken place near our routes.

We therefore wish to be involved in the preparation, alteration and review of Development Plan Documents (DPDs) which may affect our assets including policies and plans relating to the following issues:

- any policies relating to overhead transmission lines, underground cables or gas pipeline installations;
- site specific allocations/land use policies affecting sites crossed by overhead lines, underground cables or gas transmission pipelines;
- land use policies/development proposed adjacent to existing high voltage electricity substation sites and gas above ground installations;
- any policies relating to the diverting or undergrounding of overhead transmission lines;
- other policies relating to infrastructure or utility provision;
- policies relating to development in the countryside;
- landscape policies; and
- waste and mineral plans.

In addition, we also want to be consulted by developers and local authorities on planning applications, which may affect our assets and are happy to provide pre-application advice. Our aim in this is to ensure that the safe and secure transportation of electricity and gas is not compromised.

National Grid infrastructure within London Borough of Merton's administrative area

Electricity Transmission

National Grid's high voltage electricity overhead transmission lines / underground cables within Merton Council's administrative area that form an essential part of the electricity transmission network in England and Wales include the following:

- YYU line – 275kV route from Wimbledon substation in Merton to Beddington substation in Sutton
- Underground cables from Wimbledon substation in Merton to Willesden substation in Ealing
- Underground cables from Wimbledon substation in Merton to Beddington substation in Sutton

The following substations are also located within the London Borough of Merton's administrative area:

- Wimbledon substation (275kv)

National Grid has provided information in relation to electricity transmission assets, including maps and GIS shape files showing their broad locations, via the following internet link:

<http://www.nationalgrid.com/uk/LandandDevelopment/DDC/GasElectricNW>

Gas Transmission

National Grid has no gas transmission assets located within the administrative area of Merton.

Electricity and Gas Distribution

UK Power Networks owns and operates the local electricity distribution network in Merton Council's administrative area.

Southern Gas Networks owns and operates the local gas distribution network in Merton Council's administrative area.

Contact details for UK Power Networks and Southern Gas Networks can be found on the Energy Networks website: www.energynetworks.org

Specific Comments

Wimbledon Substation

National Grid owns and operates the Wimbledon substation which is adjacent to **site 37: Former Greyhound Stadium** as identified in the Site Proposals document.

While National Grid does not object to future development in the area surrounding the substation site, we would like to take this opportunity to highlight that substations are vital to the efficient operation of our electricity transmission network for switching circuits or transforming voltage. Wimbledon substation is a strategic and large electricity substation which forms a critical part of the overall national electricity transmission system, and subsequently has numerous operational noise sources. These noise sources include constant tonal noise from equipment such as transformers and high impulse noise due to the quite infrequent switchgear operations. As an operational site there are often significant works being undertaken and frequent traffic to and from the site. It is important to note that these noise sources may affect the amenity of the future occupiers of the proposed development and National Grid requests that this impact is taken into consideration when considering development close to this site.

The site is therefore "Operational Land" and, for the reasons outlined above, there may need to be further essential utility development at the site in the future.

Overhead electricity transmission

The following sites identified in the draft Sites and Policies document are crossed by National Grid's high voltage overhead electricity transmission lines:

Site 50: Waterside Way

National Grid does not own the land over which the overhead lines cross, and it obtains the rights from individual landowners to place our equipment on their land. Potential developers of the sites should be aware that it is National Grid policy to retain our existing overhead lines in-situ. Because of the scale, bulk and cost of the transmission equipment required to operate at 400kV National Grid only supports proposals for the relocation of existing high voltage overhead lines where such proposals directly facilitate a major development or infrastructure project of national importance which has been identified as such by central government. Therefore we advise developers and planning authorities to take into account the location and nature of existing electricity transmission equipment when planning developments.

National Grid prefers that buildings are not built directly beneath its overhead lines. This is for two reasons, the amenity of potential occupiers of properties in the vicinity of lines and because National Grid needs quick and easy access to carry out maintenance of its equipment to ensure that it can be returned to service and be available as part of the national transmission system. Such access can be difficult to obtain without inconveniencing and disturbing occupiers and residents, particularly where properties are in close proximity to overhead lines.

The statutory safety clearances between overhead lines, the ground, and built structures must not be infringed. To comply with statutory safety clearances the live electricity conductors of National Grid's overhead power lines are designed to be a minimum height above ground. Where changes are proposed to ground levels beneath an existing line then it is important that changes in ground levels do not result in safety clearances being infringed. National Grid can, on request, provide to developers detailed line profile drawings that detail the height of conductors, above ordnance datum, at a specific site.

National Grid seeks to encourage high quality and well planned development in the vicinity of its high voltage overhead lines. Land beneath and adjacent to the overhead line route should be used to make a positive contribution to the development of the site and can for example be used for nature conservation, open space, landscaping areas or used as a parking court. National Grid, in association with David Lock Associates has produced 'A Sense of Place' guidelines, which look at how to create high quality development near overhead lines and offers practical solutions which can assist in avoiding the unnecessary sterilisation of land in the vicinity of high voltage overhead lines.

'A Sense of Place' is available from National Grid and can be viewed at:
www.nationalgrid.com/uk/senseofplace

Further information regarding development near overhead lines and substations is available here:
http://www.nationalgrid.com/uk/LandandDevelopment/DDC/devnearohl_final/pdf/brochure.htm

Underground electricity transmission cables

The following sites identified in the draft Sites and Policies document are crossed by, or located within close proximity to National Grid's high voltage underground electricity transmission cables:

Site 50: Waterside Way

Site 59: Corner Baltic close and High Street Collier's Wood.

Site 75: Former Mitcham Gas Works

Site 78: 191-193 Western Road

Our underground cables are protected by renewable or permanent agreements with landowners or have been laid in the public highway under our licence. These grant us legal rights that enable us to achieve efficient and reliable operation, maintenance, repair and refurbishment of our electricity transmission network. Hence we require that no permanent structures are built over or under cables or within the zone

specified in the agreement, materials or soil are not stacked or stored on top of the cable route or its joint bays and that unrestricted and safe access to any of our cable(s) must be maintained at all times

The information supplied is given in good faith and only as a guide to the location of our underground cables. The accuracy of this information cannot be guaranteed. The physical presence of such cables may also be evident from physical protection measures such as ducts or concrete protection tiles. The person(s) responsible for planning, supervising and carrying out work in proximity to our cable(s) shall be liable to us, as cable(s) owner, as well as to any third party who may be affected in any way by any loss or damage resulting from their failure to locate and avoid any damage to such a cable(s).

The relevant guidance in relation to working safely near to existing underground cables is contained within the Health and Safety Executive's (www.hse.gov.uk) Guidance HS(G)47 "Avoiding Danger From Underground Services" and all relevant site staff should make sure that they are both aware of and understand this guidance.

Our cables are normally buried to a depth of 1.1 metres or more below ground and cable profile drawings showing further details along the route of the particular cable can be obtained from National Grid's Plant Protection Team. Cables installed in cable tunnels, deeper underground, whilst less likely to be affected by surface or shallow works may be affected by activities such as piling. Ground cover above our cables should not be reduced or increased.

If a landscaping scheme is proposed as part of the works, we request that no trees and shrubs are planted either directly above or within 3 metres of the existing underground cable, as ultimately the roots may grow to cause damage to the cable.

The relocation of existing underground cables is not normally feasible on grounds of cost, operation and maintenance and environmental impact and we believe that successful development can take place in their vicinity.

Further Advice

National Grid is happy to provide advice and guidance to the Council concerning our networks. If we can be of any assistance to you in providing informal comments in confidence during your policy development, please do not hesitate to contact us. In addition the following publications are available from the National Grid website or by contacting us at the address overleaf:

- National Grid's commitments when undertaking works in the UK - our stakeholder, community and amenity policy;
- specification for Safe Working in the Vicinity of National Grid High Pressure Gas Pipelines and Associated Installations - Requirements for Third Parties; and
- A sense of place - design guidelines for development near high voltage overhead lines.

Please remember to consult National Grid on any Development Plan Document (DPD) or site-specific proposals that could affect our infrastructure. We would be grateful if you could add our details shown below to your consultation database:

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I hope the above information is useful. If you require any further information please do not hesitate to contact me.

Yours sincerely,

[via email]

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cc. Vicky Stirling, National Grid