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23 April 2014

Dear Sir / Madam

**Shropshire County Council: Site Allocations and Management of Development Pre- Submission Consultation**  
**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 Shropshire County Council's administrative area**

### Electricity Transmission

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

- ZZJ line – 400kV route from Legacy substation in Wrexham and passes through from Ironbridge substation in Shrewsbury via Shrewsbury substation;
- ZNA line – 400kV route from Ironbridge substation to Penn substation in South Staffordshire;
- VM line – 400kV route from Ironbridge substation to Codsall in South Staffordshire.

The following substations are also located within the administrative area of Shropshire Council:

- Ironbridge substation - 400kV
- Shrewsbury substation – 400kV

National Grid has provided information in relation to electricity transmission assets via the following internet link:

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

### Gas Transmission

National Grid has no the gas transmission assets within the administrative area of Shropshire Council:

### Gas Distribution

National Grid Gas Distribution owns and operates the local gas distribution network in Shropshire Council area. If you require site specific advice relating to our local gas distribution network then information should be sought from:

National Grid Plant Protection  
National Grid, Block 1, Floor 2  
Brick Kiln Street  
Hinckley  
LE10 0NA  
[plantprotection@uk.ngrid.com](mailto:plantprotection@uk.ngrid.com)

## **Specific Comments**

### Draft Policy MD 8 Infrastructure Provision

As previously noted National Grid welcomes the inclusion of the above policy and are supportive of paragraph 2 which seeks to safeguard operational land. National Grid welcomes the addition of the supporting text in paragraph 4.60 which makes reference to Nationally Significant Infrastructure Projects (NSIPs).

National Grid has no further comments to make in relation to Policy MD8: Infrastructure Provision.

### Site Allocations

The following sites identified in the pre-submission report as potential development locations are crossed by National Grid's high voltage overhead electricity transmission lines:

- Site Ref: SHREW105. Proposed Housing site crossed by ZZJ 400kV route.
- Site Ref: SHREW095 and 115/ELR006. Proposed Housing site crossed by ZZJ 400kV route.
- Site Ref: ELR007. Proposed Employment site crossed by ZZJ 400kV.

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](http://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](http://www.nationalgrid.com/uk/LandandDevelopment/DDC/devnearohl_final/pdf/brochure.htm)

## **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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Warwickshire  
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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]

**Julian Austin**  
**Consultant Town Planner**

cc. Vicky Stirling, National Grid