

## **PROPOSED MEAFORD ENERGY CENTRE**

### **ECOLOGY TECHNICAL NOTE**

#### **INTRODUCTION**

1. Meaford Energy Limited (MEL) is promoting the development of the Meaford Energy Centre and Connections (MEC) which is a new CCGT power station at Meaford Business Park, Staffordshire. The CCGT power station will have an electrical capacity of up to 299 megawatts (MW). The development will comprise the CCGT power station and the integral gas pipeline between the MEC and the existing gas network.
2. The proposal constitutes a Nationally Significant Infrastructure Project (NSIP) under the terms of the Planning Act 2008, as its capacity is greater than 50MW, and therefore an application for a development consent order (DCO) is to be made to the Planning Inspectorate (PINS), who will examine the DCO application on behalf of the Secretary of State.
3. MEL's proposed application to PINS for a DCO will be supported by ecology studies undertaken as a part of the formal Environmental Impact Assessment (EIA) of the proposals.
4. These studies will take into account the direct effects on ecology on the site of the CCGT power station and within the area identified for the gas pipeline connection. It will also consider ecology that might be affected further afield, for example through air emissions or water discharges.
5. This technical note is to support preliminary non-statutory consultation on the MEC proposals. It provides an overview of the ecological aspects of the proposed development and its gas connection. It is based upon a review of information that was gathered to inform the previous application to redevelop the site, which was consented, updated preliminary desk study work undertaken in 2012-2013, and an initial ecology survey undertaken during 2012. It sets out how the information will be considered further and in more detail as the proposals are developed.

## **ECOLOGY OF THE MEAFORD BUSINESS PARK SITE**

6. The site was formerly occupied by two coal-fired power stations, Meaford A and Meaford B. They have been demolished and apart from some residual electrical infrastructure (sub-stations and electricity power lines) and office buildings, is predominantly derelict brownfield land with extensive piles of demolition rubble. It is bisected by numerous concrete roads and informal tracks and there are the remnants of amenity grassland and ornamental planting with some ponds, particularly at the northern end of the site.
7. At the northern entrance to the site, there is a gatehouse next to which, to the east, is a permanent pond located within an area of woodland. To the west of the site entrance is a bowling green with small prefab clubhouse, a dilapidated tennis court and fringing areas of grassland, scrub and scattered trees. The northern end of the site also has a number of buildings, car parking and fenced open storage areas in industrial/business use.
8. The site rises toward the eastern boundary, which is bounded by the Trent and Mersey Canal. The habitat here comprises short perennial vegetation with scattered scrub and sapling silver birch closer to the centre of the site. Towards the eastern boundary, the vegetation becomes dominated by established silver birch with occasional willow. An open swathe between the trees is dominated by rushes, indicating wetter soil conditions and a small number of seasonal waterbodies were noted. All of this area appears to be on previously disturbed ground.
9. An area of willow dominated woodland is present on the western side of the site, north of an existing substation. The substrate comprises construction and demolition arisings, likely to be from the former coal-fired power stations. In addition to willow, occasional alder is present with tall perennial vegetation, including willowherb.
10. The southern end of the site is largely covered in woodland with both mixed plantation and semi-natural broadleaf woodland. The semi-natural broadleaf woodland comprises silver birch, ash, sweet chestnut, oak and lime with an understorey of coppiced hazel (last coppiced 15 years ago) and elder, with bluebell amongst the ground flora. A number of mature trees (ash and sweet chestnut) are present which could have potential for bats. The mixed woodland comprises pine with red oak, Norway maple, sycamore, sweet chestnut and silver birch. Rhododendron are present in the shrub layer.
11. A field of semi-improved grassland is located adjacent to the woodland. A field of improved grassland is present in the south-eastern corner of the site. The field has managed hedgerow and a wooded bank which slopes up to the Trent and Mersey Canal. Species noted include silver birch, ash, hawthorn and rhododendron. The south-western corner of the site comprises scattered broom and gorse with silver birch saplings, occasional bramble scrub, tufted hair grass and rushes.

12. There are no designated habitats within the Meaford Business Park site. Preliminary habitat surveys indicate that the site has some potential, primarily around the fringes of the business park, for great crested newts, reptiles, bats, badgers, breeding birds and notable invertebrates. With consideration of the siting of the power plant within the business park, appropriate environmental design and management during construction, any impacts on ecology can be adequately mitigated.

## **ECOLOGY OF THE GAS CONNECTION CORRIDOR AND MEAFORD BUSINESS PARK SURROUNDS**

13. The area within which the proposed gas connection could be made does not contain any sites with a statutory designation for their ecological value. It comprises agricultural fields, hedgerows, pockets of woodland and scrub. The Trent and Mersey Canal and Stone Branch railway also pass through the corridor. These areas could provide habitats for notable and protected species. In addition to the waterbodies identified on site, the desk study identified 17 potential waterbodies located within close proximity to the Meaford Business Park site boundary. It is possible that these could contain populations of great crested newts and as such would also be taken into account in the siting of the CCGT power station within the business park, its design and construction
14. Within the wider area there are no statutory designated sites within 2km of the site. Within 5km of the site there is one Site of Special Scientific Interest (SSSI) and three Local Nature Reserves (LNRs):
  - King's and Hargreaves Wood SSSI – 4 km northwest;
  - Stone Meadows LNR – 2.3 km south;
  - Crown Meadow LNR – 2.8 km south;
  - Barlaston & Rough Close Common LNR – 4.4 km northeast.
15. A search area of 15km also identified a Special Area of Conservation (SAC) and a Wetland of International Importance (Ramsar site):
  - Pasturefields Salt Marsh SAC – 15 km southeast;
  - Midlands Meres & Mosses Ramsar site – 11 km southwest.

## **ASSESSMENT METHODOLOGY**

16. An ecological impact assessment of the development will be undertaken as a part of the EIA process. The methodology for the assessment will be agreed with the relevant authorities beforehand and will include gathering all relevant existing records, undertaking field surveys, determining the effects of the development proposals both during construction and operation of the CCGT power station and predicting the impacts on ecology. A programme of mitigation will be developed to address any significant issues.

17. Walkover surveys will be undertaken to gather information on a wide range of potential ecology issues. Specific surveys for the presence or absence of protected species will be undertaken where necessary, for example for great crested newts, reptiles, bats, badgers, birds and notable invertebrates.
18. European designated sites for nature conservation (i.e. Pasturefield Salt Marsh SAC and Midlands Meres & Mosses Ramsar site) lie within 15 km of the proposed CCGT power station site. The Conservation of Species and Habitats Regulations 2010, Regulation 61, states that a competent authority must make an appropriate assessment of the implications for a project in view of the designated site's conservation objectives alone and in combination with other projects and plans.
19. Therefore, it will also be necessary to undertake a Stage 1 Habitats Regulations Assessment (HRA) Screening to determine any likely significant effect on the European sites as a result of the proposed development, both alone and in-combination with other projects and plans. This is undertaken by the competent authority in consultation with Natural England.

#### **ADDRESSING THE ECOLOGICAL EFFECTS**

20. Options for the layout of the proposed CCGT power station within the site will seek to focus development away from potentially sensitive habitats such as the existing woodland at the southwest of the site. The options will be further developed as survey data is collated. The gas connection outside of the main site will also consider ecological constraints of the area in which the connection will be made.
21. Beyond this, MEL proposes to adopt the following approach:
  - The design and operation of the CCGT power station will seek to minimise any adverse effects on ecology through limiting noise and light pollution, and through the control of air and water emissions to standards agreed with the environmental regulators and which take account of the impacts on ecology.
  - Where appropriate, landscaping and planting will be designed to provide an enhancement to the local ecology by providing suitable habitats to support wildlife. This could include the provision of additional water features.
  - Where identified adverse effects on ecology cannot be addressed through design, appropriate mitigation measures will be identified and, where necessary, compensatory ecological measures will be incorporated into the development proposals.
22. These measures will be drawn up in consultation with the corresponding stakeholders and statutory bodies.