

Gate Burton Energy Park

Preliminary Environmental Information Report

Volume 3, Appendix 8-D: Badger Survey Report

June 2022

Gate Burton Energy Park Limited

Quality information

Prepared by

MC

Checked by

AB

Verified by

MW

Approved by

WB

Prepared for:

Gate Burton Energy Park Limited

Prepared by:

AECOM Limited

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Introduction

1.1 Background

- 1.1.1 AECOM (on behalf of Gate Burton Energy Park Limited) undertook a Preliminary Ecological Appraisal (PEA) (Ref 5-1) for the Gate Burton Energy Park (hereafter referred to as the Scheme). The PEA identified the need for follow-up surveys to determine the potential impacts of the Scheme on Badger *Meles meles*, a species protected under the Protection of Badgers Act 1992 (Ref 5-2). Therefore, AECOM was instructed by Gate Burton Energy Park Limited to undertake a survey for Badger within the Scheme boundary (the DCO Site) (see Figure 1 Appendix A) to determine the presence or likely absence of Badger.
- 1.1.2 Owing to the confidentiality surrounding the reporting of locations of Badger, the survey results, evaluation and conclusions have been redacted from this report and are included as a confidential annex (Annex 8A). This separate annex will be provided separately to key stakeholders only.

1.2 The Scheme

- 1.2.1 Gate Burton Energy Park is a proposed new solar farm and battery storage project which will generate renewable energy for exporting to the National Grid. The Scheme is anticipated to have a generation capacity of 50 megawatts, comparable to providing over 160,000 homes with clean energy power. The Scheme is the subject of a Development Consent Order (DCO) application and will be located within the Site (also referred to as the DCO Site) (Figure 1 Appendix A).
- 1.2.2 The Scheme will comprise the following infrastructure:
- The Solar and Energy Storage Site, which includes:
 - Solar photovoltaic (PV) array works area (including panels and mounting structures to form the PV tables); inverters, transformers, and switchgear, which form the Power Conversion Stations; and medium voltage distribution cables, secondary access tracks, and ancillary works;
 - An energy storage system, (referred to as Battery Energy Storage System (BESS));
 - On-site electrical components comprising substations and control buildings;
 - An on-site substation; and
 - Landscape and biodiversity enhancement.
 - The Grid Connection Route, which will be a circa 6km electrical connection route (with a working width of 30 to 40 m) to connect National Grid at Cottam Power Station; and

- An off-site electrical compound comprising of a substation and control building.
- 1.2.3 The Solar and Energy Storage Park will be fenced and protected via security measures such as CCTV and emergency lighting. Internal access tracks, habitat management and drainage will also be included.

1.3 Site Description

- 1.3.1 The Scheme is located to the east of Gate Burton, Lincolnshire. The location of the Scheme is shown in Figure 1 (Appendix A). The DCO Site covers an area of approximately 1,436 hectares (ha).
- 1.3.2 The Solar and Energy Storage Park Site (as defined in Section 1.2) covers an approximate area of 700ha and is dominated by arable fields with game crop strips and a few *Miscanthus* (Silvergrass) fields in the east of the Solar and Energy Storage Park Site. There are numerous mature trees and hedges within the DCO Site, with woodlands and small wooded copses. The Solar and Energy Storage Park Site is surrounded by mainly arable and improved grassland livestock fields.
- 1.3.3 The Grid Connection Route (as defined in Section 1.2) covers an area of approximately 700ha and is dominated by arable fields. There are hedgerows and watercourses within the Grid Connection Route and the River Trent is crossed by the Grid Connection Route.
- 1.3.4 The Ordnance Survey (OS) central grid reference for the Solar and Energy Storage Park is SK 84904 83646.

1.4 Scope of the Report

- 1.4.1 The objective of the Badger survey, reported in this document is to determine the presence or likely absence of Badger within the DCO Site and, if present, to report on any mitigation that may be required.
- 1.4.2 This report includes the following information:
- a. Relevant legislation and policy;
 - b. Methods for desk and field-based assessments undertaken between 2021 and 2022;
 - c. Limitations to the surveys undertaken and any assumptions made as a result of incomplete data;
 - d. Survey results (Annex 8A);
 - e. Evaluation and potential impacts (Annex 8A); and
 - f. Conclusions (Annex 8A).
- 1.4.3 This report is a technical appendix to accompany the **PEI Report Volume 1: Chapter 8: Ecology and Nature Conservation** of the Preliminary Environmental Information (PEI) Report and provides preliminary baseline information of the DCO Site, as of April 2022, covering the Solar and Energy Storage Park where the principal infrastructure is proposed (see section 1.2) and surveys of the Grid Connection Route from Public Rights of Way and within the limits of accessible areas of private land. However, surveys are

ongoing and any updates to surveys will be provided within an updated report and included in the ES as part of the DCO submission.

Legislation and Planning Policy

2.1 Relevant legislative context

- 2.1.1 Badgers and their setts¹, are protected under various legislation, drawn together under the Protection of Badgers Act 1992 (Ref 5-2), which protects Badgers from deliberate harm and injury. Restrictions under this Act, which apply to development, make it an offence to:
- a. Wilfully kill, injure, possess or cruelly ill-treat a Badger, or attempt to do so;
 - b. Interfere with a sett by damaging or destroying it;
 - c. Obstruct access to, or an entrance of, a sett; and
 - d. Disturb a Badger when it is occupying a sett.
- 2.1.2 This legislation prevents development on a site occupied by Badgers without any mitigation being agreed and undertaken prior to development commencing. If potential impacts are perceived on Badger setts, such as disturbance or loss, then a licence to close a sett would be required from Natural England. It would also be necessary to undertake appropriate mitigation that comprises construction of artificial sett(s).
- 2.1.3 The Protection of Badgers Act, 1992, was introduced to combat the cruel ill-treatment and persecution to which Badgers are sometimes subjected. This report identifies the location of a number of Badger setts and therefore to safeguard these animals, the report should be treated as confidential and not released into the public domain.

2.2 Local Biodiversity Action Plan

- 2.2.1 Badger is not listed as a Priority Species on the Lincolnshire Biodiversity Action Plan (Ref 5-3) or the Nottinghamshire Biodiversity Action Plan (Ref 5-4).

¹ A sett is a Badger's home (den), comprising a network of underground tunnels and entrance holes.

Methods

3.1 Desk Study

- 3.1.1 A desk study was undertaken in October 2021 through the Lincolnshire Environmental Records Centre (LERC) and the Nottinghamshire Biological and Geological Record Centre (NBGRC) to obtain records of Badger within the preceding ten years and within a 2km radius of the DCO Site.
- 3.1.2 Only records up to ten years old from the request date were considered within the assessment, as any records older than ten years are unlikely to be still representative of Badger presence in the local area.

3.2 Field Survey

Survey Area

- 3.2.1 The area surveyed for Badger (the survey area) included all habitat within the DCO Site (see Figure 1 Appendix A), where access allowed (see Section 3.3).
- 3.2.2 Where access allowed, the survey area was extended to 50m beyond the DCO Site.

Badger Activity

- 3.2.3 The survey was based on standard survey methodology for surveying Badger, as described in the Mammal Society publication: Surveying Badgers (Ref 5-5); in Surveying for Badgers: Good Practice Guidelines, Version 1 (Ref 5-6) and in the National Badger Survey method (Ref 5-7).
- 3.2.4 A walkover survey was undertaken on 7th- 10th December 2021 on the Solar and Energy Storage Park Site (see Section 1.2.2) and 12th-13th April 2022 within the Grid Connection Route, to look for evidence of Badger activity. Furthermore, any evidence of Badger activity that was noted whilst undertaking other Ecology surveys of the survey area was also recorded.
- 3.2.5 The survey area was searched for all signs of Badger activity within the DCO Site including:
 - a. Setts;
 - b. Pathways in vegetation;
 - c. Footprints;
 - d. Hairs;
 - e. Latrines/dung pits; and
 - f. Snuffle holes/signs of foraging activity
- 3.2.6 Any holes considered to be a Badger sett were categorised using sett classification criteria (Ref 5-7) and identified setts were classified using the following criteria:
 - a. **Main sett:** These are large setts with a number of active holes and conspicuous spoil heaps around the sett. There will be well used paths to

and from sett entrances and they are usually in continuous use. A main sett is most likely to be where cubs are born and there is only one main sett per Badger clan.

- b. **Annexe sett:** These setts are often close to main setts and are linked to main setts through well-worn paths in vegetation. There are usually several entrance holes to an annexe sett, but these may not be in use all the time.
- c. **Subsidiary sett:** These are smaller setts and usually comprise three to five entrance holes, often >50m from a main sett, with usually no connectivity to other setts.
- d. **Outlier sett:** There are usually one to three holes in an outlier sett, with small spoil heaps outside the hole. They are often used sporadically and have no connectivity with other setts. When not in use by Badger, they may be taken over by other ground-dwelling mammals

3.2.7 Once a sett was identified, entrance holes were classified further as being one of the following:

- a. **Well-used:** The entrance hole is clear of debris and vegetation and is in regular use. It may not have been recently excavated.
- b. **Partially used:** A hole not in regular use, with minimal clearance when in use. Debris, including leaves and moss may be present in the entrance hole.
- c. **Disused:** Holes have obviously not been in use and are partially or completely blocked. They cannot be used without considerable clearance. Where a hole has not been used in some time, the hole may be just visible as a depression in the ground and former spoil heap.

3.2.8 Additionally, a subjective assessment of the habitat quality within the survey area was used to determine 'foraging potential' for Badgers. This assessment was based on the number of available food sources and included:

- a. **'Good' foraging potential:** where habitat was considered to provide Badgers with a variety of foraging opportunity throughout the year;
- b. **'Moderate' foraging potential:** where foraging opportunities are seasonal and limited; and
- c. **'Poor' foraging potential:** areas with no food value for Badger.

3.3 Assumptions and Limitations

Desk Study

3.3.1 The aim of the desk study was to help characterise the baseline context of the Scheme and provide valuable background information that would not be captured by a single site survey alone. Information obtained during the course of the desk study is dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for Badger does not necessarily mean that Badger does not occur in the study area. Likewise, the presence of records of Badger within the study area does not automatically mean that these still occur or are relevant in the context of the Scheme.

Field Survey

- 3.3.2 Access was not granted into all private land parcels proposed for the Grid Connection Route and therefore the Badger survey was undertaken from Public Rights of Way and accessible areas, as of April 2022. Therefore, a full assessment of Badger activity across all land within the Grid Connection Route could not be made at the time of the survey.
- 3.3.3 Sufficient information was gathered during the assessment to provide a representative evaluation of the population of Badger present within the Solar and Energy Storage Park Site (see Section 1.2.2).

Results and Evaluation

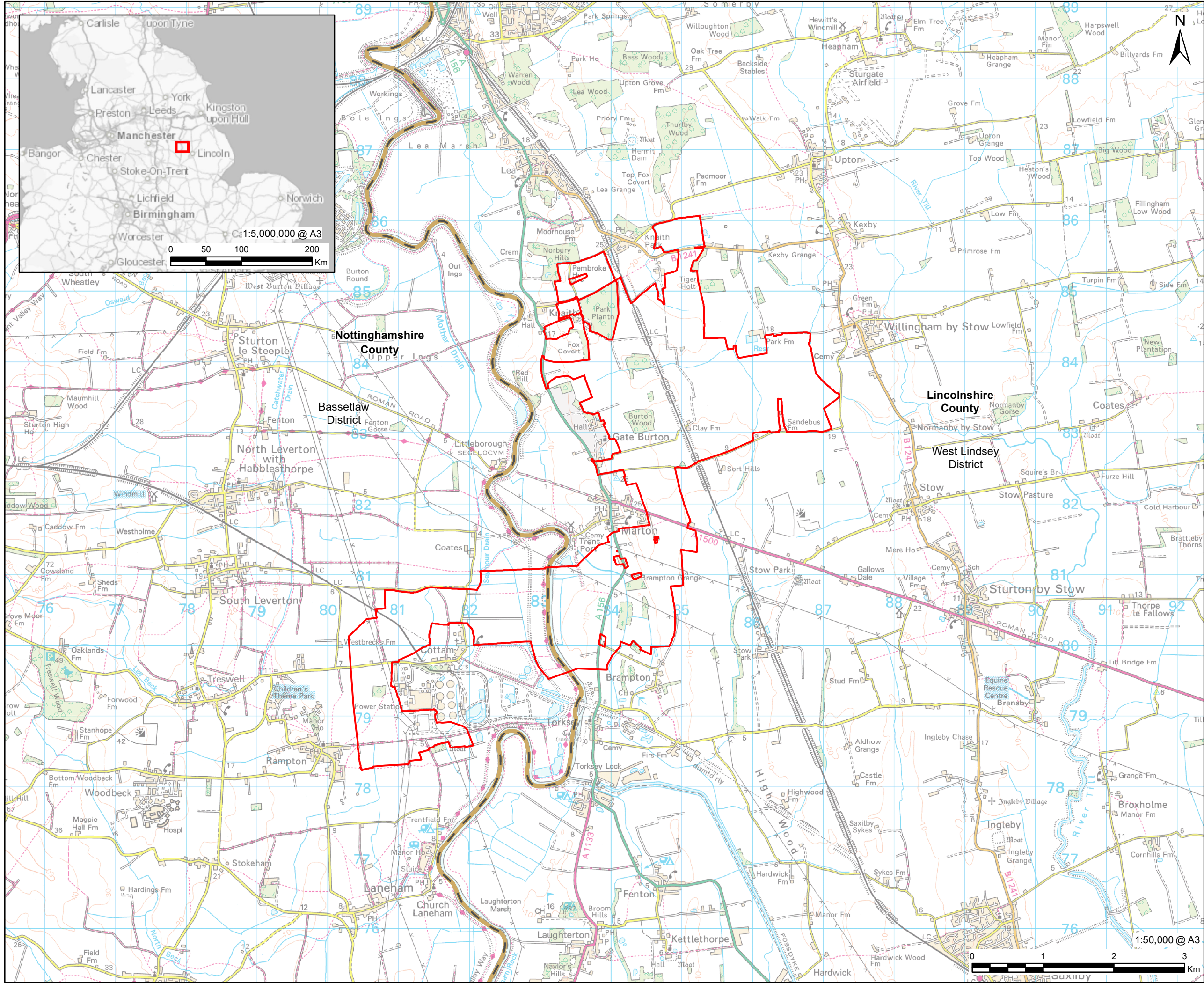
- 4.1.1 The results of the Badger survey are presented in confidential Annex 8A, which will be provided separately to key stakeholders.

References

- Ref 5-1 AECOM. (2022) Gate Burton Energy Park: Preliminary Ecological Appraisal.
- Ref 5-2 Anon. (1992) Protection of Badgers Act 1992. HMSO.
- Ref 5-3 Lincolnshire Biodiversity Action Plan. (2012-2020) 3rd edition.
<http://www.southkesteven.gov.uk/CHttpHandler.ashx?id=7371&p=0>.
- Ref 5-4 Nottinghamshire Biodiversity Action Group (2008) Local Biodiversity Action Plan.
<https://nottsbadg.org.uk/lbap/lbap-introduction-and-sections-1-to-6/>.
- Ref 5-5 Harris, S., Cresswell, P. and Jefferies, D. (1989) Surveying Badgers, Mammal Society.
- Ref 5-6 Scottish Badgers. (2018). Surveying for Badgers: Good Practice Guidelines. Version 1.
- Ref 5-7 Cresswell, P., Harris, S. and Jefferies, D.J., 1990. The history, distribution, status and habitat requirements of the badger in Britain. Nature Conservancy Council, Peterborough.

Figures

Figure 1 Site Boundary



AECOM

PROJECT

Gate Burton Energy Park

CLIENT


Gate Burton
ENERGY PARK

CONSULTANT

AECOM Limited
Sunley House
4 Bedford Park
Surrey, CR0 2AP, UK
www.aecom.com

LEGEND

-  DCO Site
-  District Boundary
-  County Boundary

NOTES

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Ordnance Survey 0100031673.

ISSUE PURPOSE

FOR INFORMATION

PROJECT NUMBER

60664324

FIGURE TITLE

Site Location

FIGURE NUMBER

Figure 1

Annex 8A: Badger survey results, evaluation and conclusions

ANNEX 8A is CONFIDENTIAL and is NOT for general issue

