Gate Burton Energy Park Environmental Statement

Volume 3, Appendix 8-G: Report on surveys for reptiles and other amphibians
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Gate Burton Energy Park Limited

Prepared for:

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Table of Contents

Tables

1. Introduction

1.1.1 This report on reptiles and other amphibians forms a technical appendix to the Environmental Statement (ES), specifically to accompany **ES Volume 1, Chapter 8: Ecology and Nature Conservation [EN010131/APP/3.1]**. Further information on the Scheme is included within **ES Volume 1, Chapter 2: The Scheme [EN010131/APP/3.1]**.

1.2 Report Objectives

1.2.1 This report includes the following information:

- Relevant legislation and policy;
- Methods for desk and field-based assessments undertaken in 2021 and 2022, respectively;
- Limitations to the surveys undertaken and any assumptions made as a result of incomplete data;
- Survey results; and
- Conclusions.

2. Relevant Legislation and Policy

2.1 Legislation

2.1.1 The four reptile species that could be found within or in the neighbourhood of the Scheme are typically referred to as 'widespread' (despite the fact that all of Britain's native reptile species are declining to some degree[1]): Adder *Vipera berus*, Grass Snake *Natrix helvetica*, Common Lizard *Zootoca vivipara* and Slow Worm *Anguis fragilis*. These four species are afforded protection under Section 9(1) and (5) only, under Part 1 of the Wildlife and Countryside Act 1981 (as amended) (Ref 2), which makes it an offence to:

- Intentionally kill or injure a reptile;
- Sell, offer or expose for sale, or to possess or transport for sale alive or dead reptile or any part of or anything derived from a reptile;
- Publish or cause to be published any advertisement likely to be understood as conveying that a person buys or sells, or intends to buy or sell, any of those things.

2.1.2 In accordance with this legislation, care must be taken to ensure that reptiles are not killed or injured during project works. Sensitive timings and methods of vegetation clearance and construction works are essential to minimise the risk to reptiles and the risk of causing an offense under the legislation. Note, this information does not cover the Sand Lizard *Lacerta agilis* or the Smooth Snake *Coronella austriaca*, which are both fully protected under the

[1] Froglife (1999) Reptile survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife Advice Sheet 10. Froglife, Halesworth

Conservation of Habitats and Species Regulations 2017 (Ref 3). Neither of these species has been recorded at or near to the Scheme.

2.1.3 There are no licensing provisions within the WCA Act (Ref 2) for development activities affecting these species. However, developers are expected to take adequate precautions to avoid breaches of the legislation, including undertaking adequate surveys and mitigation to avoid or minimise the risk of killing or injuring reptiles.

2.2 Priority Species

2.2.1 The Natural Environment and Rural Communities (NERC) list of Species of Principal Importance (Ref 4) is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under Section 40 of the NERC Act (2006); under Section 40 every public authority (*e.g.* a local authority or local planning authority) must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.

2.2.2 In addition, with regard to those species on the list of Species of Principal Importance listed under Section 41, the Secretary of State must:

"(a) take such steps as appear to the Secretary of State to be reasonably practicable to further the conservation of the living organisms and types of habitat included in any list published under this section, or

(b) promote the taking by others of such steps."

2.2.3 The UK Biodiversity Action Plan (UKBAP) was launched in 1994 and established a framework and criteria for identifying species and habitat types of conservation concern. From this list, action plans for priority habitats and species of conservation concern were published and have subsequently been succeeded by the UK Post-2010 Biodiversity Framework (July 2012) (Ref 5). The UK Post 2010 Development Framework is relevant in the context of Section 40 of the Natural Environment and Rural Communities (NERC Act) 2006, meaning that Priority Species and Habitats are of material consideration in planning. These habitats and species are identified as those of conservation concern due to their rarity or a declining population trend.

2.2.4 Common Lizard, Grass Snake, Slow Worm, Adder and Common Toad *Bufo bufo* were added to the UK Biodiversity Action Plan (UKBAP) as priority species in September 2007 and subsequently were included as Species of Principal Importance in England under Section 41 of the NERC Act (2006) (Ref 4) (as well as Sand Lizard and Smooth Snake) meaning that they are of material consideration in planning.

2.3 Local Biodiversity Action Plans

2.3.1 The Site is located within the counties of Lincolnshire and Nottinghamshire. The Lincolnshire Biodiversity Action Plan (3rd edition) (Ref 6) and Nottinghamshire Biodiversity Action Plan (Ref 7) provide the local nature conservation strategy for identifying threats to species within each of the

counties and set out the action plans necessary to conserve them. These action plans provide context to inform identification of threatened or uncommon species within the district and, or county. The plans also identify priorities for conservation and enhancement but confer no particular legislative or policy protection to the species identified, however in some cases this is provided through related legislation and local planning policy.

Reptiles

2.3.2 Common Lizard, Grass Snake, Slow Worm and Adder are listed as Priority Species on the Lincolnshire Biodiversity Action Plan (Ref 6) and Slow Worm are listed as Priority Species on the Nottinghamshire Biodiversity Action Plan (Ref 7).

Amphibians

2.3.3 Common Toad, Natterjack Toad *Epidalea calamita* are listed as Priority Species on the Lincolnshire Biodiversity Action Plan (Ref 6) The Nottinghamshire Biodiversity Action Plan does not list any amphibians as Priority Species (Ref 7).

2.3.4 The Lincolnshire Biodiversity Action Plan (Ref 6), includes threats to newts in Lincolnshire. These include;

- Loss of suitable breeding ponds due to lowered water-tables; infilling for development, farming or waste disposal; neglect; natural succession; shading from surrounding vegetation;
- Degradation, loss and fragmentation of terrestrial habitats;
- Introduction of fish into breeding ponds, which eat young newts and eggs; and
- Chemical pollution, eutrophication and toxic effects of agrochemicals.

3. Methods

3.1 Desk Study

3.1.1 A desk study was undertaken as part of the Preliminary Ecological Appraisal (PEA) in October 2021 (see **ES Volume 3: Appendix 8-B [EN010131/APP/3.3]**). This desk study obtained records of reptiles and amphibians within the preceding ten years and within a 2 km radius of the Site from Greater Lincolnshire Nature Partnership (GLNP) and Nottinghamshire Biological and Geological Records Centre (NBGRC).

3.1.2 Only records up to ten years old were considered within the assessment, as any records older than ten years are unlikely to be still representative of reptile or amphibian presence in the local area.

3.2 Field Survey

Habitat Suitability Assessment

3.2.1 A Habitat Suitability Assessment (HSA) for reptiles was undertaken using existing desk-based study data, which included a review of the Phase 1 map to determine the most likely habitats supporting reptiles and amphibians; and aerial photographs. This information was used to define the survey area. The assessment considered the following characteristics for assessing the suitability of habitat for reptiles:

- Location in relation to species range;
- Vegetation structure;
- Insolation (sun exposure);
- Aspect;
- Topography;
- Connectivity to nearby good quality habitat;
- Refuge opportunity;
- Hibernation potential;
- Disturbance; and
- Egg-laying site potential (Grass Snake only).

3.2.2 For each habitat type or discrete area, the output of the HSA graded each habitat for its potential to support reptiles, based on the above factors. Table 1 presents the definitions used in the HSA and habitat grading.

Table 1 Habitat suitability assessment for reptiles

Habitat Grading	Definition
Poor	Habitat which is unfavourable for reptiles based on most of the habitat assessment characters listed above or is limited in size and highly isolated from other areas of suitable habitat.
Good	Habitat which is favourable or sub-optimal for many of the habitat assessment characters listed above; or is sub-optimal for some of the characters and has good connectivity with areas of more suitable habitat.

Habitat Grading	Definition
Exceptional	Habitat which is favourable for reptiles based on most of the habitat assessment characters listed above.

Survey Area

3.2.3 The survey area included selected areas of suitable terrestrial habitat for reptiles (and amphibians) within the Site, which included: water bodies (ponds), marshy grassland, ephemeral / short perennial vegetation, scrub edges and semi-improved grassland. Six areas (collectively referred to as the Survey Area) were identified within the Site during the HSA as being 'good' reptile habitat and were subject to further survey.

Reptile (and other amphibian) presence / absence

3.2.4 The field surveys utilised the following survey methods to record reptile (and other amphibian) presence or absence within the Site:

- Visual observations of amphibians in water bodies, including tadpoles, eggs and newt efts;
- Refugia surveys within the Survey Area (see Section 3.2.3); and
- Visual observation of banks and, or other, suitable terrestrial habitat within the Site.

Amphibian surveys

3.2.5 An amphibian survey was undertaken on April 25th and 26th 2022, by suitably experienced AECOM ecologists. Surveys took place from the edge of the water body within Survey Area 1 (see Figure 8G-1), without entering the water. The survey involved walking steadily along the edge of the water body and observations and sightings were recorded of any amphibians in the water or signs of amphibian presence such as tadpoles or eggs.

3.2.6 Additionally, any sightings of amphibians that were made during surveys for Great Crested Newt (see **ES Volume 3: Appendix 8-B [EN010131/APP/3.3]**) in other ponds within 500 m of the Site were also recorded.

Refugia surveys

3.2.7 The refugia surveys were undertaken between 2nd September and 13th October 2022, by suitably experienced AECOM ecologists. All refugia surveys were carried out in accordance with Froglife's Advice Sheet 10 for Reptile Surveys (Ref 8) and Natural England's Standing Advice Sheet for Reptiles (Ref 9).

3.2.8 Artificial refugia, in the form of sheets of bitumen roofing felt, measuring approximately 0.5m² in area, were placed in likely basking spots for reptiles. These areas included un-shaded patches next to cover, suitable grassland and adjacent to potential hibernation sites such as piles of rubble, logs, rabbit burrows and near vegetation waste such as arisings from grass cuttings and wood chips.

3.2.9 A total of 99 refugia sheets were distributed across the survey areas and the number of refugia sheets placed in each survey area are presented in Table 2.

Table 2 Number of artificial refugia placed within each survey area

Scheme Area (see Section 1.3)	Survey Area (see Figure 8G-1)	Size (ha) of area	Number of artificial refugia sheets	Density of refugia per hectare
Solar and Energy Storage Park	1*	12.8*	20	1.6*
Solar and Energy Storage Park	1a	3.3	17	5.2
Solar and Energy Storage Park	2	0.8	10	12.5
Solar and Energy Storage Park	3	0.8	5	6.3
Solar and Energy Storage Park	4	0.5	5	10.0
Grid Connection Corridor	5	5.8	42	7.2

Notes: * Whilst Survey Area 1 is 12.8ha, only the water body and marshy grassland within this area was subject to refugia surveys as the remaining area was managed grassland and sub-optimal. Therefore refugia was placed within these areas only.

3.2.10 The density of sheets was based on guidance from Froglife (Ref 8), which recommends 5 to 10 sheets per hectare. The locations of each survey area within the Scheme are presented in Figure 8G-1.

3.2.11 Following placement of sheets in each survey area, the artificial refugia were left *in-situ* for up to two weeks to settle in and were then checked on seven separate occasions, being removed from the Site on the seventh visit. Any existing hibernation sites within the survey area, such as rubble piles or wood piles, were, where possible, also searched for reptiles during checks of artificial refugia.

3.2.12 Reptile activity is greatly influenced by weather conditions, with reptiles most likely to use artificial refugia in temperatures of between 9°C and 18°C (Ref 8) and in hazy or intermittent sunshine with light winds (Ref 9). The optimal survey period for reptiles (as recommended in the Herpetofauna Worker's Manual (Ref 10)) is April, May and September. Reptiles are also active in June, July and August; however, they will need to spend less time basking so may be more difficult to find (Ref 10).

3.2.13 The age of each reptile found was also recorded using the Amphibian and Reptile Conservation Trust (ARC) Reptile Identification Guide (Ref 11).

3.2.14 The dates of reptile surveys and weather conditions during these surveys are presented in Table A-1 in Appendix A. All surveys were undertaken by experienced AECOM ecologists.

Visual Inspections

3.2.15 Whilst undertaking other ecological surveys across the Site, any incidental observations of reptiles and amphibians within the Site were recorded and searches were made in order to 'spot' basking Common Lizards. This species will often sit on top of grass tussocks, debris and felts and will quickly move from sight upon disturbance. Consequently, spotting this species can be more effective than searching under artificial refugia. Common Lizards are often very territorial and will often reuse favourite basking sites (Ref 10). Once these sites are known, spotting can become a relatively successful method of lizard recording.

Population Assessment

3.2.16 Where reptiles are present, estimating population sizes of reptiles can be undertaken using guidance within Froglife's advice sheet Number 10 (Ref 8). This advice sheet provides a simple means of evaluating a species population as 'low', 'good', or 'exceptional' on the basis of the maximum number of adult reptiles (of each species) recorded during a single visit (see Table 3).

Table 3 Population estimates of reptile (taken from Froglife, 1999 (Ref 8))

Species	Low Population	Good Population	Exceptional Population
Adder	<5	5-10	>10
Grass Snake	<5	5-10	>10
Common Lizard	<5	5-20	>20
Slow Worm	<5	5-20	>20

3.2.17 This method of population size estimate uses the assumption of a reptile survey using a density of up to 10 reptile sheets per hectare, although it can be difficult to determine a population size through interpretation of data using peak counts and densities. An average score across all survey visits will provide a more robust estimate of the population size of each reptile species present within suitable on-site habitat.

3.3 Assumptions and Limitations

Desk Study

3.3.1 The aim of a desk study is to help characterise the baseline context of a scheme and provide valuable background information that would not be captured by a single site survey alone. Information obtained during the course of a 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 a particular habitat or species does not necessarily mean that the habitats or species do not occur in the study area. Likewise, the presence of records for particular habitats and species does not automatically mean that these still occur within the area of interest or are relevant in the context of the Scheme.

Field Survey

3.3.2 Due to time constraints for surveys within survey area 5 (the Grid Connection Corridor, see Figure 8G-1), the artificial refugia were not left *in-situ* for two weeks prior to the first visit to survey for reptile presence / absence. The duration between the initial placement of reptile mats and the first survey visit was two days. Whilst a limitation to the first survey visit, this did not affect the subsequent six visits and sufficient data on the presence of reptile species within this area was collected. Additionally, there will be no permanent removal of habitat during construction of the Grid Connection Corridor and any disturbance to species and their habitat will be temporary as the Grid Connection Corridor will be installed underground.

3.3.3 Despite the limitations detailed above, it is considered that sufficient information has been gathered during the assessment to provide a representative sample of the population of reptiles present within the Scheme boundary.

4. Results

4.1 Desk Study

Reptiles

4.1.1 The desk study returned seven records of one reptile species (Grass Snake) recorded within 2 km of the Site and within the preceding ten years. The closest records to the Scheme areas were of Grass Snake located 340 m east of the Solar and Energy Storage Park and 120 m north-east of the Grid Connection Corridor.

4.1.2 No records of other reptile species were received.

Amphibians

4.1.3 The desk study returned six records of Common Toad, two records of Smooth Newt *Lissotriton vulgaris* and twenty-five records of Common Frog *Rana temporaria* recorded within 2 km of the Site and within the preceding ten years. All the records returned were outside of the Site, except one record of Common Toad at the very northern edge of the Site.

4.2 Habitat Suitability Assessment

4.2.1 Habitat within the Site comprises arable farmland, grassland and woodland connected by hedgerows. The majority of the Solar and Energy Storage Park includes arable field margins with limited, or no connectivity to more favourable reptile habitat off Site. Therefore, these areas were graded as poor with sub-optimal suitability for reptiles. However, the Survey Areas chosen (see Figure 8G-1) were of better-quality habitat, graded as good with optimal and sub-optimal suitability for reptiles and subject to presence/absence surveys.

4.3 Field Surveys

Reptiles

4.3.1 During the refugia surveys, one species of reptile, Common Lizard, was recorded in both the Solar and Energy Storage Park and in the Grid Connection Corridor.

4.3.2 The species, date, age class, number of individuals and location of Common Lizard recorded during the refugia surveys are detailed below in Table 4 and presented in Figure 8G-1.

Table 4 Reptile species recorded within the Site

Date	Species	Age Class	Number of individuals	Scheme Area	Survey Area
02/09/2022	Common Lizard	Adult	1	Solar and Energy Storage Park	2

Date	Species	Age Class	Number of individuals	Scheme Area	Survey Area
09/09/2022	Common Lizard	Juvenile	1	Solar and Energy Storage Park	2
13/09/2022	Common Lizard	Juvenile	1	Solar and Energy Storage Park	2
13/09/2022	Common Lizard	Juvenile	1	Solar and Energy Storage Park	1
21/09/2022	Common Lizard	Juvenile	1	Grid Connection Corridor	5
21/09/2022	Common Lizard	Adult	1	Grid Connection Corridor	5
21/09/2022	Common Lizard	Adult	1	Solar and Energy Storage Park	2
28/09/2022	Common Lizard	Juvenile	1	Grid Connection Corridor	5
10/10/2022	Common Lizard	Juvenile	1	Grid Connection Corridor	5

4.3.3 During other ecological surveys undertaken in June 2022, a Grass Snake was observed within the marshy grassland habitat within Survey Area 1.

4.3.4 Furthermore, it was noted that Grass Snake are potentially present in the Grid Connection Corridor in Survey Area 5 as the landowner there reported such presence. Although no Grass Snakes were recorded during the refugia surveys, a precautionary approach to mitigation will be implemented within this area on the assumption of presence.

Amphibians

4.3.5 During field surveys in 2022, a large number of Common Frog spawn and tadpoles were observed in the pond in Survey Area 1 (see Figure 8G-1).

4.3.6 During the Refugia surveys carried out in September and October 2022, juvenile Common Frogs were found under the reptile mats in Survey Area 1 (see Figure 8G-1) within close proximity to the pond.

4.3.7 No other amphibians were recorded during any surveys including refugia surveys.

5. Evaluation

5.1 Summary of Results

Reptiles

5.1.1 The desk study returned seven records of Grass Snake within 2 km of the Solar and Energy Storage Park within the preceding ten years. No other reptile species records were returned by the desk study.

5.1.2 Field surveys in 2022 identified two species of reptile, Common Lizard and Grass Snake within the Solar and Energy Storage Park.

5.1.3 No other reptile species were recorded within the Site or returned by the desk study.

Amphibians

5.1.4 The desk study returned six records of Common Toad, two records Smooth Newt and twenty-five records of Common Frog within 2 km of the Solar and Energy Storage Park within the preceding ten years.

5.1.5 Field surveys in 2022 identified one species of amphibian, Common Frog, which was recorded within the Solar and Energy Storage Park.

5.1.6 No other amphibian species were recorded within the Site or returned by the desk study.

5.2 Population Size Assessment

5.2.1 The population size assessment of reptiles within the Site was measured using guidance presented in Table 3. and was used to obtain a basic evaluation of the size and importance of the population of reptiles within the Site. When determining the population size of reptiles on a site, consideration must be made for other factors that may influence the assessment such as habitat quality and species ecology.

5.2.2 Estimating the population size of reptiles on a site (see Table 3) is however difficult to achieve because each survey visit may only reveal a small sample of the population and the proportion of animals that may be detected during surveys will vary according to, for example, weather and migration patterns.

5.2.3 To allow for focussed estimation of the population size, relevant to the Scheme, only the maximum counts of each species on a single visit within the Scheme areas have been used.

Solar and Energy Storage Park

5.2.4 The Survey Areas (see Figure 8G-1) within the Solar and Energy Storage Park contained the most suitable habitat for reptiles, including tussocky grassland along field margins, marshy grassland and grassland habitats connected to the railway corridor within the centre of the Site.

5.2.5 Common Lizard was recorded within tussocky grassland close to the railway line in Survey Area 2 (see Figure 8G-1) and within marshy grassland close to the pond in Survey Area 1 (see Figure 8G-1).

5.2.6 In the Solar and Energy Storage Park the maximum count of Common Lizard on a single survey visit was two animals. The average score of Common Lizard across all survey visits at the Solar and Energy Storage Park amounts to 0.29 Common Lizard per survey. Therefore, when the maximum count of two animals is evaluated against the criteria in Table 3 of this report, the population of Common Lizard is classified as low and of no more than local importance.

5.2.7 A single Grass Snake was recorded within marshy grassland (in Survey Area 1 (see Figure 8G-1)), this was not whilst the refugia surveys were carried out, but instead during other ecology surveys that were completed in 2022. This was the only Grass Snake that was recorded, and it is therefore likely only a low population persists and is of no more than local importance.

Grid Connection Corridor

5.2.8 Common Lizard was recorded within Survey Area 5 (see Figure 8G-1) and the maximum count of Common Lizard on a single survey visit was two animals. The average score of Common Lizard across all survey visits amounts to 0.29 Common Lizard per survey. Therefore, when the maximum count of two animals is evaluated against the criteria in Table 3 of this report, the population of Common Lizard is classified as low and of no more than local importance.

5.2.9 Whilst no Grass Snake were recorded within the Grid Connection Corridor during refugia surveys, it has been noted that Grass Snake are potentially present in Survey Area 5 (see Figure 8G-1) as the landowner has reported such presence. It is therefore likely that only a low population persists and is of no more than local importance. On the assumption of presence, a precautionary approach to mitigation will be implemented within this area.

6. Conclusions

Reptiles

6.1.1 The reptile surveys undertaken in 2022 identified the presence of low numbers of one reptile species (Common Lizard) within the Site. The Survey Areas where reptiles were recorded are presented in (see Figure 8G-1) and are as follows:

- Survey Area 1 (Solar and Energy Storage Park);
- Survey Area 2 (Solar and Energy Storage Park); and
- Survey Area 5 (Grid Connection Corridor).

6.1.2 Grass Snake was recorded during other ecological surveys within the Solar and Energy Storage Park and the landowner of Survey Area 5 (within the Grid Connection Corridor (see Figure 8G-1)) reported the presence of Grass Snake there. However, no Grass Snake were observed in Survey Area 5 during the reptile surveys.

6.1.3 Any development within the Solar and Energy Storage Park and the Grid Connection Corridor (specifically Survey Areas 1, 2 and 5 where Common Lizard were recorded (see Figure 8G-1)), has the potential to impact on reptile populations. In the absence of appropriate mitigation, these impacts could include:

- Risk of incidental injury and mortality to Common Lizard and Grass Snake during the construction of the Scheme;
- Temporary loss of habitat within the Grid Connection Corridor, used by reptiles; and
- Temporary disturbance of foraging reptiles, potentially using arable field margins of the Solar and Energy Storage Park, during construction of the Scheme.

6.1.4 Both Common Lizard and Grass Snake are listed under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended), which prohibits intentional injuring or killing of a reptile. Therefore, through the implementation of a mitigation strategy, formalised through a Construction and Environment Management Plan (CEMP), the potential for killing and injuring of reptiles will be avoided. Mitigation is required to:

- Ensure compliance with relevant legislation; and
- Avoid impacts that would give rise to a potential “significant effect”, therefore contrary to planning policy and biodiversity obligations of the NERC Act 2006.

6.1.5 A significant negative effect is one which undermines nature conservation objectives or changes the conservation status of a species population (Ref 12).

Amphibians

6.1.6 The surveys undertaken in 2022 identified the presence of one amphibian species (Common Frog) within the Site.

6.1.7 Any development where Common Frog (or other amphibians) are present has the potential to impact on populations. In the absence of appropriate mitigation, these impacts would be:

- Risk of incidental injury and mortality to amphibians during the construction of the Scheme; and
- Temporary disturbance of foraging amphibians, potentially using arable field margins, during construction of the Scheme.

6.1.8 Therefore, through the implementation of a mitigation strategy, formalised through the **Framework CEMP [EN010131/APP/7.3]**, the potential for killing and injuring of amphibians will be avoided.

7. References

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Figures

Figure 8G-1. Location of reptile survey areas and reptiles found within the Site

Revision: 0 Drawn: BF Checked: DH Approved: RW Date: 2022-11-22

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Area 1
20 Sheets

Area 2
10 Sheets

Area 1a
17 sheets

Area 3
5 sheets

Area 4
5 sheets

Area 5
42 Sheets

N

1:30,000 @ A3

0 0.5 1 1.5 2 km

AECOM

PROJECT

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CLIENT

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LEGEND

- Order Limits
- Reptile Survey Area, Reptiles Present
- Reptile Survey Area, Reptiles Not Present

NOTES

ISSUE PURPOSE

Environmental Statement

PROJECT NUMBER

60664324

FIGURE TITLE

Reptile Survey Areas

FIGURE NUMBER

Figure 8G.1

Appendix A

Table A - 5 Survey dates and weather conditions for reptile surveys carried out within the survey area

Survey Visit	Date	Start and End times	Temperature	Cloud Cover	Precipitation	Ground Conditions
1 (Solar and Energy Storage Park)	02/09/22	09:15 – 12:00	16˚C - 20 ˚C	60%	None	Wet
2 (Solar and Energy Storage Park)	06/09/22	10:15 – 12:45	17˚C - 20˚C	80%	None	Wet
3 (Solar and Energy Storage Park)	09/09/22	09:25 – 11:55	15˚C - 19˚C	100%	None	Wet
4 (Solar and Energy Storage Park)	13/09/22	11:30 – 13:50	16˚C - 17˚C	10%	None	Damp
5 (Solar and Energy Storage Park) and 1 (Grid Connection Corridor)	16/09/22	09:10 – 12:30	12˚C - 15˚C	0%	None	Mostly Dry
6 (Solar and Energy Storage Park) and 2 (Grid Connection Corridor)	21/09/22	09:40 – 13:15	15˚C -18 ˚C	0%	None	Mostly Dry
3 (Grid Connection Corridor)	26/09/22	16:40 – 17:15	13˚C – 12˚C	50%	None	Dry
4 (Grid Connection Corridor)	28/09/22	11:55 – 12:40	13˚C - 14˚C	20%	None	Dry
7 (Solar and Energy Storage Park) and 5 (Grid Connection Corridor)	30/09/22	10:10 – 13:00	12˚C - 12˚C	40%	None	Wet
6 (Grid Connection Corridor)	10/10/22	14:45- 15:45	17˚C - 17˚C	5%	None	Damp
7 (Grid Connection Corridor)	13/10/22	09:15- 10:00	14 ˚C - 14 ˚C	5%	None	Damp