



Little Crow

Solar Park

Little Crow Solar Park, Scunthorpe

ENVIRONMENTAL STATEMENT

CHAPTER 2

ASSESSMENT SCOPE AND METHODOLOGY

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2 ASSESSMENT SCOPE AND METHODOLOGY

2.1 INTRODUCTION

2.1.1 This chapter explains the methodology used to prepare the technical chapters of this Environmental Statement and describes its structure and content. This chapter sets out the standard process of identifying and assessing the likely significant environmental effects of the development. Where methodology differs then this is explained within each relevant technical chapter.

2.2 GENERAL APPROACH TO ENVIRONMENTAL STATEMENT

2.2.1 The Environmental Statement must contain the information specified in regulation 18(3) and must meet the requirements of Regulation 18(4). It must also include any additional information specified in Schedule 4 to the 2017 Regulations which is relevant to the specific characteristics of the particular development or type of development and to the environmental features likely to be significantly affected.

2.2.2 Regulation 18(3) and 18(4) states: -

- (3) An environmental statement is a statement which includes at least—
- (a) a description of the development comprising information on the site, design, size and other relevant features of the development;
 - (b) a description of the likely significant effects of the development on the environment;
 - (c) a description of any features of the development, or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment;
 - (d) a description of the reasonable alternatives studied by the developer, which are relevant to the development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment;
 - (e) a non-technical summary of the information referred to in sub-paragraphs (a) to (d); and
 - (f) any additional information specified in Schedule 4 relevant to the specific characteristics of the particular development or type of development and to the environmental features likely to be significantly affected.
- (4) An environmental statement must—
- (a) where a scoping opinion or direction has been issued in accordance with regulation 15 or 16, be based on the most recent scoping opinion or direction issued (so far as the proposed development remains materially the same as the proposed development which was subject to that opinion or direction);
 - (b) include the information reasonably required for reaching a reasoned conclusion on the significant effects of the development on the environment, taking into account current knowledge and methods of assessment; and

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(c) be prepared, taking into account the results of any relevant UK environmental assessment, which are reasonably available to the person preparing the environmental statement, with a view to avoiding duplication of assessment.

2.2.3 Schedule 4 states: -

1. A description of the development, including in particular: (a) a description of the location of the development; (b) a description of the physical characteristics of the whole development, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases; (c) a description of the main characteristics of the operational phase of the development (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used; (d) an estimate, by type and quantity, of expected residues and emissions (such as water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases.

2. A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.

3. A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.

4. A description of the factors specified in regulation 4(2) likely to be significantly affected by the development: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.

5. A description of the likely significant effects of the development on the environment resulting from, inter alia: (a) the construction and existence of the development, including, where relevant, demolition works; (b) the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources; (c) the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste; (d) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters); (e) the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources; (f) the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change; (g) the technologies and the substances used. The description of the likely significant effects on the factors specified in regulation 4(2) should cover

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the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development. This description should take into account the environmental protection objectives established at Union or Member State level which are relevant to the project, including in particular those established under Council Directive 92/43/EEC(a) and Directive 2009/147/EC(b).

6. A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.

7. A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover both the construction and operational phases. prevented, reduced or offset, and should cover both the construction and operational phases.

8. A description of the expected significant adverse effects of the development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are relevant to the project concerned. Relevant information available and obtained through risk assessments pursuant to EU legislation such as Directive 2012/18/EU(c) of the European Parliament and of the Council or Council Directive 2009/71/Euratom(d) or UK environmental assessments may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.

9. A non-technical summary of the information provided under paragraphs 1 to 8.

10. A reference list detailing the sources used for the descriptions and assessments included in the environmental statement.

2.2.4 In order to ensure the completeness and quality of the Environmental Statement, Regulation 5 (a) and (b) require that: -

- the developer must ensure that the environmental statement is prepared by competent experts; and
- the environmental statement must be accompanied by a statement from the developer outlining the relevant expertise or qualifications of such experts.

2.2.5 The relevant experience of the team which carried out this Environmental Impact Assessment is discussed within **Section 1.9 of Chapter 1 (Document Ref 6.1 LC ES CH1)**.

2.2.6 Accordingly, in summary this Environmental Statement comprises the following information:

- A description of the development comprising information about the site including the nature, size and scale of the development;

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- The data necessary to identify and assess the main effects which the development is likely to have on the environment;
- A description of the likely significant effects of the development covering, direct effects and any indirect, secondary, cumulative, short, medium and long term, permanent and temporary, positive and negative effects, explained by reference to the development's possible effect on cultural and archaeological heritage, landscape and the interaction between any of the foregoing material assets (as appropriate).
- Where significant adverse effects are identified with respect to any of the foregoing, mitigation measures will be proposed in order to avoid, reduce or remedy those effects; and
- A summary in non-technical language of the information specified above.
- A statement outlining the relevant experience of the experts who have undertaken the assessment and prepared the technical chapters within the Environmental Statement.

2.3 DEVELOPMENT PARAMETERS

2.3.1 The development, which has been the subject of this Environmental Impact Assessment, is described in detail within Chapter 4 which also sets out the parameters and controls defining those aspects of the development capable of having significant environmental effects, as defined by the Environmental Impact Assessment Regulations.

2.4 CONSIDERATION OF ALTERNATIVES

2.4.1 The Environmental Statement provides a discrete section which details the reasonable alternatives and the reasoning for the selection of the chosen option. This is presented at Chapter 4.

2.5 SCOPE OF ENVIRONMENTAL IMPACT ASSESSMENT

2.5.1 The scope of information and assessment supplied within the Environmental Statement is considered to provide a clear understanding of the potential significant effects of the development upon its environment and the mitigation measures proposed to avoid or ameliorate those effects. The information, scope and knowledge required to undertake the Environmental Impact Assessment has been acquired from a number of varied sources to ensure that all impacts, whether explicit from the outset or coming to light during the projects; development, were appropriately assess as part of the Environmental Impact Assessment process or as standard technical documentation that support the wider application submission. These sources include: -

- Scoping Opinion adopted by the Planning Inspectorate in January 2019
- Discussion with statutory consultees
- Specialist studies
- Expert knowledge from INRG Solar Ltd and environmental consultant team with regards to their technical subject and experience of renewable energy schemes of similar scale elsewhere in the United Kingdom.

2.5.2 The Environmental Statement demonstrates within individual chapters how the points raised by the consultation bodes have been taken into account.

2.5.3 Accordingly, the environmental themes scoped into or out of the Environment Impact Assessment are given in Table 2.1. A discreet consideration towards climate change, alternatives and accidents & disasters are consider in the description of development (Chapter 4).

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Table 2.1: Environmental Themes Scoped In / Out

Environmental Theme	Scoped In/Out	How/ Where Addressed / Reason for Scoping Out
Transport	In	Addressed in Chapter 9
Biodiversity	In	Addressed in Chapter 7
Cultural Heritage	In	Addressed in Technical Chapter 8
Landscape and Visual	In	Addressed in Technical Chapter 6.
Accidents and Emergency	In	Addressed in Chapter 4.
Climate Change	In	Addressed in Chapter 4.
Agriculture	In	Addressed in Chapter 10
Socio-Economic	In	Addressed in Chapter 11
Air Quality	Out	<p>As cited in the Scoping Opinion, the Inspectorate considers that in light of the location and nature of the Proposed Development; the limited number of nearby receptors; and the availability of standard controls, the Proposed Development is unlikely to give rise to significant construction or decommissioning air quality effects.</p> <p>It was agreed that construction and decommissioning air quality effects may be scoped out from the ES.</p> <p>An Air Quality assessment of the construction traffic emissions together with a carbon offset assessment supports the submission and s presented as supplementary information supporting the description of development (chapter 4).</p>
Land & Hydrology	Out	<p>As cited in the scoping opinion, the Inspectorate considers that significant effects on ground conditions are unlikely based on the information provided as part of the scoping request. Given the nearby historic drilling activity and oil extraction located outside the order limits, the Inspectorate duly requested that details of the former oil well are reported in the ES and these are presented as supplementary information supporting Chapter 3.</p>
Noise and Vibration	Out	<p>In light of the location and nature of development and the limited number of nearby receptors, the proposed development is unlikely to give rise to significant noise and vibration impacts during construction and operation. A technical chapter on noise is not provided. Instead, a Noise Impact Assessment is presented as supplementary information supporting chapter 4 'Development Description'.</p>

2.6 ITERATIVE DESIGN THROUGH THE EIA

2.6.1 It is important to acknowledge that a key value of the EIA is its iterative design process that allows for refinement to the scheme. Accordingly, it should be expected to come across some design changes which have a knock on effect over the design parameters that were set out at the early stages of the design as laid out at the pre-

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application consultation stage and the Screening Request. That said, the development, development footprint, duration of development and order limits remain materially the same as the proposed development described in the applicants scoping request and pre-application consultation. As part of its pre-submission advice, the Planning Inspectorate asked for the Environmental Statement to provide clarification that the submission development remains materially the same since scoping was provided. The key design iterations since scoping was issued are detailed below: -

- Repositioning of the temporary diversion to public footpath within order limits. The temporary diversion of the public footpath was included in the development description at the pre-application and scoping request stages. For the submission, the proposed temporary diversion has been relocated to follow the southern edge of the site as this provides greater separation and containment between users of the PRow and construction vehicles during construction and decommissioning.
- Perimeter Development Buffer – a 'development buffer' has been proposed since the outset and this is located between the edge of the order limits and the proposed perimeter fencing containing the arrays or battery storage. Since the scoping request, the function of the buffer has been extended to allow the provision of future mitigation planting should it be required during the lifetime of the development. This provides a safeguard mechanism in the event that screening located outside the order limit is removed during the lifetime of the development. This change strengthens the scheme capacity to introduce mitigation measures that may be required during the lifetime of development which remains materially the same as that described in the applicant's scoping request.
- Alternative location for battery storage – the submission drawings include an alternative location for battery storage. The alternative location may be utilised if, for example, due to technological advances with solar which allows the overall footprint of the development to be reduced. However, in terms of maximum parameters, the development remains materially the same as that described in the applicant's scoping request.
- PV module specification – in keeping with technological advances the module parameters has evolved since the scoping request was made. However, the land take proposed for the arrays remains the same as that proposed as part the scoping request and a such the proposed development remains materially the same as the proposed development described in the applicant's scoping request.

2.7 ENVIRONMENTAL IMPACT ASSESSMENT METHODOLOGY

2.7.1 The content of the Environmental Statement is based on the following:

- Review of the baseline situation through existing information, including data, reports, site surveys and desktop studies;
- Consideration of the relevant National Policy Statement (NPSs), National Planning Policy Framework (NPPF) and accompanying National Planning Practice Guidance (NPPG), and the relevant planning authority's Development Plan;
- Consideration of potential sensitive receptors;
- Identification of likely significant environmental effects and an evaluation of their duration and magnitude;
- Expert opinion;
- Modelling;
- Use of relevant technical and good practice guidance; and
- Specific consultations with appropriate bodies.

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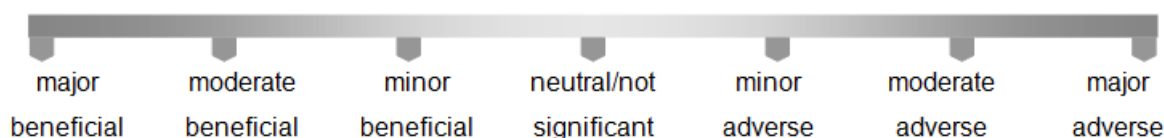
2.7.2 Environmental effects have been evaluated with reference to definitive standards and legislation where available. Where it has not been possible to quantify effects, assessments have been based on available knowledge and professional judgment.

2.8 DETERMINING SIGNIFICANCE

2.8.1 The purpose of the Environmental Impact Assessment is to identify the likely 'significance' of environmental effects (beneficial or adverse) arising from a development. In broad terms, environmental effects are described as:

- Adverse – detrimental or negative effects to an environmental resource or receptor;
- Beneficial – advantageous or positive effect to an environmental resource or receptor; or
- Negligible – a neutral effect to an environmental resource or receptor.

2.8.2 It is proposed that the significance of environmental effects (adverse, negligible/neutral or beneficial) would be described in accordance with the following 7-point scale:-



2.8.3 Significance reflects the relationship between two factors:

- The magnitude or severity of an effect (i.e. the actual change taking place to the environment); and
- The sensitivity, importance or value of the resource or receptor.

2.8.4 The broad criteria for determining magnitude are set out in **Table 2.2**.

Table 2.2: Degrees of Magnitude and their Criteria

Magnitude of Effect	Criteria
High	Total loss or major/substantial alteration to elements/features of the baseline (pre-development) conditions such that the post development character/composition/attributes will be fundamentally changed.
Medium	Loss or alteration to one or more elements/features of the baseline conditions such that post development character/composition/attributes of the baseline will be materially changed.
Low	A minor shift away from baseline conditions. Change arising from the loss/alteration will be discernible / detectable, but the underlying character / composition / attributes of the baseline condition will be similar to the pre-development.
Negligible	Very little change from baseline conditions. Change not material, barely distinguishable or indistinguishable, approximating to a 'no change' situation.

2.8.5 The sensitivity of a receptor is based on the relative importance of the receptor using the scale in **Table 2.3**.

Table 2.3: Degrees of Sensitivity and their Criteria

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Sensitivity	Criteria
High	The receptor / resource has little ability to absorb change without fundamentally altering its present character, or is of international or national importance.
Medium	The receptor / resource has moderate capacity to absorb change without significantly altering its present character, or is of high and more than local (but not national or international) importance.
Low	The receptor / resource is tolerant of change without detrimental effect, is of low or local importance.
Negligible	The receptor / resource can accommodate change without material effect, is of limited importance.

2.8.6 Placement within the 7-point significance scale would be derived from the interaction of the receptor’s sensitivity and the magnitude of change likely to be experienced (as above), assigned in accordance with **Table 2.4** below, whereby effects assigned a rating of Major or Moderate would be considered as ‘significant’.

Table 2.4: Degrees of Significance

Magnitude of Change	Sensitivity of Receptor			
	High	Medium	Low	Negligible
High	Major	Major	Moderate	Negligible
Medium	Major	Moderate	Minor to Moderate	Negligible
Low	Moderate	Minor to Moderate	Minor	Negligible
Negligible	Negligible	Negligible	Negligible	Negligible

2.8.7 The above magnitude and significance criteria are provided as a guide for specialists to categorise the significance of effects within the ES. Where discipline-specific methodology has been applied that differs from the generic criteria above, this is clearly explained within the given chapter under the heading of Assessment Approach.

2.8.8 A significance of effects would be assigned both before and after mitigation.

2.9 MITIGATION

2.9.1 Standard measures and the adoption of construction best practice methods to avoid, minimise or manage adverse environmental effects, or to ensure realisation of beneficial effects, are assumed to have been incorporated into the design of the development and the methods of its construction from the outset. Further information on the standard measures and construction best practice is detailed in **Chapter 4 (Document Ref 6.4 LC ES Ch4)**. Where outlined, the assessment is of the development incorporating these measures. All mitigation measures are contained in the Draft Development Consent Order.

2.9.2 Where mitigation measures are proposed that are specific to an environmental theme or wider development proposal and incorporated into the design these are also outlined within **Chapter 4 (Document Ref 6.4 LC ES Ch4)**, and if relevant are highlighted within the technical chapter.

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2.9.3 Where the assessment of the development has identified potential for adverse environmental effects, the scope for mitigation of those effects, for example by way of compensatory measures, has been considered and is outlined in the appropriate technical chapter. It is assumed that such measures would be subject to appropriate requirements.

2.9.4 Where the effectiveness of the mitigation proposed has been considered uncertain, or where it depends upon assumptions of operating procedures, then data and/or professional judgment has been introduced to support these assumptions.

2.10 CUMULATIVE AND IN-COMBINATION EFFECTS

Cumulative Effects

2.10.1 Cumulative impacts are those effects of development that may interact in an additive or subtractive manner with the impacts of other developments that are not currently in existence but may be by the time the development is implemented. North Lincolnshire Council advised on 15 August 2019 that they were not aware of any new developments that would need to be considered as part of the cumulative impact assessments in respect of the Little Crow Solar Park.

Combination Effects

2.10.2 Combined effects arise where effects from one environmental element bring about changes in another environmental element. These effects are also reviewed in each of the technical chapters of this Environmental Statement. Examples of the main types of interactive effects for the development on residential amenity (i.e. visual impacts).

2.11 GENERAL ASSUMPTIONS AND LIMITATIONS

2.11.1 The principal assumptions that have been made and any limitations that have been identified in preparing this Environmental Statement are set out below:

- All of the principal land uses adjoining the Order Limits remain as present day, except where redevelopment proposals have been granted planning consent. In those cases, it is assumed the redevelopment proposals will be implemented or would but for the development being implemented;
- Information received from third parties is complete and up to date;
- The design, construction and completed stages of the development will satisfy legislative requirements; and
- Requirements are secured within the draft Development Consent Order to cover mitigation and enhancement measures where considered necessary to make the development acceptable.

2.12 STRUCTURE OF TECHNICAL CHAPTER

2.12.1 Throughout the EIA process, the likely significant environmental effects of the development will be assessed. Within each of the technical chapters (chapters 7 to 11) the information which will inform the EIA process has generally been set out in the following way:

- **Introduction** – to introduce the topic under consideration, state the purpose of undertaking the assessment and set out those aspects of the development material to the topic assessment;

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- **Assessment Approach** – to describe the method and scope of the assessment undertaken and responses to consultation in relation to method and scope in each case pertinent to the topic under consideration;
- **Baseline Conditions** – a description of the baseline conditions pertinent to the topic under consideration including baseline survey information;
- **Assessment of Likely Significant Effects** - identifying the likely effects, evaluation of those effects and assessment of their significance, considering both construction and operational and direct and indirect effects;
- **Mitigation and Enhancement** - describing the mitigation strategies for the significant effects identified and noting any residual effects of the proposals;
- **Cumulative and In-combination Effects** - consideration of potential cumulative and in-combination effects with those of other developments; and
- **Summary** – a non-technical summary of the chapter, including baseline conditions, likely significant effects, mitigation, enhancement and conclusion.

