



# Little Crow

*Solar Park*

*Little Crow Solar Park, Scunthorpe*

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## ENVIRONMENTAL STATEMENT

### CHAPTER 9

## TRANSPORT AND ACCESS

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## **9 TRANSPORT AND ACCESS**

### **9.1 INTRODUCTION**

9.1.1 This document represents the Transport and Access chapter of the Environmental Statement. The purpose of the chapter is to assess the likely significant effects of the Proposed Development in terms of transport and access.

9.1.2 This chapter is not intended to be read as a standalone assessment and reference should be made to the other chapters within the ES. In addition, a Transport Statement (Document Ref 7.35 LC TA9.1) and Construction Traffic Management Plan (Document Ref 7.36 LC TA9.2) has been prepared. This includes further assessment of the effect of the development on the surrounding transport network, and the mitigation proposed.

9.1.3 This chapter describes the assessment methodology; the baseline conditions at the Order Limits; the likely significant effects on the environment; the mitigation measures required to prevent, reduce or offset any significant adverse effects; and the likely residual effects after these measures have been employed.

### **9.2 LEGISLATIVE AND POLICY FRAMEWORK**

9.2.1 The assessment has been carried out in accordance with "Guidance on Transport Assessments", prepared by the Department for Transport (DfT) in March 2007 (which is now archived but still considered relevant), "Guidelines for the Environmental Assessment for Road Traffic", Institute of Environmental Management and Assessment (IEMA) and the Design Manual for Roads and Bridges (DMRB), Highways England.

9.2.2 The proposals have also been considered in the context of the following documents:

- National Planning Policy Framework (2019);
- National Planning Practice Guidelines (2019);
- National Policy Statement for Energy (EN-1);
- National Policy Statement for Renewable Energy Infrastructure (EN-3);
- North Lincolnshire Local Plan (2003) and Saved Policies (2007);
- North Lincolnshire Core Strategy (2011);
- North Lincolnshire Local Transport Plan (2011)
- North Lincolnshire Planning for Renewable Energy SPD (2011)

9.2.3 The main thrust of up-to-date policy contained within these documents is to reduce car dependency by making walking and cycling trips easier and by encouraging public transport trips between housing, jobs, shops and services. In particular, encouragement is given to development that is designed and located to reduce average journey lengths.

9.2.4 In relation to a the proposed renewable energy development, National Policy Statement EN-1 states that "if a project is likely to have significant transport implications, the applicant's ES should include a transport assessment, using the NATA/WebTAG139 methodology stipulated in Department for Transport guidance, or any successor to such methodology. Where appropriate, the applicant should prepare a travel plan including demand management measures to mitigate transport impacts".

9.2.5 In relation to the movement of construction materials, National Policy Statement EN-3 states "Government policy encourages multi-modal transport and the IPC should expect materials (fuel and residues) to be transported by water or rail routes where possible... Road transport may be required to connect the site to the rail network, waterway or port. Therefore, any application should incorporate suitable access leading off from the main

# ENVIRONMENTAL STATEMENT

## MAIN STATEMENT

### TRANSPORT AND ACCESS

highway network. If the existing access is inadequate and the applicant has proposed new infrastructure, the IPC will need to be satisfied that the impacts of the new infrastructure are acceptable as set out in Section 5.13 of EN-1”

9.2.6 The North Lincolnshire Planning for Renewable Energy SPD states that schemes need to demonstrate how any environmental effect can be minimised through the construction process.

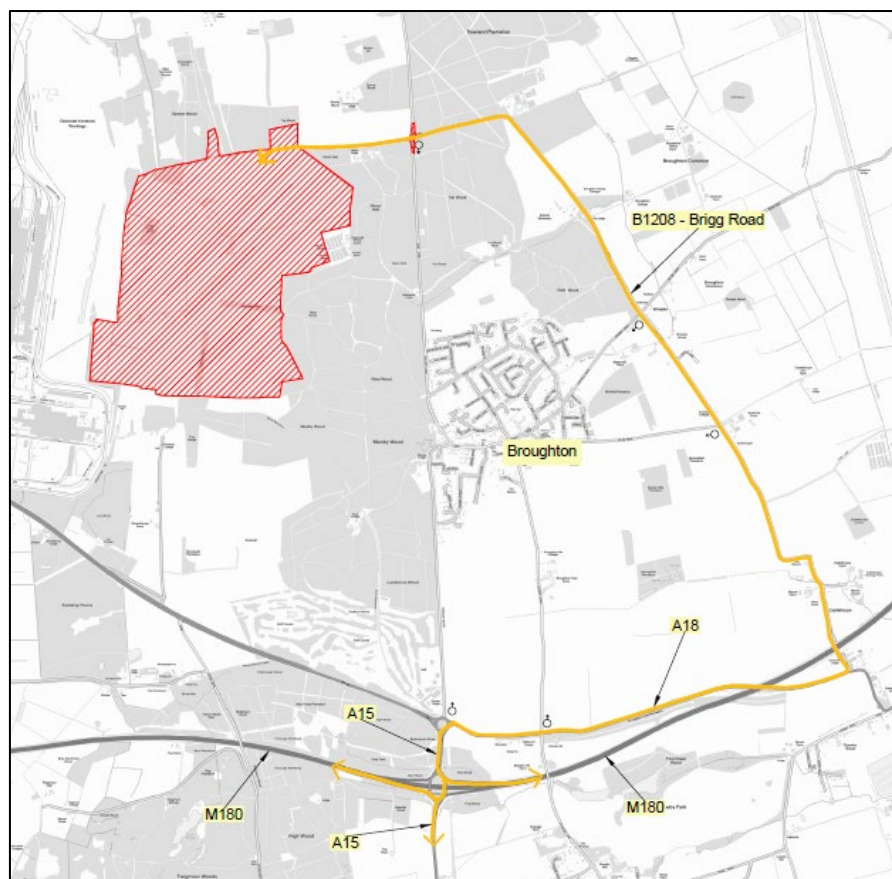
9.2.7 In transport and access terms, the effect of the construction phase will be more significant compared to the operational phase, which is not expected to generate any significant traffic movement.

### 9.3 STUDY AREA

9.3.1 The Study Area follows the proposed construction traffic route to the site from M180. This route is shown in **Figure 9.1**, and comprises the following links:

- A15;
- A18; and
- B1208 Brigg Road.

**Figure 9.1: Proposed Study Area (Construction Route)**



9.3.2 The roads leading to the site already serve HGVs associated with the Steel Works, which is accessible from Dawes Lane to the north of the site. The proposed construction traffic route is therefore considered to be suitable for use by the relatively low number of HGVs that will be associated with the construction period. The likelihood of background traffic being delayed significantly is low.

**9.4 CONSULTATION**

9.4.1 A summary of consultation responses to date is provided in **Table 9.1** below.

**Table 9.1: Summary of Consultation**

<b>Consultee</b>	<b>Summary of response</b>	<b>How response has been addressed</b>
North Lincolnshire Council (March 2018)	<p>"I would suggest that the Transport Statement and CTMP should cover both the construction and operational phases and address the following:</p> <ul style="list-style-type: none"> <li>• details of the scheme</li> <li>• number of staff working on site</li> <li>• deliveries to the site               <ul style="list-style-type: none"> <li>○ number of vehicle movements per day</li> <li>○ day/hours of operation</li> <li>○ any abnormal loads</li> </ul> </li> <li>• proposed routeing to the site from the M180               <ul style="list-style-type: none"> <li>○ reasons for choosing this route and how it will be enforced</li> </ul> </li> <li>• proposed measures to ensure safe movement of all vehicles at the site access/B1208/B1207 crossroads, i.e. both delivery vehicles accessing the site and those travelling along the B1207</li> <li>• a before/after condition survey of the highway network may be required</li> <li>• the proposed connection point to the national grid"</li> </ul>	All of these elements have been included within the Construction Traffic Management Plan that has supported the submission and which will be secured by the requirements of the DCO.
North Lincolnshire Council (January 2019)	"I've reviewed the Scoping Report submitted for the above proposals. I agree with the outline approach for assessing the traffic and transport impacts. The Transport Statement and Construction Phase Traffic Management Plan appear to cover all the issues that we would expect to see included"	
North Lincolnshire Council (March 2019)	"...the Council would expect to see before and after condition surveys of the B1208, with a commitment to making good any damage included within the CTMP"	A commitment to carry out a before and after condition survey is included within the CTMP

**ENVIRONMENTAL STATEMENT  
MAIN STATEMENT**

**TRANSPORT AND ACCESS**

<p>Highways England (August 2018)</p>	<p>"[Highways England] has reviewed the [draft] CTMP and ES, paying due cognisance to the level of impact at the Strategic Road Network. Having considered the proposed trip generation during the construction and operational phases of the development proposals, it is not considered that there will be a severe impact upon the capacity, operation and safety of the SRN. However, more clarity is required regarding the following information, which should be included within the CTMP submitted as part of the subsequent planning submission:</p> <ul style="list-style-type: none"> <li>• HGV movements within the AM and PM peaks; and</li> <li>• Construction worker movements within the AM and PM peaks".</li> </ul>	<p>Information on peak hour construction vehicle movement is included in the CTMP.</p>
<p>Highways England (December 2018)</p>	<p>"At this time, Highways England has no objection to this Solar Farm as described in the documents we have seen. The site is largely away from the M180 road and obscured by trees, so it is unlikely to cause any visibility problems to our road users. Before construction commences we would like to review HGV movements within the AM and PM peaks, especially during the planning construction phase, but this should be easy to supply to us".</p>	<p>Information on peak hour construction vehicle movement is included in the CTMP.</p>
<p>Public Health England (January 2019)</p>	<p>"The final ES contains a sufficiently detailed Construction Environmental Management Plan, Construction Traffic Management Plan and decommissioning plan as proposed in paragraph 4.22 of the Scoping Report. Local knowledge of the area highlights the KSI (Killed and Seriously Injured) rate on the roads is disproportionately high in North Lincolnshire and as such should be given due attention in this consultation from planning, through to construction and commissioning of the solar park"</p>	<p>A review of Personal Injury Accident data is included within this ES chapter and the Transport Statement.</p>
<p>The Planning Inspectorate (January 2019)</p>	<p>"The Scoping Report states that a 'more discrete assessment will be given to operational traffic as this is expected by be negligible'. The Inspectorate considers that based on the low predicted operational</p>	<p>Information on operational vehicle movements are included within this ES and the Transport Statement</p>

**ENVIRONMENTAL STATEMENT  
MAIN STATEMENT**

**TRANSPORT AND ACCESS**

	<p>traffic volumes, consideration of operational traffic effects may be scoped out from the ES, although the description of the whole project should include details of maintenance activities and predicted traffic flows”.</p> <p>“The Inspectorate notes that the predicted delivery durations are described as 26 weeks (Appendix 2.1 Air Quality Report and paragraph 5.21 of the CTMP) or spread over 47 weeks (paragraph 5.6 of the CTMP and Tables 5.1 and 5.2 of the CEMP)”.</p> <p>“The HGV numbers presented within the Scoping Report is inconsistent”</p> <p>“In confirming the HGV movements associated with the Proposed Development, the ES should set out what HGV movements are anticipated in the AM and PM peaks”.</p>	<p>Clarification has been provided to ensure consistency in the ES. The predicted delivery duration is 47 weeks</p> <p>Consistency has been provided</p> <p>Information on peak hour construction vehicle movement is included in the CTMP.</p>
<p>Humberside Fire &amp; Rescue (January 2019)</p>	<p>“It is required to provide adequate access for firefighting. The route and hardstanding should be constructed to provide a minimum carrying capacity of 24 tonnes”.</p>	<p>This is noted</p>
<p>Gary Day (February 2019)</p>	<p>“Can you please tell me what has happened with the rights of way / Public access where the main proposed access is planned to be? (B1208 meets B1207”</p>	<p>The North Lincolnshire Definitive Map has been reviewed and the main proposed access is not designated as a public right of way. Therefore, no further action has been made.</p>

**9.5 ASSESSMENT METHODOLOGY**

9.5.1 The following transport and access issues investigated within this ES Chapter are:

- Severance;
- Driver Delay;
- Pedestrian Delay;
- Pedestrian Amenity (including Fear and Intimidation); and
- Accidents and Safety;

9.5.2 Following the assessment of effects, transport mitigation measures are described which will further mitigate the potential impacts of the Development. An assessment of residual effects following implementation of these mitigation measures is then provided.

### **Types of Impact**

#### Severance

9.5.3 IEMA Guidance defines severance as *"the perceived division that can occur within a community when it becomes separated by a major traffic artery"* (Para 4.27) that 'separates people from places', for example difficulties crossing existing roads or the physical barrier of the road itself.

9.5.4 There are no predictive formulae which give simple relationships between traffic factors and levels of significance. Nevertheless, there are a range of indicators for determining significance of the relief from severance. IEMA guidance suggests *"that changes in traffic flow of 30%, 60% and 90% are regarded as producing slight, moderate and substantial changes in severance respectively"* (Para 4.31). The guidance also suggests that 'marginal changes in traffic flows are, by themselves, unlikely to create or remove severance'.

#### Driver Delay

9.5.5 IEMA Guidance states that "delays are only likely to be significant when the traffic on the network surrounding the development is already at, or close to, the capacity of the system" (Para 4.34). As such, the impact of the proposed development on driver delay is typically considered in relation to background traffic, and existing conditions at the locations set in paragraph 9.3.1. Junction assessment modelling can be used to estimate increased vehicle delays at junctions if necessary.

#### Pedestrian Delay

9.5.6 IEMA Guidance states that "changes in the volume, composition or speed of traffic may affect the ability of people to cross roads. In general increases in traffic levels are likely to lead to increases in delay" (Para 4.35). There are a range of local factors that affect pedestrian delay including the level of pedestrian activity, visibility and general physical conditions of the site. However, IEMA Guidance does not set out thresholds for judging the significance of changes in levels of delay, and suggests that the assessor uses their judgement to determine whether pedestrian delay is a significant impact.

#### Pedestrian Amenity (including Fear and Intimidation)

9.5.7 Pedestrian amenity is broadly described in the IEMA Guidelines as "the relative pleasantness of a journey" (Para 4.39) and can be affected by traffic flow, composition and footway widths. This definition includes pedestrian fear and intimidation and can be considered a much broader category when considering the overall relationship between pedestrians and traffic. The Guidelines suggest that a threshold for judging this would be *"where the traffic flows (or its lorry component) is halved or doubled"* (Para 4.39).

#### Accidents and Safety

9.5.8 The IEMA guidelines do not include any definition in relation to accidents and safety, suggesting that professional judgement will be needed to assess the implications of local circumstance, or factors which may increase or decrease the risk of accidents.

### **Assessment of Significance**



# ENVIRONMENTAL STATEMENT

## MAIN STATEMENT

### TRANSPORT AND ACCESS

9.5.9 The assessment of potential impacts will take into account both the construction and operational phases. The significance level attributed to each impact will be assessed based on the magnitude of change due to the Proposed Development, and the sensitivity of the affected receptor to change.

9.5.10 There are four categories of impact significance considered, which are negligible (i.e. imperceptible), Minor significance (i.e. not noteworthy or material), Moderate significance (i.e. noteworthy or material) and Major significance (i.e. extremely noteworthy or material).

#### **Traffic Flows**

9.5.11 The IEMA Guidelines set out two rules which have been used as threshold impacts to define the scale and extent of this assessment as follows:

- Rule 1: Include highway links where traffic flows will increase by more than 30% (or where the number of HGVs will increase by more than 30%); and  
Rule 2: Include any other specifically sensitive areas where traffic flows have increased by 10% or more.

9.5.12 It is worth noting that, on roads where traffic flows are low, any increase in traffic flow may result in a predicted increase that would be higher than the IEMA Guidelines. However, it is important to consider any overall increase in road traffic in relation to the capacity of the road.

9.5.13 The IEMA Guidance states that "For many effects there are no simple rules or formulae which define the thresholds of significance and there is, therefore, a need for interpretation and judgement on the part of the assessor, backed up by data or quantified information wherever possible", and "those preparing the Environmental Statement will need to make it clear how they have defined whether a change is considered significant or not" (paragraph 4.5).

9.5.14 The Guidelines identify general thresholds for traffic flow increases of 10% and 30%. Where the predicted increase in traffic / HGV flow is lower than these thresholds then the significance of the effects can be considered to be low or not significant and further detailed assessment is not required. However, to ensure a relative assessment of the increase in traffic flows in environmental terms the following criteria defined in Tables 9.2 and 9.3 are used to determine magnitude of impact and receptor sensitivity respectively.

**Table 9.2 Sensitivity/Importance of the Identified Environmental Receptor**

<b>Magnitude</b>	<b>Definition</b>
Very High	Receptors of greatest sensitivity to traffic flows, such as schools, playgrounds, accident blackspots, retirement homes, areas with no footways with high pedestrian footfall
High	Traffic flow sensitive receptors, such as congested junctions, residential areas, hospitals, shopping areas with active frontages, narrow footways, parks and recreational areas
Medium	Receptors with some sensitivity to traffic flow, such as conservation areas, listed buildings, tourist attractions, and residential areas

**ENVIRONMENTAL STATEMENT  
MAIN STATEMENT**

**TRANSPORT AND ACCESS**

Low	Receptors with low sensitivity to traffic flows, and those distant from affected roads
Very Low	Road network not affected.

**Table 9.3 Magnitude of Impact on the Identified Environmental Receptor**

Magnitude	Definition
Very High	Changes to peak or 24hr traffic within the Study Area by 30% or more
High	Changes to peak or 24hr traffic within the Study Area by between 20% and 30%
Medium	Changes to peak or 24hr traffic within the Study Area by between 10% and 20%
Low	Changes to peak or 24hr traffic within the Study Area up to 10%
Very Low	No Change (+/- daily Variation)

9.5.15 The magnitude and receptor sensitivity have been compared to determine the overall significance. The table is duplicated below for ease of reference.

**Table 9.4 Significance of Potential Effects**

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

9.5.16 With reference to the links and junctions identified in paragraph 9.3.1, it is considered that the entire network represents a low sensitivity receptor. This is due to the location of the roads, away from settlements, and the fact that they already carry a significant amount of HGVs to the steel works sites. In addition, the level of pedestrian activity of the roads are not considered to be high enough to represent major receptor sensitivity.

9.5.17 The significance of potential effects is determined by the magnitude of the impact and the sensitivity of the receptor. A major and moderate significance of potential effects is considered to be "significant" in EIA terms.

## **ENVIRONMENTAL STATEMENT MAIN STATEMENT**

### **TRANSPORT AND ACCESS**

9.5.18 Negligible, low, minor and high significances as categorised can either be beneficial (positive, i.e. reduction in traffic flows), negligible (no real impact) or adverse (negative, i.e. increase in traffic flows). They can be temporary or permanent and have an effect for the short, medium or long term. The definitions of which are as follows:

- A short term effect – an effect that will be experienced for 0-5 years;
- A medium term effect – an effect that will be experienced for 5-15 years; and
- A long term effect – an effect that will be experienced for 15 years onwards.

## **9.6 BASELINE CONDITIONS**

### **Site Description and Context**

9.6.1 The DCO Limits comprises approximately 225 hectares of land located approximately 2.1 kilometres north of the village of Broughton. Junction 4 of the M180 is approximately 4.5 kilometres to the south.

### **Accident Analysis**

9.6.2 A full review of personal injury accident data has been undertaken and is shown within Appendix C of the Transport Statement (Appendix 9.1). This includes the raw data supplied by North Lincolnshire Council.

9.6.3 The full PIC data shows that the location of the incidents are generally sporadic in nature and are not considered to be attributed to a single factor. The majority of incidents appear to have occurred as a result of driver error or misjudgement and not as a result of the layout or alignment of the local highway network. It is concluded that there are no obvious safety patterns or problems at the individual locations assessed.

## **9.7 ASSUMPTIONS AND LIMITATIONS**

9.7.1 A number of assumptions are made when establishing the traffic generation of the site, both during construction and during operation. However, worst case assumptions have been made in a number of instances. For example, the peak construction period has been assessed to derive a worst case assessment of the effects of the construction period.

## **9.8 ASSESSMENT OF EFFECTS**

### **Environmental Assessment: Construction Phase**

9.8.1 This section summarises the potential effects associated with the movement of construction traffic.

#### Traffic Flows

9.8.2 The applicant has advised that the construction period will take approximately 11 months (up to 47 weeks). Construction activities will be carried out Monday to Friday 0700-1800 and between 0800 and 1330 on Saturdays.

## **ENVIRONMENTAL STATEMENT MAIN STATEMENT**

### **TRANSPORT AND ACCESS**

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9.8.3 The construction phase for the solar farm includes the preparation of the site, installing the access tracks, erection of security fencing, assembly and erection of the PV arrays, installation of the inverters/transformers and grid connection.

9.8.4 The construction of the battery energy storage system will include the preparation of the site, installation of the access roads, erection of security fencing, assembly of the battery system, and installation of the switch-room and grid connection.

9.8.5 The components which are required to construct the solar farm will arrive in 40ft containers by 15.4m long articulated vehicles. The candidate PV design includes 356,670 modules. Based on experience elsewhere, the applicant has confirmed that around 1,903 deliveries will be required. Assuming all deliveries arrive within a 47 week period and Monday to Saturday, this equates to, on average, around seven deliveries (14 movements) per day by the largest vehicle.

9.8.6 Inverter stations will be delivered to the site through the construction period. These are likely to be up to 11m in length. The proposed solar farm will have a total of 48 inverters. It is assumed that the inverters will be transported individually due to their weight and as such this would equate to a total of 48 deliveries.

9.8.7 In addition, the substation buildings will be brick built to house the switchgear to facilitate the connection of the solar farm to the underground grid connection cable which forms part of the distribution network. The internal equipment housed within the substation buildings will be delivered on 3No. 10m rigid lorries. The majority of the external equipment located within the 132kV substation compound will be delivered on 6No. 10m rigid lorries with the exception being the 132kV transformer unit which will be delivered on a 15.4m articulated vehicle.

9.8.8 It is likely that the material required for the access tracks will arrive by 10m rigid vehicles. The precise number will depend on the type and the amount of material required, but for the purpose of this assessment we have assumed that one delivery is required per five acres, resulting in a total of 104 deliveries.

9.8.9 A number of front end JCBs will also be required to transport equipment around the site, and to distribute stone as necessary. This is a similar size to a tractor and will either be transported to the site or be driven to the site.

9.8.10 A maximum of up to 100 construction workers are anticipated to be on site during peak times during the construction period. A temporary construction compound will be provided and will provide storage, parking for contractors and turning for HGVs. The location where staff will travel from is unknown at this stage as it will depend on the appointed contractor. However, it is envisaged that a number of the non-local workforce will stay at local accommodation and be transported to the site by minibuses to minimise the impact on the strategic and local highway network.

**ENVIRONMENTAL STATEMENT  
MAIN STATEMENT**

**TRANSPORT AND ACCESS**

9.8.11 In summary, the following heavy goods movements could be associated with the construction period of the solar farm, as set out in **Table 9.5**.

**Table 9.5 Heavy Goods Vehicle Movements (Total Construction Period)**

<b>Activity</b>	<b>Type of Vehicle</b>	<b>Total Number of Deliveries over Construction Period</b>
<b>Solar Farm</b>		
Solar Modules & Mounting Structures	15.4m Articulated	1,903 (3,806 two-way movements)
Inverters	12m Rigid	48 (96 two-way movements)
DNO Substation and Buildings	10m Rigid and 15.4m Articulated	10 (20 two-way movements)
Access Tracks	15.4m Articulated	104 (208 two-way movements)
General	Front End JCB by low loader	4 (8 two-way movements)
<b>Battery Energy Storage System</b>		
Battery Energy Storage Containers	16.5m Articulated	18 (36 two-way movements)
General Deliveries (cables, fencing etc.)	16.5m Articulated and 10m Rigid	65 (130 two-way movements)
Onsite Construction Equipment	16.5m Articulated	10 (20 two-way movements)
Total		2,162 (4,324 two way movements)*
<b>Total Movements per day</b>		<b>8 (16 two way movements)</b>
<b>Total Construction Workers per day</b>		100

\*Deliveries take place over a 47 week period (282 working days)

9.8.12 In addition to the HGV movements identified above, there will also be a small number of construction movements associated with smaller vehicles such as the collection of skips for waste management and the transportation of construction workers and sub-contractors. It is likely that that there could be up to 10-14 LGV movements per day. This includes minibuses transporting construction workers.

9.8.13 Where possible, construction deliveries will be coordinated to avoid HGV movements during the traditional AM peak hour (08:00-09:00) and PM peak hour (17:00-18:00). Due to the site operational hours (07:00-18:00), construction worker travel will occur outside of the peak hours. As such, there is unlikely to be many, if any, peak hour trips associated with the site.

9.8.14 As stated, the two rules set out in the IEMA Guidelines require further assessment where traffic flows/HGVs increase by more than 30% (or 10% for a sensitive area). The addition of 32 HGV movements and between 10-14 LGV movements to the highway network over a daily period will not exceed this threshold. Therefore, there will not be a significant environmental effect as a result of construction vehicle traffic.

## **ENVIRONMENTAL STATEMENT MAIN STATEMENT**

### **TRANSPORT AND ACCESS**

9.8.15 The IEMA Guidelines set out two rules which have been used as threshold impacts to define the scale and extent of this assessment as follows:

- Rule 1: Include highway links where traffic flows will increase by more than 30% (or where the number of HGVs will increase by more than 30%); and
- Rule 2: Include any other specifically sensitive areas where traffic flows have increased by 10% or more.

9.8.16 It is also important to note that during the construction phase the effects assessed are temporary (short to medium term) and not permanent, and this affects the significance attached to them.

9.8.17 In light of the above, all environmental effects in relation to transportation for the construction phases are considered to be negligible.

#### **Environmental Assessment: Operational Phase**

9.8.18 There are anticipated to be around four visits to the site a year (one per quarter) for additional equipment maintenance. These would typically be made by light van or 4x4 type vehicles. Whilst the contractor's compound will have been removed, space will remain within the site on the access tracks for such a vehicle to turn around to ensure that reversing will not occur onto the highway.

9.8.19 As there will only be one vehicle visit for maintenance every three months, it is considered that the effects of the operational phase in terms of transportation will be negligible. The cumulative effect is therefore also considered to be negligible.

#### **Environmental Assessment: Decommissioning Phase**

9.8.20 The equipment of the solar park will have a lifetime of approximately 35 years, upon which they will be replaced. The number of vehicles associated with the decommissioning phase will not exceed the number set out for the construction phase, as set out in Table 9.5.

9.8.21 In light of this, all environmental effects in relation to transportation for the decommissioning phases are considered to be negligible. The effects will also be temporary (short to medium term) and not permanent.

## **9.9 MITIGATION AND MONITORING**

### **Construction Period**

9.9.1 A Construction Traffic Management Plan (CTMP) (Document Ref 7.36 LC TA9.2) will be implemented during the construction phase of the Proposed Development. The aim of the CTMP is to minimise the effect of the construction phase on the highway network. It will contain a package of agreed mitigation measures which will include the following:

- The setup of a booking system to ensure that vehicle arrivals/departures are scheduled to avoid peak traffic periods on the local highway network, and to ensure only one vehicle arrives at a time;
- Installation of signs to direct construction vehicles associated with the development along the route. Delivery drivers, contractors and visitors

- will be provided with a route plan in advance of delivering to site to ensure that vehicles follow the identified route;
- Advisory signs informing contractors and visitors that parking is not permitted on-street on the B1207 or on the site access track;
  - All signage and barriers on the agreed haulage route will be inspected twice daily by the site manager (once in the morning and once at lunchtime), to ensure they are kept in a well maintained condition and located in safe and appropriate locations;
  - A compound area for contractors will be set up on-site including appropriate parking spaces. Contractors and visitors will be advised that parking facilities will be provided on-site in advance of visiting the site and that they should not park on-street;
  - A wheel wash will be provided which hoses down vehicles so that no construction vehicles exiting the site compound will take mud or debris onto the local highway network;
  - A road sweeper will be provided for surrounding local roads along the construction traffic route to alleviate any residual debris generated during the construction phase;
  - The site will be secured;
  - A requirement for engines to be switched off on-site when not in use;
  - Spraying of areas with water supplied as and when conditions dictate to prevent dust;
  - Vehicles carrying waste material off-site to be sheeted;
  - Turning areas will be provided to ensure vehicles can exit the site in a forward gear;
  - Banksmen will be provided at the site access to indicate to construction traffic when it is safe for them to enter and exit the site;
  - All residents of Brigg Road, along the construction traffic route, will be provided with contact details of the Site Manager, which will also be provided on a site-board at the entrance to the site;
  - Site operatives will be encouraged to use sustainable forms of travel, such as walking, cycling, public transport or car sharing where possible;
  - A before and after highway condition survey will be undertaken.

9.9.2 NLC has confirmed that the following licences will be required for the construction period:

- Any works to the construction site access to be undertaken under a Section 184 license (rather than a full Section 278);
- A S171 will be required for the placing construction traffic route signage on the highway. This license covers storing materials on the highway. If installation of signage breaks the highway, a Section 50 license will be required.

### **Operational Phase**

9.9.3 No additional mitigation is required during the operational phase due to the low transport impact of site maintenance.

### **Decommissioning Phase**

9.9.4 No additional mitigation is required during the decommissioning phase beyond what is set out for the construction phase.

## **9.10 SUMMARY OF RESIDUAL EFFECTS**

### **Construction Phase**

9.10.1 All residual environmental effects in relation to transportation for the construction phase are considered to be negligible.

### **Operational Phase**

9.10.2 All residual environmental effects in relation to transportation for the operational phase are considered to be negligible.

### **Decommissioning Phase**

9.10.1 All residual environmental effects in relation to transportation for the decommissioning phase are considered to be negligible.



**ENVIRONMENTAL STATEMENT  
MAIN STATEMENT**

**TRANSPORT AND ACCESS**

**Table 9.6 Summary of Effects, Mitigation and Residual Effects**

<b>Receptor / Receiving Environment</b>	<b>Description of Effect</b>	<b>Nature of Effect</b>	<b>Sensitivity Value</b>	<b>Magnitude of Effect</b>	<b>Geographical Importance</b>	<b>Significance of Effects</b>	<b>Mitigation / Enhancement Measures</b>	<b>Residual Effects</b>
<b>Construction</b>								
A15	Vehicle movements	Temporary	Not Applicable	Not Applicable	Regional	Negligible	Not Applicable	Negligible
A18	Vehicle movements	Temporary	Not Applicable	Not Applicable	Regional	Negligible	Not Applicable	Negligible
B1208 Brigg Road	Vehicle movements	Temporary	Not Applicable	Not Applicable	Regional	Negligible	Not Applicable	Negligible
<b>Operation</b>								
A15	Vehicle movements	Permanent	Not Applicable	Not Applicable	Regional	Negligible	Not Applicable	Negligible
A18	Vehicle movements	Permanent	Not Applicable	Not Applicable	Regional	Negligible	Not Applicable	Negligible
B1208 Brigg Road	Vehicle movements	Permanent	Not Applicable	Not Applicable	Regional	Negligible	Not Applicable	Negligible
<b>Decommissioning</b>								
A15	Vehicle movements	Temporary	Not Applicable	Not Applicable	Regional	Negligible	Not Applicable	Negligible
A18	Vehicle movements	Temporary	Not Applicable	Not Applicable	Regional	Negligible	Not Applicable	Negligible
B1208 Brigg Road	Vehicle movements	Temporary	Not Applicable	Not Applicable	Regional	Negligible	Not Applicable	Negligible
<b>Cumulative and In-combination</b>								

**ENVIRONMENTAL STATEMENT  
MAIN STATEMENT**

**TRANSPORT AND ACCESS**

A15	Vehicle movements	Permanent	Not Applicable	Not Applicable	Regional	Negligible	Not Applicable	Negligible
A18	Vehicle movements	Permanent	Not Applicable	Not Applicable	Regional	Negligible	Not Applicable	Negligible
B1208 Brigg Road	Vehicle movements	Permanent	Not Applicable	Not Applicable	Regional	Negligible	Not Applicable	Negligible

