



Mallard Pass

Solar Farm

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Table of Contents

3.0 Description of the Order limits	3-1
3.1. Order limits Location	3-1
3.2. Landform and Topography	3-3
3.3. Access and Recreation	3-3
3.4. Water Resources	3-5
3.5. Agricultural Land	3-6
3.6. Ecology and Biodiversity	3-6
3.7. Cultural Heritage	3-8
3.8. Air Quality	3-9
3.9. Ground Conditions	3-9

List of Tables

Table 3-1 PRow within the Order limits	3-4
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3.0 Description of the Order limits

3.1. Order limits Location

3.1.1. The purpose of this chapter of the ES is to provide an overview of the Order limits and surrounding area.

3.1.2. The Order limits, as shown on **Figure 1.1 [EN010127/APP/6.3]**, comprises of four different areas, which are broadly defined below. Further detail on the Proposed Development and the operational components can be found in **Chapter 5: Project Description [EN010127/APP/6.1]**, of this ES:

- a. The Solar PV Site – areas within the Order limits that are proposed for solar development, the Onsite Substation and associated ancillary infrastructure, including temporary construction compounds and security fencing;
- b. Mitigation and Enhancement Areas – areas within the Order limits that are proposed for landscape screening, habitat creation and provision of permissive paths;
- c. Highway Works Site - areas beyond the Solar PV Site which have been proposed for cable route connections and temporary/permanent improvements to existing highways to facilitate the construction, operation and maintenance, and decommissioning of the Proposed Development; and
- d. Grid Connection Corridor — area within the Order limits that are proposed for the Grid Connection Cable between the Onsite Substation and the National Grid Ryhall Substation and the new connection at National Grid Ryhall Substation.

- 3.1.3. The extents of the Solar PV Site, Mitigation and Enhancement Areas, Highway Works Site and the Grid Connection Corridor are shown on **Figure 3.1 [EN010127/APP/6.3]**.
- 3.1.4. The Order limits equates to approximately 852ha, with approximately 524.7ha of the Order limits lying within RCC's administrative boundary and the remaining 327.4ha of the Order limits lying within SKDC's administrative boundary.
- 3.1.5. The Grid Connection Corridor consists of a single field containing the National Grid Ryhall Substation and an existing access track. The field (Field 17) is bounded by a hedgerow on all sides. The Highway Works Site consists of the adopted highway extents and associated verge.
- 3.1.6. The Order limits is located at OS grid reference TF0411 / Easting, Northing: 504876,311521 (approximate centre of the Order limits). The maximum extent of land anticipated to be included within the DCO Application is shown on **Figure 3.1** and the Proposed Development will be located within the Order limits.
- 3.1.7. The Grantham - Peterborough (East Coast Main Line) railway line dissects the Order limits on a general north-west to south-east alignment. The Order limits is located to the immediate south, east and west of Essendine and approximately 700m north-east of Ryhall. The north-eastern most edge of Stamford is located approximately 1.4km south-west of the Order limits at its nearest point. The centre of Peterborough is located approximately 16km south-east of the Order limits.
- 3.1.8. The Solar PV Site comprises 54 agricultural fields. Hedges, trees and woodland form the boundaries to the fields within the Solar PV Site. There is

a requirement for highways works between the Strategic Road Network (SRN) and the Order limits to facilitate construction traffic access.

3.1.9. The Solar PV Site and Mitigation and Enhancement Areas are, for the purposes of the EIA process and ease of reference, divided into a series of numbered fields. The plan showing the field number system is provided at **Figure 3.2 [EN010127/APP/6.3]**.

3.1.10. The field numbering system was created earlier in the evolution of the Proposed Development, and due to design changes, two fields were removed from the Order limits. These are fields 23 and 38. The rest of the fields were not renumbered in order to retain the consistency of referencing throughout the ES and supporting documents.

3.1.11. A summary of the baseline environment is provided below with further detail provided within each of the individual environmental topic chapters.

3.2. Landform and Topography

3.2.1. The Order limit's topography ranges between 16 - 67m Above Ordnance Datum (AOD), with the lowest elevation running along the route of the East Coast Mainline railway. The highest elevation is present in the north-western part of the Order limits.

3.3. Access and Recreation

3.3.1. The Order limits is currently accessible from a number of existing field entry points capable of accommodating large agricultural machinery.

3.3.2. In terms of the SRN, the A1, which connects Grantham and Stamford, is located approximately 5.5km west of the Order limits. The A15, which connects Bourne and Peterborough, is located approximately 6.5km east of the Order limits. The A1175 is located approximately 4.5km south of the

centre of the Order limits, which provides a vehicular link between Stamford and Market Deeping and a link between Stamford and Oakham along the A606. The A6121, which connects Ryhall, Essendine and Carlby, separates the north-western extent of the Order limits from the remainder, routing on a general north-east to south-west alignment. The A6121 provides connection to the A1 via Stamford to the south-west of the Order limits and to the A15 via Bourne to the north-east of the Order limits. The B1176 segments the north-westernmost extent of the Order limits and is routed on a general north-south direction between Little Bytham to the north and Ryhall to the south. The B1176 connects to the A6121 at Ryhall.

- 3.3.3. There are five Public Rights of Way (PRoW), and one Long Distance path which cross the Order limits, which are described in **Table 3-1**.

Table 3-1 PRoW within the Order limits

PRoW	Description
Footpath BrAW/7/1	The footpath routes through the easternmost extent of the Order limits in a general north-east to south-west alignment, through the Mitigation and Enhancement Area
Footpath BrAW/9/1	The footpath routes parallel to the north of PRoW footpath BrAW/3/1 crosses the Mitigation and Enhancement Area east-west into the Open Access Land of Braceborough Wood, which is located immediately adjacent to the north-eastern boundary of the Solar PV Site
Footpath Uffi/5/1	The footpath follows the south-western boundary of the Solar PV Site in an east-west direction
Bridleway BrAW/1/1	The bridleway crosses the eastern extent of the Solar PV Site north-south, between the local road to the north and the railway line to the south

PRoW	Description
Bridleway E169/1	The bridleway routes through the north-western extent of the Solar PV Site between the A6121 and B1176 in a general north-west to south-east alignment.
MacMillan Way Long Distance Path	This route follows the south western boundary of the Order limits before crossing through the Order limits for approximately 700m along Rural Lane (Main Street), and continuing along the northern boundary of the southern extent of the Solar PV Site.

3.4. Water Resources

3.4.1. The West Glen River (Environment Agency Waterbody ID:

GB105031055510) runs through the Order limits on a general north-west to south-east alignment. A network of drains, ditches and streams, which follow field boundaries, are also present across the Order limits. A pond is located in the central-eastern area of the Solar PV Site (Field 31).

3.4.2. The Order limits are predominantly located in Flood Zone 1, which is an area classed as having a low risk from fluvial and tidal flooding (less than 1 in 1,000 annual probability, as indicated by the Environment Agency Flood Map for Planning). Smaller areas of Flood Zone 2 (medium risk) and Flood Zone 3 (high risk) are present along the alignment of the West Glen River. The Order limits are predominantly located within an area of very low risk from surface water flooding. There are areas of low to high surface water flood risk associated with the West Glen River and its tributaries.

3.4.3. The West Glen River has a River Basin Management Plan (RBMP) ecological classification of 'Moderate' and an overall Water Framework WFD classification of Poor. Further details are provided within **Chapter 11: Water Resources and Ground Conditions [EN010127/APP/6.1]**, of this ES.

3.5. Agricultural Land

- 3.5.1. An Agricultural Land Classification survey of the Solar PV Site and Mitigation and Enhancement Areas was undertaken in late 2021, and updated in Autumn 2022. The survey results show that the Solar PV Site and Mitigation and Enhancement areas are predominantly Grade 3b (51.5%) with smaller parcels of Grade 3a (30.5%), and Grade 2 (11.7%). The remaining area is made up of Grade 4 (2.1%), and urban (0.4%) with 3.8% not surveyed as this is formed by roads, railways and verges.
- 3.5.2. Further information regarding the agricultural land classification survey that has been undertaken as part of the EIA process can be found in **Chapter 12: Land Use** of this ES [EN010127/APP/6.1].

3.6. Ecology and Biodiversity

- 3.6.1. The Order limits comprise predominantly arable agricultural land and a network of hedgerows, drains and ditches. Areas of improved grassland, species poor semi-improved grassland, semi-improved neutral grassland, tall ruderal vegetation, and scrub are also present. Ancient woodland is present offsite, adjacent to the to the northern, southern and north-western Order limits boundaries. Further details can be found within **Chapter 7: Ecology and Biodiversity** [EN010127/APP/6.1], of this ES.

Statutory Designated Sites

- 3.6.2. Four internationally designated sites are present within 10km of the Order limits:
- a. The Rutland Water Special Protection Area (SPA) and Ramsar Site, which are located approximately 5.6km to the west of the Order limits, and approximately 8.6km from the Solar PV Site.
 - b. Baston Fen SAC is located 4.46 km north-east of the Order limits.

c. Grimsthorpe SAC is located 4.67 km north of the Order limits.

d. Barnack Hills and Holes SAC is located 6.8 km south of the Order limits.

3.6.3. Eight nationally important statutory designated sites are present within 2km of the Order limits. All of these sites are Sites of Special Scientific Interest (SSSI), which include:

a. Ryhall Pasture and Little Warren Verges SSSI

b. Newell Wood SSSI

c. Great Casterton Road Banks SSSI

d. Tolethorpe Road Verges SSSI

e. Tickencote Marsh SSSI

f. Bloody Oaks SSSI

g. East Wood, Great Casterton SSSI; and

h. Clipsham Old Quarry and Pickworth Great Wood SSSI

3.6.4. Further details can be found within **Chapter 7: Ecology and Biodiversity**, of this ES.

Non-statutory Sites

3.6.5. A total of 71 Local Wildlife Sites (LWS) are located within 2 km of Order limits. Of these, 16 are located within the Order limits. These are:

a. Carlby/Essendine Verge

b. Essendine, Dismantled Railway Embankment

- c. Hedge Near North Lodge Farm
- d. Ryhall/Essendine SE of the Freewards (south side)
- e. Ryhall RVNR: Crossroads to the Drift junction (west side)
- f. Essendine, hedgerow S side MacMillan Way
- g. Ryhall verge (B1176): from crossroads to Ryhall Farm Cott track (east side)
- h. The Freewards Woodland Verge (N Side)
- i. Essendine Roadside Verge Nature Reserve
- j. Essendine Verge (NE Side) Near North Lodge Farm
- k. Essendine, Hedgerow N Side Macmillan Way
- l. Carlby to Aunby Road Verges
- m. The Drift Verge, Ryhall (south side)
- n. Ryhall/Essendine hedge SE of the Freewards (south side)
- o. Ryhall Verge: The Drift junction to Ryhall Farm Cott track (west side)
- p. Belmesthorpe Railway

3.7. Cultural Heritage

- 3.7.1. The Order limits is not subject to any designated heritage assets. There is one Scheduled Monument Essendine Castle, along with the Grade II* Listed Building Church of St Mary, which are located approximately 60m and 50m west the Order limits respectively. A total of approximately 112 designated heritage assets are located within a 1km study area around the Order limits.

Further details on these assets can be found in **Chapter 8: Cultural Heritage** of this ES [EN010127/APP/6.1].

3.8. Air Quality

- 3.8.1. The Order limits is not located within an Air Quality Management Area (AQMA). The nearest AQMA, declared for one-hour and annual mean concentrations of Nitrogen Dioxide (NO₂) by SKDC, is located approximately 23km north-west of the Order limits in Grantham. Further details can be found within **Chapter 15: Other Environmental Issues** [EN010127/APP/6.1], of this ES.

3.9. Ground Conditions

- 3.9.1. British Geological Survey (BGS) mapping indicates that the Order limits is underlain by sedimentary rocks of the Inferior Oolite Group to the north-west, overlain by the Great Oolite Group in the centre, which is overlain by Ancholme Group to the south-west.
- 3.9.2. BGS superficial data does not record superficial deposits across a majority of the Order limits; however, where superficial deposits are present, they comprise areas of Alluvium - clay, silt, sand and gravel, and areas of river terrace deposits – sand and gravel. Furthermore, in the east and southern extent of the Order limits, there are areas of head – clay, silt, sand and gravel, and glaciofluvial deposits of mid Pleistocene sand and gravel. Further details can be found within **Chapter 11: Water Resources and Ground Conditions** [EN010127/APP/6.1], of this ES.

