



One Earth Solar Farm

Volume 6.0: Environmental Statement [EN010159]

Volume 2: Aspect Chapters

Chapter 19: Summary of Significant Environmental Effects

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Contents

19. Summary of Significant Environmental Effects	2
19.1 Introduction _____	2
19.2 Summary of Effects _____	2

19. Summary of Significant Environmental Effects

19.1 Introduction

- 19.1.1 This chapter presents a summary of the likely significant environmental effects relating to the Proposed Development during construction, operation and maintenance, and during decommissioning, as detailed in **Volume 2, Aspect Chapters** (Chapters 6 to 18).
- 19.1.2 As detailed in **ES Volume 1, Chapter 2: EIA Methodology [EN010159/APP/6.2]** specific environmental measures relevant to the technical aspects have been identified and have been considered as part of the assessments (i.e. the assessments of likely significant effects have been undertaken with the inclusion of the environmental measures, as these measures form part of the Proposed Development). The technical aspect specific design interventions can be found in the Environmental Measures sections of **Volume 2: Aspect Chapters**.
- 19.1.3 To ensure clarity as to how the Environmental Measures are secured, a **Commitments Register [EN010159/APP/7.15]** has been included within the submission (see **Volume 7: Other Documents**). This Register follows PINS Guidance¹ and identifies how commitments will be secured and implemented, to ensure potential environmental effects arising from the project are mitigated as far as possible, as set out in the technical assessments detailed in **Volume 2: Aspect Chapters**. It is noted that the Commitments Register is a 'live' document that will be updated throughout the DCO process.

19.2 Summary of Effects

- 19.2.1 Taking into account the environmental measures which are included within the Proposed Development, as detailed in **Volume 2, Aspect Chapters** (Chapters 6 to 18), the following aspects have identified likely significant effects during construction, operation and maintenance, and during decommissioning:
- > **ES Volume 2, Chapter 6: Biodiversity [EN010159/APP/6.6];**
 - > **ES Volume 2, Chapter 8: Land and Soils [EN010159/APP/6.8];**
 - > **ES Volume 2, Chapter 10: Cultural Heritage [EN010159/APP/6.10];**
 - > **ES Volume 2, Chapter 11: Landscape and Visual [EN010159/APP/6.11];**
 - > **ES Volume 2, Chapter 14: Carbon and Climate Change [EN010159/APP/6.14];**

¹ Planning Inspectorate (2024) Nationally Significant Infrastructure Projects: Commitments Register. Available at: <https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-commitments-register>

- > **ES Volume 2, Chapter 16: Human Health [EN010159/APP/6.16];** and
- > **ES Volume 2, Chapter 17: Socio-Economics [EN010159/APP/6.17].**

19.2.2 The details of the likely significant effects are detailed in **Table 19.1**.



Table 19.1 Summary of Likely Significant Effects

Technical Topic	Phase	Description of Effect	Likely Significant Effects
Biodiversity	Construction, operation and maintenance, and decommissioning	Coastal and floodplain grazing marsh: habitat creation, enhancement and changes to hydrology, spread of Invasive Non-Native Species (INNS), pollution	Likely significant beneficial effects.
Biodiversity	Construction, operation and maintenance, and decommissioning	Hedgerow: Habitat loss / degradation and habitat creation / enhancement	Likely significant beneficial effects.
Biodiversity	Construction, operation and maintenance, and decommissioning	Ponds: habitat creation, enhancement and changes to hydrology, spread of INNS, pollution	Likely significant beneficial effects.
Biodiversity	Construction, operation and maintenance, and decommissioning	Permanently wet ditch: habitat creation, enhancement and changes to hydrology, spread of INNS, pollution	Likely significant beneficial effects.
Biodiversity	Construction, operation and maintenance, and decommissioning	Other neutral grassland: habitat creation, enhancement and changes to hydrology, spread of INNS, pollution	Likely significant beneficial effects.
Biodiversity	Construction, operation and maintenance, and decommissioning	Other breeding birds: Habitat loss, degradation, disturbance. Habitat creation / enhancement	Likely significant beneficial effects.
Biodiversity	Construction, operation and maintenance, and decommissioning	Water vole: Habitat loss, degradation, fragmentation, disturbance. Habitat creation / enhancement habitat creation / enhancement	Likely significant beneficial effects.



Technical Topic	Phase	Description of Effect	Likely Significant Effects
Biodiversity	Construction, operation and maintenance, and decommissioning	Reptiles: Habitat loss, degradation, fragmentation, disturbance. Habitat creation / enhancement habitat creation / enhancement	Likely significant beneficial effects.
Biodiversity	Construction, operation and maintenance, and decommissioning	Brown hare and Hedgehog: Habitat loss, degradation, fragmentation, disturbance. Habitat creation / enhancement habitat creation / enhancement	Likely significant beneficial effects.
Land and Soils	Operation and maintenance	Very high sensitivity soils: Impact on soil quality	Likely significant beneficial effects. .
Land and Soils	Operation and maintenance	Very high sensitivity soils: Impact on availability of agricultural land	Likely significant adverse effects.
Cultural Heritage	Construction and Decommissioning	Visual and experiential effects of construction and decommissioning activity on the heritage value of Designated Assets at: <ul style="list-style-type: none"> > Pigeoncote and Attached Stable Blocks and Outbuilding at Hall Farm; > Whimpton Moor medieval village and moated site; > Church of St Gregory (grouping); > Roman Vexillation Fortress; > Church of St Leonard (grouping); > Ragnall House, Barn At Ragnall Stables; > Ragnall Hall And Attached Outbuildings; and > Skegby Manor and Pigeoncote. 	Likely significant adverse effects.



Technical Topic	Phase	Description of Effect	Likely Significant Effects
Cultural Heritage	Operation and maintenance	<p>Potential impact on key element of setting which contributes to the value of designated assets at:</p> <ul style="list-style-type: none"> > Whimpton Moor Medieval Village; > Church of St Leonard (grouping); and > Ragnall House Barn at Ragnall Stables > Ragnall Hall and Attached Outbuildings 	Likely significant adverse effects.
Landscape and Visual	Construction	Impact on the landscape character within the Order limits, from a change of use of land use from predominantly agricultural to an active construction site	Likely significant adverse effects.
Landscape and Visual	Construction	<p>Of the 17 published character areas, impact on the following published character areas due to a change of use of land use from predominantly agricultural to an active construction site:</p> <ul style="list-style-type: none"> > ENS PZ01: North Clifton Village Farmlands > TW PZ 20: Dunham on Trent Village Farmlands > TW PZ 44: Fledborough Holme River Meadowlands > MNF PZ 09: East Drayton > MNF PZ 12: Normanton-On-Trent 	Likely significant adverse effects.
Landscape and Visual	Construction	Of the 17 local village character areas, impact on the village character within the following due to a change of use of land use from predominantly agricultural to an active construction site:	Likely significant adverse effects.



Technical Topic	Phase	Description of Effect	Likely Significant Effects
		<ul style="list-style-type: none"> > Fledborough; > North Clifton; > Ragnall; and > Skegby. 	
Landscape and Visual	Construction	<p>Of the 76 worst-case viewpoints considered, introduction of construction activity into views to the following 29 views:</p> <p>Viewpoint 1: View from Trent Valley Way; Viewpoint 4: View from A1133; Viewpoint 8: View from A57; Viewpoint 9a: View from Moor Farm on public bridleway; Viewpoint 9b: View from Moor Farm; Viewpoint 10: View from National Cycle Network; Viewpoint 11: View from public bridleway; Viewpoint 13: View from Moor Lane; Viewpoint 23: View from public byway open to all traffic; Viewpoint 24: View from public footpath; Viewpoint 27b: View from public footpath; Viewpoint 35: View from Skegby Road; Viewpoint 38a: View from public footpath; Viewpoint 38b: View from public footpath; Viewpoint 39: View from Main Street; Viewpoint 40b: View from Hollow Gate Lane; Viewpoint 41: View from public bridleway; Viewpoint 42a: View from public footpath; Viewpoint 42b: View from public footpath; Viewpoint 43: View from public footpath; Viewpoint 44: View from public footpath; Viewpoint 45: View from public footpath; Viewpoint 47b: View from the Church of St Leonard Cemetery; Viewpoint 48: View from public footpath; Viewpoint 49: View from public footpath; Viewpoint 56: View from north of Ragnall; Viewpoint 57: View from A1133; Viewpoint 58a: View from public bridleway; and Viewpoint 58b: View from public bridleway.</p>	Likely significant adverse effects.
Landscape and Visual	Operation (Year 1)	Year 1 of operation (taking account of sapling planting). Impact on the landscape character within the Order limits, from changes and alteration to landform and vegetation cover.	Likely significant adverse effects.



Technical Topic	Phase	Description of Effect	Likely Significant Effects
Landscape and Visual	Operation (Year 1)	<p>Of the 17 published landscape character areas, impact on the following published landscape character areas, in Year 1 of operation (taking account of sapling planting) from changes and alteration to landform and vegetation cover:</p> <ul style="list-style-type: none"> > ENS PZ01: North Clifton Village Farmlands > TW PZ 20: Dunham on Trent Village Farmlands > MNF PZ 09: East Drayton > MNF PZ 12: Normanton-On-Trent 	Likely significant adverse effects.
Landscape and Visual	Operation (Year 1)	<p>Of the 17 local village character areas, impact on the village character within the following, in Year 1 of operation (taking account of sapling planting) from changes and alteration to landform and vegetation cover:</p> <ul style="list-style-type: none"> > Fledborough; and > Ragnall. 	Likely significant adverse effects.
Landscape and Visual	Operation (Year 1)	<p>Of the 76 worst-case viewpoints considered changes and alteration to landform and vegetation cover from operation (taking account of sapling planting) to the following 18 views: Viewpoint 4: View from A1133; Viewpoint 8: View from A57; Viewpoint 9b: View from Moor Farm; Viewpoint 10: View from National Cycle Network; Viewpoint 11: View from public bridleway; Viewpoint 13: View from Moor Lane; Viewpoint 38a: View from public footpath; Viewpoint 40b: View from Hollow Gate Lane; Viewpoint 41: View from public bridleway; Viewpoint 42a: View from public footpath; Viewpoint 42b: Viewpoint 47b: View from the Church of St Leonard Cemetery; View 48 from public footpath; Viewpoint 49: View from public footpath; Viewpoint 56: View from north of Ragnall; Viewpoint 57: View from A1133; Viewpoint 58a: View from public bridleway; and Viewpoint 58b: View from public bridleway.</p>	Likely significant adverse effects.



Technical Topic	Phase	Description of Effect	Likely Significant Effects
Landscape and Visual	Operation (Year 15)	Year 15 of operation (taking account of established and matured planting, along with the proposed grassland forming a continuous sward beneath the modules and around the field margins). Impact on the landscape character within the Order limits, from changes and alteration to landform and vegetation cover.	Likely significant adverse effects.
Landscape and Visual	Operation (Year 15)	Of the 17 published landscape character areas, impact on the following published landscape character areas, in Year 15 of operation (taking account of established and matured planting, along with the proposed grassland forming a continuous sward beneath the modules and around the field margins) from changes and alteration to landform and vegetation cover: <ul style="list-style-type: none"> > TW PZ 20: Dunham on Trent Village Farmlands; and > MNF PZ 09: East Drayton 	Likely significant adverse effects.
Landscape and Visual	Operation (Year 15)	Of the 17 local village character areas, impact on the village character on the following in Year 15 of operation (taking account of established and matured planting, along with the proposed grassland forming a continuous sward beneath the modules and around the field margins) from changes and alteration to landform and vegetation cover: <ul style="list-style-type: none"> > Fledborough; and > Ragnall. 	Likely significant adverse effects.
Landscape and Visual	Operation (Year 15)	Of the 76 worst-case viewpoints considered changes and alteration to landform and vegetation cover from operation (taking account of established and matured planting, along with the proposed grassland forming a continuous sward beneath the modules and around the field margins) to the following 11 views: Viewpoint 4: View from A1133; Viewpoint 9b: View from Moor Farm; Viewpoint 10: View from National Cycle Network; Viewpoint 11: View from public bridleway; Viewpoint 13: View from Moor Lane; Viewpoint	Likely significant adverse effects.



Technical Topic	Phase	Description of Effect	Likely Significant Effects
		41: View from public bridleway; Viewpoint 42a: View from public footpath; Viewpoint 42b: View from public footpath; Viewpoint 56: View from north of Ragnall; Viewpoint 58a: View from public bridleway; and Viewpoint 58b: View from public bridleway.	
Landscape and Visual	Decommissioning	Impact on the landscape character within the Order limits, from a change of use of land use from an agricultural baseline to an active construction site (and therefore activity and machinery of a far greater scale than general farming) as well as the physical loss of landscape features such as riparian vegetation.	Likely significant adverse effects.
Landscape and Visual	Decommissioning	<p>Of the 17 published character areas, impact on the following published character landscape areas within the following due to a change of land use from an agricultural baseline to an active construction site (and therefore activity and machinery of a far greater scale than general farming) as well as the physical loss of landscape features such as riparian vegetation:</p> <ul style="list-style-type: none"> > ENS PZ01: North Clifton Village Farmlands > TW PZ 20: Dunham on Trent Village Farmlands > MNF PZ 09: East Drayton > MNF PZ 12: Normanton-On-Trent 	Likely significant adverse effects.
Landscape and Visual	Decommissioning	Of the 17 local village character areas, impact on the village character of Fledborough due to a change of land use from an agricultural baseline to an active construction site (and therefore activity and machinery of a far greater scale than general farming) as well as the physical loss of landscape features such as riparian vegetation.	Likely significant adverse effects.
Landscape and Visual	Decommissioning	Of the 76 worst-case viewpoints considered, introduction of decommissioning activity into views to the following 10 views: Viewpoint 4: View from A1133; Viewpoint 9b: View from Moor Farm; Viewpoint 10: View from National Cycle Network; Viewpoint 11: View from public bridleway; Viewpoint 13:	Likely significant adverse effects.



Technical Topic	Phase	Description of Effect	Likely Significant Effects
		View from Moor Lane; Viewpoint 35: View from Skegby Road; Viewpoint 41: View from public bridleway; Viewpoint 56: View from north of Ragnall; Viewpoint 58a: View from public bridleway; and Viewpoint 58b: View from public bridleway.	
Carbon and Climate Change	Construction, operation and maintenance, and decommissioning	Whole lifecycle greenhouse gas emissions: contribution to climate change/ transition to net zero.	Likely significant beneficial effects.
Human Health	Operation and maintenance	Climate change mitigation and adaption: impacts of responding to the challenges of climate change	Likely significant beneficial effects.
Human Health	Operation and maintenance	Wider societal infrastructure and resource: contribution towards energy infrastructure and impact on standard of living	Likely significant beneficial effects.
Socio-economics	Construction	Employees on Site	Likely significant beneficial effects.
Socio-economics	Decommissioning	Employees on Site	Likely significant beneficial effects.



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