



Botley West Solar Farm

Preliminary Environmental Information Report

Volume 1

Chapter 20: Summary of Significant Effects

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Approval for issue

Christopher Leconte

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Prepared by:

RPS
20 Western Avenue,
Milton Park, Abingdon,
Oxfordshire, OX14 4SH
United Kingdom

Prepared for:

Photovolt Development Partners GmbH,
on behalf of SolarFive Ltd.

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Glossary

Term	Meaning
The Applicant	SolarFive Ltd
The Project	The Botley West Solar Farm (Botley West) Project

Abbreviations

Abbreviations	Meaning
EIA	Environmental Impact Assessment
ES	Environmental Statement
GHG	Greenhouse Gas
IEMA	Institute of Environmental Management and Assessment
PEIR	Preliminary Environmental Information Report

20 Summary of Significant Effects

20.1 Introduction

- 20.1.1.1 This chapter provides a summary of the likely significant effects (adverse and beneficial) of the Project based on the preliminary findings of the Environmental Impact Assessment (EIA) process undertaken to date. Whilst this chapter sets out only the likely significant effects and cumulative significant effects in EIA terms, the detailed assessments are provided in the individual topic chapters (Chapters 7 to 19) of this Preliminary Environmental Information Report (PEIR). The assessment methodology is set out in Chapter 4: Approach to Environmental Assessment.
- 20.1.1.2 The PEIR has been undertaken in parallel with the design process and development of the embedded and further mitigation identified within Chapters 7-18. A number of measures have been embedded within the design of the Project to mitigate potential adverse environmental effects. Where required, further mitigation measures are identified within topic chapters. These are measures that could further prevent, reduce and, where possible, offset adverse effects on the environment.
- 20.1.1.3 Residual effects are defined as those effects that remain following the implementation of mitigation measures (embedded mitigation and where applicable further mitigation).

20.2 Summary of Significant Effects

- 20.2.1.1 A summary of the identified significant residual effects (adverse and beneficial) post mitigation for each topic is presented in Table 20.1.
- 20.2.1.2 The conclusions are based on preliminary information available at the time of preparing the PEIR.

Table 20.1: Significant residual effects during the construction, operation and decommissioning phase of the Project

Description of resource/receptor and effect	Phase ^a			Magnitude of impact	Sensitivity of the receptor	Residual effect
	C	O	D			
Historic Environment						
Impacts on designated heritage assets as a result of change within their setting	✓	✓	✓	C: Up to Low O: Up to Low D: Up to Low	C: Up to High O: Up to High D: Up to High	Up to Moderate adverse
Cumulative effect: Overall, the magnitude of the adverse impact is up to low and the sensitivity of the receptor is up to high. The effect will, therefore, be of up to moderate adverse significance, which is significant. However, as stated in Chapter 7: Historic Environment there is a level of uncertainty attached to this assessment of significance, as it is anticipated that the refinement of the Project design will enable the magnitude of impact to be reduced and the consequent level of effect to also be reduced to a point where it is no longer significant.						
Landscape and Visual Resources						
Three significant visual effects at winter Year 1 during operation and maintenance from views available at Representative Viewpoints 5b, 13 and 50. By Year 15 these effects would not be significant. There would be significant effects on users of public rights of way within or immediately adjacent to the Project during operation and maintenance, at completion. By Year 15 once planting matures these effects would not be significant. For the purpose of Landscape and Visual assessment, any effects with a significance level of Moderate or less are not considered to be significant in terms of the EIA Regulations.						
Ecology and Nature Conservation						
The impact of temporary and permanent habitat loss on wintering birds during construction of the Project.	✓			Wintering bird assemblage Medium	Wintering bird assemblage Medium	Wintering bird assemblage Moderate adverse
The impact of habitat creation during construction of the Project	✓			Nationally designated sites Low Locally designated sites	Nationally designated sites Very high	Nationally designated sites Moderate beneficial

Description of resource/receptor and effect	Phase ^a			Magnitude of impact	Sensitivity of the receptor	Residual effect
	C	O	D			
				Low	Locally designated sites	
				Ancient woodland	Very high	Locally designated sites
				Low	Ancient woodland	Moderate beneficial
				Hedgerows HPI	Very high	
				Medium	Hedgerows HPI	Ancient woodland
					Medium	Moderate beneficial
				Waterbodies HPI		
				Medium	Waterbodies HPI	
					Medium	
				Breeding bird assemblage		Hedgerows HPI
				Medium	Breeding bird assemblage	Moderate beneficial
					Medium	
				Wintering bird assemblage		
				Medium	Wintering bird assemblage	Waterbodies HPI
					Medium	Moderate beneficial
				Great crested newt		
				Medium	Great crested newt	Breeding bird assemblage
					Medium	Moderate beneficial
				Bat species assemblage		
				Medium	Bat species assemblage	
					Medium	Wintering bird assemblage

Description of resource/receptor and effect	Phase ^a			Magnitude of impact	Sensitivity of the receptor	Residual effect
	C	O	D			
					Dormice Medium	Moderate beneficial
						Great crested newt Moderate beneficial
						Bat species assemblage Moderate beneficial
						Dormice Moderate beneficial
Cumulative effects: The impact of habitat loss on wintering birds during construction	✓			Wintering bird assemblage Medium	Wintering bird assemblage Medium	Wintering bird assemblage Moderate adverse
Hydrology and Flood Risk						
No significant residual effects on Hydrology and Flood Risk are predicted during construction, operation and decommissioning of the Project.						
Ground Conditions						
No significant residual effects on Ground Conditions are predicted during construction, operation and decommissioning of the Project. Where Moderate adverse effects are identified, these will be de-risked with appropriate design and/or mitigation measures.						

Description of resource/receptor and effect	Phase ^a			Magnitude of impact	Sensitivity of the receptor	Residual effect
	C	O	D			
Traffic and Transport						
No significant residual effects on Traffic and Transport are predicted during construction, operation and decommissioning of the Project.						
Noise and Vibration						
No significant residual effects on Noise and Vibration are predicted during construction, operation and decommissioning of the Project.						
Climate Change						
The impact of GHG emissions arising from the operation of the Project.		✓		-617,826 tCO ₂ e to -5,655,882 tCO ₂ e (avoided emissions)	High	Beneficial effect (Significant)
Socio Economics						
The impact of employment generation on unemployment rates in the study area during construction	✓	✓	✓	C: Medium D: Low	C: Medium D: Medium	Moderate beneficial (Significant)
The impact of direct investment, supply chain investment and employment generation.	✓	✓	✓	C: Medium O: Low D: Low	C: Low O: Low D: Low	Moderate beneficial (Significant)
The significance of the effect on the tourism study area for Change in Visitor Economy is considered to be Moderate Adverse which is significant. Based on the wider study area, however, the impact on tourism is likely to be Minor Adverse and not significant in comparison to the total tourism value of the area.						
Human Health						
Open space, leisure and play		✓		O: Low	O: High	Moderate beneficial (Significant)
Education and training	✓		✓	C: Low D: Low	C: High D: High	Moderate beneficial (Significant)

Description of resource/receptor and effect	Phase ^a			Magnitude of impact	Sensitivity of the receptor	Residual effect
	C	O	D			
Employment and income	✓	✓	✓	C: Low O: Low D: Low	C: High O: High D: High	Moderate beneficial (Significant)
Wider societal infrastructure and resources		✓		Medium	High	Moderate beneficial (Significant)
Agricultural Land Use and Public Rights of Way						
The temporary disruption or reduced access to PRow (footpaths and bridleways).	✓			C: Medium	C: Medium (footpaths) to high (bridleways)	C: Moderate adverse (footpaths and bridleways) (Significant)
Cumulative effects: The permanent loss of BMV agricultural land.	✓			C: High	C: Very high	C: Major adverse
Cumulative effects: The temporary disruption or reduced access to PRow (footpaths and bridleways).	✓			C: Medium	C: Medium (footpaths) to high (bridleways)	C: Moderate adverse (footpaths and bridleways) (Significant)
Waste and Resources						
Based on an indicative assessment, significant effects are considered unlikely and the full assessment will be provided for the ES.						

a C=construction, O=operation and maintenance, D=decommissioning

20.3 References

Institute of Environmental Management and Assessment (IEMA) (2017) The Environmental Impact Assessment Guide to: Assessing Greenhouse Gas Emissions and Evaluating their Significance.