

Environmental Statement: Chapter 14 – Summary and Residual Effects

Development of National Significance
Pre-Application Consultation

Alaw Môn Solar Farm

Land west of the B5112, 415m south of Llyn Alaw, 500m east
of Llantrisant and 1.5km west of Llannerch-y-Medd, Anglesey

October 2023



14.0 SUMMARY AND RESIDUAL EFFECTS

Introduction

- 14.1 This chapter summarises the mitigation measures and residual effects identified in each of the technical assessments included in the ES, which has been prepared to accompany an application for a Development of National Significance ('DNS') for a ground-mounted solar photovoltaic farm, with a generating capacity of approximately 160 megawatts (MW) and a battery energy storage system facility, together with associated infrastructure on land to the west of the B5112 and to the south of Llyn Alaw at Llantrisant, Anglesey.

Table 14.1: Significance Table

Phase	Effect/ Receptor	Mitigation	Residual Significance
Cultural Heritage (Chapter 6)			
Construction	Truncation/loss of buried archaeological remains of possibly-prehistoric curvilinear and discrete features	Archaeological work: preservation by record	Not Significant
	Truncation/loss of buried archaeological remains of a possibly-prehistoric ring ditch		
	Truncation/loss of buried archaeological remains of possibly-prehistoric enclosures, pits and postholes		
	Truncation/loss of buried archaeological remains of historic land management features		
Operational	Change to part of the setting of Cors-y-Bol Bronze Age burial mound Scheduled Monument	None required	Not Significant
Landscape and Visual Effects (Chapter 7)			
Construction	Effects on Fields	Implementation of measures set out in the Construction Environmental Management Plan ('CEMP')	Moderate Adverse
	Effects on Site Character		Moderate-Minor Adverse
	Effects on Users of NCR 5 (Viewpoint 4A)		Moderate Adverse
	Effects on Users of PRoW 47/037/1 (Viewpoint 10)		Moderate-Minor Adverse
	Effects on Users of ProW 25/028/1 (Viewpoint 12)		Major-Moderate Adverse
	Effects on Users of ProW 25/028/1 (Viewpoint 13)		Major-Moderate Adverse
	Effects on Users of Minor Road (Viewpoint 15)		Moderate Adverse
	Effects on Users of ProW 47/038/1 (Viewpoint 16)		Moderate Adverse
	Effects on Residents of Gorsgoch	Implementation of measures set out in the CEMP. Ensure no compounds, welfare facilities or stockpiles are located near to property.	Moderate Adverse
	Effects on Residents of Pennant		Moderate Adverse
Operational	Effects on Fields	Proposed planting and management and maintenance of field boundary vegetation to enhance screening.	Moderate-Minor Adverse
	Effects on Site Character	Proposed planting and management and maintenance of field boundary vegetation to enhance screening.	Minor Adverse
	Effects on Watercourses & Water Features	Proposed landscape buffers to existing ponds and creation of habitat ponds and wet meadow.	Major-Moderate to Moderate Beneficial

Table 14.1: Significance Table

Phase	Effect/ Receptor	Mitigation	Residual Significance
	Effects on Trees & Woodland	Proposed planting and management and maintenance of woodland to enhance screening and landscape character.	Major-Moderate Beneficial
	Effects on Users of NCR 5 (Viewpoint 4A)	Proposed planting and management and maintenance of field boundary vegetation to enhance screening.	Minor Adverse
	Effects on Users of PRoW 47/037/1 (Viewpoint 10)	Proposed woodland planting, plus planting and management and maintenance of field boundary vegetation to enhance screening.	Moderate-Minor Adverse
	Effects on Users of PRoW 25/028/1 (Viewpoint 12)	Proposed woodland planting, plus planting and management and maintenance of field boundary vegetation to enhance screening.	Moderate Adverse
	Effects on Users of PRoW 25/028/1 (Viewpoint 13)	Planting and management and maintenance of field boundary vegetation to enhance screening	Moderate Adverse
	Effects on Users of PRoW 47/038/1 (Viewpoint 16)	Planting and management and maintenance of field boundary vegetation to enhance screening	Minor Adverse
	Effects on Residents of Pennant	Proposed woodland planting, plus planting and management and maintenance of field boundary vegetation to enhance screening	Minor Adverse
	Effects on Residents of Gorsgoch	Proposed woodland planting, plus planting and management and maintenance of field boundary vegetation to enhance screening	Moderate to Minor Adverse
Biodiversity (Chapter 8)			
Construction	Wintering birds (Pond 11)	Design mitigation and timing of work to avoid disturbance	Neutral
Operational	Wintering birds (Pond 11)	Design mitigation and timing of work to avoid disturbance	Neutral
Water Environment (Chapter 9)			
Construction	Effects on external flood risk during construction	None required	Negligible
	Effects resulting from increase in surface water runoff rates during construction	Compliance with BS6031:198 'The British Standard Code of Practice for Earthworks'	
	Effects resulting from potential remobilisation of existing contamination on surface water (Alaw Reservoir) and groundwater	None required	
	Effects resulting from potential contamination arising from general construction activities on surface water and groundwater	Implementation of measures set out in the CEMP	

Table 14.1: Significance Table

Phase	Effect/ Receptor	Mitigation	Residual Significance
Operational	Effects resulting from potential contamination from accidental or process discharges on surface water and groundwater	Implementation of the surface water drainage strategy and the double-skinned containers	Negligible to Minor Beneficial
	Effects resulting from incorporation of appropriate maintenance buffers to watercourses	Planting in the buffers will ensure they do not prohibit access to the watercourses.	Negligible
	Effects on risk of external flood risk to the Development once operational	None required	Negligible
	Effects on risk of the increase in surface water runoff rates from the Development	Implementation of surface water drainage strategy and Landscape and Environmental Management Plan and the absence of typical farming activities	Negligible to Minor Beneficial
Transport and Access (Chapter 10)			
Construction	Effects on Road User Safety	Implementation of measures set out in the Construction Traffic Management Plan	Minor Adverse
	Effects on Severance of Communities		Negligible
	Effects on Driver and Passenger Delay		Negligible
	Effects on Non-Motorised User Delay		Negligible
	Effects on Non-Motorised User Amenity		Minor/Moderate Adverse
	Effects on Hazardous Loads		Negligible
Operational	Effects on Road User Safety	None required	Negligible
	Effects on Severance of Communities		
	Effects on Driver and Passenger Delay		
	Effects on Non-Motorised User Delay		
	Effects on Non-Motorised User Amenity		
	Effects on Hazardous Loads		
Air Quality (Chapter 11)			
Construction	Construction traffic emissions upon designated ecological sites	None	Negligible
Noise and Vibration (Chapter 12)			
Construction	Effects from Construction Noise	None required, but measures set out in the CEMP to minimise effect	Negligible
	Effects from Construction Vibration – Residential Receptors		
	Effects from Construction Vibration – Nantnog Geological SSSI		
Operation	Effects from Operational Plant Noise	Noise Limiting Planning Condition	Negligible
Agricultural Land (Chapter 13)			
Construction and Operation	Effects on Grade 2 agricultural land (very high sensitivity)	Implementation of sustainable use of soil on the Site as set out in CEMP and FSMP	Negligible
	Effects on Subgrade 3a agricultural land (high sensitivity)	Implementation of mitigation for sustainable use of soil on the Site in as set out in CEMP and FSMP	Negligible

Table 14.1: Significance Table

Phase	Effect/ Receptor	Mitigation	Residual Significance
	Effects on Subgrade 3b agricultural land (medium sensitivity)	Implementation of mitigation for sustainable use of soil on the Site as set out in CEMP and FSMP	Minor Adverse
	Effects on Grade 4 agricultural land (low sensitivity)	Implementation of mitigation for sustainable use of soil on the Site as set out in CEMP and FSMP	Negligible
	Effects on full-time farm businesses	None required	Negligible
	Effects on part-time farm businesses	None required	Negligible

Interactive Effects

- 14.2 Regulation 4 (2) states that an ES must include a description of the aspects of the environment likely to be significantly affected by the Development and the interrelationship between these effects. There is no published methodology for determining the significance of interactive or synergistic effects. Combining effects with respect to one environmental discipline with another has to be qualitative and is necessarily based on judgment. Therefore, a matrix system has been used to indicate where such effects would likely occur for the construction and operational phases, highlighting where effects occur to a common receptor. This has been informed by the residual effects of the Development (as identified above in Table 14.1) and professional judgment. The findings of this exercise are set out in Table 14.2 below.

Table 14.2: Interactive Effects

Effect	Local Population and Site Users	Landscape and Views	Users of the Local Road Network	Biodiversity
Construction				
Views of vehicles and machinery being used during the construction period.	*		*	*
Disruption to users of the local road network.	*	*		*
Construction dust.	*			*
Construction noise (plant and machinery).	*	*		
Creation of construction employment.		*		*
Operation				
Enhanced planting and habitat provision	*	*		*
Views of the Development	*	*		
Effects to the highway network (fear and intimidation)	*		*	*
Air quality from traffic associated with the operation of the Development.	*	*		*

*indicates where a significant effect may occur.

- 14.3 Appropriate mitigation during the construction phase has been identified in the ES as necessary, such as best practice measures to reduce or eliminate potential adverse environmental effects of construction as far as possible. Furthermore, Chapter 5 Construction Methodology and Phasing and Appendix 5.1 Outline Construction Environmental Management Plan propose a programme and approach to works which will ensure that the Development would be implemented in the most efficient and least intrusive manner. This includes measures set out and secured through the implementation of a detailed CEMP for the Development (see Chapter 5 for further details). Relevant legislative requirements would also be adhered to.
- 14.4 During the construction and operational phases of the Development, it is considered that interactions could potentially occur as set out in Table 14.2. It is considered that interactive effects during construction on the surrounding area will be minor and not significant. Any significant adverse effects would be temporary in duration and are likely to be associated only with the peak periods of construction activity. It is considered that the interactive effects during operation of the Development on the surrounding area will be minor and not significant.

Summary/Conclusions

- 14.5 The Development will result in the following significant beneficial residual effects:

- Major-moderate to moderate beneficial landscape effects on watercourses and water features in during the operational phase; and
- Major-moderate beneficial landscape effects on trees and woodland during the operational phase.

14.6 The Development will result in the following significant adverse residual effects:

- Moderate adverse effects on fields; the Site itself; users of NCR5; users of PRow 47/038/1; and users of the minor road through the Site during the construction phase; and
- Major-Moderate adverse effects on users of the PRow 25/028/1 and residents of Traian, Pennant and Gorsgoch during the construction phase; and
- Moderate adverse effects on users of PRow 25/028/1 during the operational phase.