



BEACON FEN ENERGY PARK

Planning Inspectorate Reference: EN010151

Chapter 17 – Summary of Environmental Effects
[Document Reference: ST19595-REP-002]
January 2024



Revision History

Revision	Revision date	Details	Authorized	Name	Position

List of Outstanding Issues and Information

Outstanding issue/info.	Section/Paragraph	Responsibility	Action

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17. Summary of Environmental Effects

17.1.1 Table 17.1 within this chapter summarises the likely significant residual effects of the Proposed Development on the receptors considered within each environmental assessment set out within this PEIR, reporting their impact and proposed mitigation.

Table 17.1 Preliminary Summary of Significant Environmental Effects

ISSUE	DESCRIPTION OF IMPACT	GEOGRAPHICAL SIGNIFICANCE							IMPACT	NATURE	MITIGATION MEASURES
		I	N	R	C	D	P	L			
LANDSCAPE & VISUALS											
Landscape Character of the Site	Operation (year 15): Change to the landscape character of the site							X	Moderate Adverse	Lt, R	Mitigation planting along the perimeter and within the Solar Array Area alongside replacement planting within Cable Corridor Area.
Residential receptor - Ewerby Thorpe Farm	Operation (year 15): Change in the views							X	Moderate Adverse	Lt, R	Mitigation planting along the perimeter of the Beacon Fen Energy Park.
Residential receptor - Gashes Barn	Operation (year 15): Change in the views							X	Moderate Adverse	Lt,R	Mitigation planting along the perimeter of the Beacon Fen Energy Park.
ECOLOGY											
All LWS within 2 km	Operation: Reduced application of agricultural chemicals.				X				Low Beneficial	Lt, R	N/A
Standing Water	Operation: Reduced application of agricultural chemicals.				X				Low Beneficial	Lt, R	N/A
Habitats -General	Operation: Improvements to habitats through Biodiversity Net Gain.				X				Medium Beneficial	Lt, R	N/A
Wetland Habitats and Connected LWS	Operation: Reduced application of agricultural chemicals.				X				Low Beneficial	Lt, R	N/A
Invertebrates	Operation: Reduced application of agricultural chemicals.				X				Low Beneficial	Lt, R	N/A

ISSUE	DESCRIPTION OF IMPACT	GEOGRAPHICAL SIGNIFICANCE						IMPACT	NATURE	MITIGATION MEASURES	
		I	N	R	C	D	P				L
CULTURAL HERITAGE											
Remains of medieval monastery, moated manor house, fishponds and post-medieval garden, a Scheduled Monument (NHLE 1008317)	Operation: Long term but temporary impact to the setting of the asset.		X						Moderate Adverse	Lt, R	To be determined following further investigation
Kyme Tower, a Grade I Listed Building (NHLE 1204786)	Operation: Long term but temporary impact to the setting of the asset.		X						Moderate Adverse	Lt, R	To be determined following further investigation
Church of St Mary and All Saints, a Grade II* Listed Building (NHLE 1061749)	Operation: Long term but temporary impact to the setting of the asset.		X						Moderate Adverse	Lt, R	To be determined following further investigation
Church of St Oswald, Howell, a Grade II* Listed Building (NHLE 1061833)	Operation: Long term but temporary impact to the setting of the asset.		X						Moderate Adverse	Lt, R	To be determined following further investigation
ACCESS & TRAFFIC											

No Significant Effects

ISSUE	DESCRIPTION OF IMPACT	GEOGRAPHICAL SIGNIFICANCE						IMPACT	NATURE	MITIGATION MEASURES	
		I	N	R	C	D	P				L
NOISE & VIBRATION											
Effect of increased noise levels from the Proposed Development	Operation: Long term impact on the nearby noise sensitive receptors during the day and night during the operational phase due to industrial noise from electrical components installed.							X	Substantial Adverse	Lt, R	Use of barriers, change in equipment type and location will be developed in a mitigation plan.
WATER RESOURCES & FLOOD RISK											
No Significant Effects											
CLIMATE CHANGE											
Greenhouse Gas (GHG) Emissions	Construction: Project lifecycle modules A1 through to A5	X							Moderate Adverse	Lt, Ir	Mitigation may include, inter alia: <ul style="list-style-type: none"> • Sourcing materials locally where possible to reduce transport miles; • Identifying lower carbon options as part of any procurement process where technically and economically viable to do so; • Using local employees and contractors where possible to reduce travel requirements; • Using more efficient, modern construction vehicles and equipment where available; • Using low carbon fuels as far as possible (electric vehicles, blends of biodiesel etc);

ISSUE	DESCRIPTION OF IMPACT	GEOGRAPHICAL SIGNIFICANCE							IMPACT	NATURE	MITIGATION MEASURES
		I	N	R	C	D	P	L			
											Reusing materials, minimising waste and recycling where possible.
	Operation: Project lifecycle modules B1 (Use) through to B7 (operational water use) and includes the operational energy use [B6]	X							Beneficial	Lt, Ir	Electricity production in the UK is a significant source of the UK's carbon emissions based on our current mix of technologies generating electricity at the utility scale. This development offsets the emissions associated with non-renewable methods of electricity generation and therefore mitigates the impact of climate change.
	Decommissioning: Assuming the decommissioning emissions are approximately equivalent to the construction phase emissions would represent a worst-case scenario	X							Moderate Adverse	Lt, Ir	Assuming no big technological breakthroughs in work practice, machinery or equipment use over the life of the project, similar emissions will be recorded. However, over the extended project lifetime it is highly likely that there will be some (or many) technological improvements and hence greater mitigation options available.

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No Significant Effects

ISSUE	DESCRIPTION OF IMPACT	GEOGRAPHICAL SIGNIFICANCE							IMPACT	NATURE	MITIGATION MEASURES
		I	N	R	C	D	P	L			
SOILS & AGRICULTURAL LAND											
Loss of Agricultural Land	Construction Phase of Solar Array Area				X	X	X	X	Moderate or Major Adverse	Lt, R	Soil Management Plan implementing best practice guidance on soil handling.
	Operational Phase of Solar Array Area				X	X	X	X	Moderate or Minor	Lt, R	
	Decommissioning of Solar Array Area				X	X	X	X	Moderate or Minor	Lt, R	
SOCIO-ECONOMIC											
Boston Borough workforce	Construction: Generation of local employment					X	X	X	Moderate Beneficial	St, R	Enhancement measures: LEP
AIR QUALITY											

No Significant Effects

Key:

Geographical Significance: I = International N = National R = Regional C = County D = District P = Parish L = Low to Local

Nature: St = Short Term Mt = Medium Term Lt = Long Term R = Reversible Ir = Irreversible