

SUNNICA ENERGY FARM

EN010106

Volume 6

Environmental Statement

6.2 Appendix 6A: Relevant Legislation and Policy for Climate Change

APFP Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009



Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

Sunnica Energy Farm

Environmental Statement

Appendix 6A: Relevant Legislation and Policy for Climate Change

Regulation Reference:	Regulation 5(2)(a)
Planning Inspectorate Scheme EN010106	
Reference	
Application Document Reference	EN010106/APP/6.2
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Table of contents

Chap	ter		Pages
1 1.1		ose of this appendix	1 1
2 2.1 2.2 2.3	Legis Polic	onal Legislation, Policy and Guidance slation y ance	2 2 2 13
3 3.1	Loca Polic	al Legislation, Policy and Guidance	14 14
4	Refe	rences	15
Table	of Ta	ables	
Table		Relevant NPS requirements for the climate change assessment Relevant Draft NPS requirements for the climate change assessment Relevant NPPF requirements for the climate change assessment	8



1 Introduction

1.1 Purpose of this appendix

- 1.1.1 This ES appendix identifies and describes the legislation, policy and supporting guidance considered relevant to the assessment of the likely significant effects of the Scheme on climate change.
- 1.1.2 Legislation and policy are considered at national and local levels.
- 1.1.3 This ES appendix does not assess the Scheme against legislation and policy instead the purpose of considering legislation and policy in the EIA is twofold:
 - a. to identify legislation and policy that could influence the sensitivity of receptors (and therefore the significance of effects) and any requirements for mitigation; and
 - b. to identify legislation and policy that could influence the methodology of the EIA. For example, a policy may require the assessment of an impact or the use of a specific methodology.
- 1.1.4 The following sections identify and describe the legislation, policy and supporting guidance considered specifically relevant to the climate change assessment.



2 National Legislation, Policy and Guidance

2.1 Legislation

- 2.1.1 The following legislation is related to climate change and is relevant to the climate change assessment:
 - a. Climate Change Act 2008 (Ref 1);
 - b. Climate Change Act 2008 (2050 Target Amendment) Order 2019 (Ref 2);
 - c. Carbon Budgets Order (2009) (Ref 3); and
 - d. The Carbon Budget Order 2021 (Ref 4).

2.2 Policy

2.2.1 The national planning policies considered relevant identify the requirement for consideration of climate change resilience. Climate projections should be analysed and appropriate climate change adaptation measures considered throughout the design process. Specific climate change risks identified within these policies include flooding, drought, coastal change, rising temperatures and associated damage to property and people.

National Policy Statements

- 2.2.2 The Scheme's proposed energy generating technology is not currently specifically referenced by a National Policy Statement (NPS). However, the EIA takes account of the following NPSs, which are considered to be matters that will be important and relevant to the Secretary of State's decision as to whether to grant a DCO for the Scheme:
 - a. Overarching National Policy Statement for Energy (EN1) (Ref 5),
 - b. National Policy Statement for Renewable Energy Infrastructure (EN-3) (Ref 6), and
 - c. National Policy Statement for Electricity Networks Infrastructure (EN-5) (Ref 7).
- 2.2.3 The NPSs set out the Government's energy policy, the need for new infrastructure and guidance for determining an application for a DCO. The NPSs include specific criteria and issues which should be covered by applicants' in their assessments of the effects of their scheme, and how the decision maker should consider these impacts.
- 2.2.4 The relevant NPS requirements, together with an indication of where in the ES chapter the information provided to address these requirements, are provided in **Table 2-1**:. NPS EN-3 contains a section on climate change adaptation in Section 2.3, but this is not relevant to the Scheme. Therefore, **Table 3-1** only lists relevant NPS requirements from NPS EN-1 and NPS EN-5.



Table 2-1: Relevant NPS requirements for the climate change assessment

Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES chapter is information provided to address this
	NPS EN-1	
Paragraph 2.2.6	However, the UK needs to wean itself off such a high carbon energy mix: to reduce greenhouse gas emissions, and to improve the security, availability and affordability of energy through diversification. Under some of the illustrative 2050 pathways, electricity generation would need to be virtually emission-free, given that we would expect some emissions from industrial and agricultural processes, transport and waste to persist. By 2050, we can expect that fossil fuels will be scarcer, but will still be in demand, and that prices will therefore be far higher. Further, the UK's own oil and gas resources will be depleting and, worldwide, the costs and risks of extracting oil in particular will increase.	
Paragraph 2.2.9	To prepare for the impacts of climate change, the Climate Change Act 2008 also sets out a statutory framework for adapting to climate change, with the Government committed to producing a statutory climate change adaptation programme in 2012 (which will be updated on five-yearly cycles). To lead and co-ordinate work in preparation for this, the Government has established the Adapting to Climate Change Programme10, which includes: a. undertaking a UK Climate Change Risk Assessment; and b. using the "Adaptation Reporting Power" to require certain public bodies and statutory undertakers to set out the risks to their work from a changing climate and what they are doing to manage these risks.	The potential impacts on the Scheme as a result of a changing climate, and associated mitigation measures are outlined in Section 6.7 and Section 6.8 of Chapter 6 : Climate Change of this Environmental Statement [EN010106/APP/6.1] .
Paragraph 3.4.5	Paragraph 3.4.1 above sets out the UK commitments to sourcing 15% of energy from renewable sources by 2020. To hit this target, and to largely decarbonise the power sector by 2030, it is necessary to bring forward new renewable electricity generating projects as soon as possible. The need for new renewable electricity generation projects is therefore urgent.	Chapter 6: Climate Change of this Environmental Statement [EN010106/APP/6.1] concludes that the renewable energy generation of the Scheme overall is considered to have a major beneficial effect on the climate, and outlines the role solar energy generation has to play in the transition to a low carbon economy in line with UK government targets.
Paragraph 4.8.3	To support planning decisions, the Government produces a set of UK Climate Projections and is developing a statutory National Adaptation Programme. In addition, the Government's Adaptation Reporting Power will ensure that reporting authorities (a defined list of public bodies and statutory undertakers,	UKCP18 climate projections have been used to identify potential future climate change impacts on the Scheme. The potential impacts of climate change on the Scheme, and associated mitigation measures, are outlined in



Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES chapter is information provided to address this
	including energy utilities) assess the risks to their organisation presented by climate change. The IPC may take into account energy utilities' reports to the Secretary of State when considering adaptation measures proposed by an applicant for new energy infrastructure.	Sections 6.7, 6.8 and 6.9 of Chapter 6: Climate Change of this Environmental Statement [EN010106/APP/6.1] .
Paragraph 4.8.4	In certain circumstances, measures implemented to ensure a scheme can adapt to climate change may give rise to additional impacts, for example as a result of protecting against flood risk, there may be consequential impacts on coastal change	No additional impacts have been identified as a result of the climate change mitigation measures presented in Chapter 6: Climate Change of this Environmental Statement [EN010106/APP/6.1] .
Paragraph 4.8.5	New energy infrastructure will typically be a long-term investment and will need to remain operational over many decades, in the face of a changing climate. Consequently, applicants must consider the impacts of climate change when planning the location, design, build, operation and, where appropriate, decommissioning of new energy infrastructure. The ES should set out how the proposal will take account of the projected impacts of climate change. While not required by the EIA Directive, this information will be needed by the IPC.	The potential impacts of climate change on the Scheme, and associated mitigation measures, are outlined in Sections 6.7, 6.8 and 6.9 of Chapter 6: Climate Change of this Environmental Statement [EN010106/APP/6.1] .
Paragraph 4.8.6	The IPC should be satisfied that applicants for new energy infrastructure have taken into account the potential impacts of climate change using the latest UK Climate Projections available at the time the ES was prepared to ensure they have identified appropriate mitigation or adaptation measures. This should cover the estimated lifetime of the new infrastructure. Should a new set of UK Climate Projections become available after the preparation of the ES, the IPC should consider whether they need to request further information from the applicant.	UKCP18 climate projections have been used to identify potential future climate change impacts on the Scheme. These climate change projections are presented in Section 6.6 of Chapter 6: Climate Change of this Environmental Statement [EN010106/APP/6.1].
Paragraph 4.8.7	Applicants should apply as a minimum, the emissions scenario that the Independent Committee on Climate Change suggests the world is currently most closely following – and the 10%, 50% and 90% estimate ranges. These results should be considered alongside relevant research which is based on the climate change projections.	UKCP18 climate change projections are presented in Section 6.6 of Chapter 6: Climate Change of this Environmental Statement [EN010106/APP/6.1] .
Paragraph 4.8.8	The IPC should be satisfied that there are not features of the design of new energy infrastructure critical to its operation which may be seriously affected by more radical changes to the climate beyond that projected in the latest set of UK climate projections, taking account of the latest credible scientific evidence on, for example, sea level rise (for example by referring to additional maximum credible scenarios – i.e. from the Intergovernmental Panel on Climate Change or	Relevant UKCP18 climate projections are presented in Section 6.6 of Chapter 6: Climate Change of this Environmental Statement [EN010106/APP/6.1] . Associated mitigation measures are outlined in Section 6.7 of Chapter 6: Climate Change .



Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES chapter is information provided to address this
	EA) and that necessary action can be taken to ensure the operation of the infrastructure over its estimated lifetime.	Consideration has also been given to further climate change projection analysis, including the 2015 report published by the Met Office and Reading University ('Developing H++ climate change scenarios for heat waves, droughts, floods, windstorms and cold snaps'), which looked into the H++ modelling that was built into the UKCP09 projections. There is not considered to be additional credible evidence that there will be significant climate change impacts beyond those covered within the UKCP18 projections.
Paragraph 4.8.9	Where energy infrastructure has safety critical elements (for example parts of new fossil fuel power stations or some electricity sub-stations), the applicant should apply the high emissions scenario (high impact, low likelihood) to those elements. Although the likelihood of this scenario is thought to be low, it is appropriate to take a more risk-averse approach with elements of infrastructure which are critical to the safety of its operation.	The RCP8.5 scenario has been used to generate the UKCP18 climate projections used. As per the UKCP18 user guidance, this is the closest available model to the 'high emissions scenario' available within UKCP09, which were the latest available projections at the time of publication of the NPS EN-1. The UKCP18 climate projections are presented in Section 6.6 of Chapter 6: Climate Change of this Environmental Statement [EN010106/APP/6.1].
Paragraph 4.8.10	If any adaptation measures give rise to consequential impacts (for example on flooding, water resources or coastal change) the IPC should consider the impact of the latter in relation to the application as a whole and the impacts guidance set out in Part 5 of this NPS.	No consequential impacts have been identified as a result of climate change adaptation measures.
Paragraph 4.8.11	Any adaptation measures should be based on the latest set of UK Climate Projections, the Government's latest UK Climate Change Risk Assessment, when available and in consultation with the EA.	Climate change adaptation measures are outlined in Section 6.7 of Chapter 6: Climate Change of this Environmental Statement [EN010106/APP/6.1] , which takes account of the relevant UKCP18 climate projections presented in Section 6.6 of Chapter 6: Climate Change of this Environmental Statement [EN010106/APP/6.1] . Consultation with the EA was undertaken as part of the flood risk, drainage and water resources assessment, which is provided in Chapter 9: Flood Risk, Drainage



Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES chapter is information provided to address this
		and Water Resources of this Environmental Statement [EN010106/APP/6.1].
Paragraph 4.8.12	Adaptation measures can be required to be implemented at the time of construction where necessary and appropriate to do so. However, where they are necessary to deal with the impact of climate change, and that measure would have an adverse effect on other aspects of the project and/or surrounding environment (for example coastal processes), the IPC may consider requiring the applicant to ensure that the adaptation measure could be implemented should the need arise, rather than at the outset of the development (for example increasing height of existing, or requiring new, sea walls).	No consequential adverse impacts on other aspects of the project and/or surrounding environment have been identified as a result of climate change adaptation measures.
	NPS EN-5	
Paragraph 2.4.1	Part 2 of EN-1 provides information regarding the Government's energy and climate change strategy including policies for mitigating climate change. Section 4.8 of EN-1 sets out the generic considerations that applicants and the IPC should take into account to help ensure that electricity networks infrastructure is resilient to climate change. As climate change is likely to increase risks to the resilience of some of this infrastructure, from flooding for example, or in situations where it is located near the coast or an estuary or is underground, applicants should in particular set out to what extent the proposed development is expected to be vulnerable, and, as appropriate, how it would be resilient to: a. flooding, particularly for substations that are vital for the electricity transmission and distribution network; b. effects of wind and storms on overhead lines; c. higher average temperatures leading to increased transmission losses; and d. earth movement or subsidence caused by flooding or drought (for underground cables).	Relevant UKCP18 climate projections are presented in Section 6.6 of Chapter 6: Climate Change of this Environmental Statement [EN010106/APP/6.1]. Associated mitigation measures are outlined in Section 6.7 of Chapter 6: Climate Change of this Environmental Statement [EN010106/APP/6.1]. An assessment of the impacts associated with flooding has also been undertaken as part of the flood risk, drainage and water resources assessment, which is provided in Appendix 9C Flood Risk Assessment, including Drainage Strategy of this Environmental Statement [EN010106/APP/6.2].
Paragraph 2.4.2	Section 4.8 of EN-1 advises that the resilience of the project to climate change should be assessed in the Environmental Statement (ES) accompanying an application. For example, future increased risk of flooding would be covered in any flood risk assessment (see Section 5.7 in EN-1).	The potential impacts of climate change on the Scheme, and associated mitigation measures are outlined in Section 6.7 and Section 6.8 of Chapter 6: Climate Change of this Environmental Statement [EN010106/APP/6.1].



Draft National Policy Statements

- 2.2.5 The Government is currently reviewing and updating the Energy NPSs. It is doing this in order to reflect its policies and strategic approach for the energy system that is set out in the Energy White Paper (December 2020), and to ensure that the planning policy framework enables the delivery of the infrastructure required for the country's transition to net zero carbon emissions. As part of the Energy NPS review process, the Government published a suite of Draft Energy NPSs for consultation on 6 September 2021. These include the following Draft NPSs, which are expected to be important and relevant to the Secretary of State's decision, and have therefore been taken into account by the EIA:
 - a. Draft Overarching National Policy Statement for Energy (EN-1) (Draft NPS EN-1),
 - b. Draft National Policy Statement for Renewable Energy (EN-3) (Draft NPS EN-3), and
 - c. Draft National Policy Statement for Electricity Networks Infrastructure (EN-5).
- 2.2.6 Where the relevant Draft NPS contain requirements that differ from the requirements of the NPSs, **Table 2-2** indicates where the information to address these requirements is provided within the ES Chapter.



 Table 2-2:
 Relevant Draft NPS requirements for the climate change assessment

Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES chapter is information provided to address this
	Draft NPS EN-1	
Paragraph 4.9.5	In preparing measures to support climate change adaptation applicants should consider whether nature-based solutions could provide a basis for such adaptation. In addition to avoiding further GHG emissions when compared with some more traditional adaptation approaches, nature-based solutions can also result in biodiversity benefits as well as increasing absorption of carbon dioxide from the atmosphere.	6.6 of Chapter 6: Climate Change of this Environmental Statement [EN010106/APP/6.1] . Associated mitigation measures are outlined in Section 6.7 of Chapter 6: Climate
Paragraph 4.9.8	Applicants should assess the impacts on and from their proposed energy project across a range of climate change scenarios, in line with appropriate expert advice and guidance available at the time. Applicants should be able to demonstrate that proposals have a high level of climate resilience built-in from the outset. They should also be able to demonstrate how proposals can be adapted over their predicted lifetimes to remain resilient to a credible maximum climate change scenario. These results should be considered alongside relevant research which is based on the climate change projections.	Relevant UKCP18 climate projections are presented in Section 6.6 of Chapter 6: Climate Change of this Environmental Statement [EN010106/APP/6.1], which use the RCP8.5 modelling scenario, and therefore represent a high-emissions scenario. Associated mitigation measures to build resilience across the lifetime of the Scheme are outlined in Section 6.7 of Chapter 6: Climate Change of this Environmental Statement [EN010106/APP/6.1].
Paragraph 5.3.4	 All proposals for energy infrastructure projects should include a carbon assessment as part of their ES (See Section 4.2). This should include: a. A whole life carbon assessment showing construction, operational and decommissioning carbon impacts b. An explanation of the steps that have been taken to drive down the climate change impacts at each of those stages c. Measurement of embodied carbon impact from the construction stage d. How reduction in energy demand and consumption during operation has been prioritised in comparison with other measures 	construction (including embodied carbon), operation (including GHG emissions associated with energy use) and decommissioning impacts, is presented in Section 6.8 of Chapter 6: Climate Change of this Environmental Statement [EN010106/APP/6.1], with a description of the methodology and approach taken provided in Section 6.4. b. Mitigation measures identified to reduce the GHG impact of



Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES chapter is information provided to address this
f. g.	offset or removed using a recognised framework Where there are residual emissions, the level of emissions and the impact of those on national and international efforts to limit climate change, both alone and where relevant in combination with other developments at a regional or national level, or sector level, if sectoral targets are developed.	 [EN010106/APP/6.1]. C. The embodied carbon impact of from the construction stage is included within the lifecycle GHG impact assessment, presented in Section 6.8 of Chapter 6: Climate Change of this Environmental Statement [EN010106/APP/6.1]. d. The operational impact of the Scheme is relatively small, and considered to be far outweighed by the overarching benefit of the Scheme to reduce energy production from fossil fuel sources.



Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES chapter is information provided to address this
		appropriate as the GHG emissions from the cumulative schemes also fall within the UK carbon budgets.
	Draft NPS EN-3	
	Solar PV sites may also be proposed in low lying exposed sites. For these proposals, applicants should consider, in particular, how plant will be resilient to: • increased risk of flooding • impact of higher temperatures	Relevant UKCP18 climate projections are presented in Section 6.6 of Chapter 6: Climate Change of this Environmental Statement [EN010106/APP/6.1], including precipitation and temperature projections. Associated mitigation measures are outlined in Section 6.7 of Chapter 6: Climate Change of this Environmental Statement [EN010106/APP/6.1].



National Planning Policy Framework (NPPF)

2.2.7 Section 14 of the NPPF (Ref 8) explains the national planning policy with regard to meeting the challenge of climate change, flooding and coastal change and how local planning authorities should determine planning applications with regard to climate change. The relevant NPPF paragraphs, together with an indication of where in the ES chapter the information is provided to address these requirements, are provided in **Table 2-3**.



Table 2-3: Relevant NPPF requirements for the climate change assessment

Relevant NPPF paragraph reference	Requirement of the NPPF	Where in the ES chapter is information provided to address this
Paragraph 152	The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.	Section 6.7 of Chapter 6: Climate Change of this ES [EN010106/APP/6.1] outlines the GHG mitigation and climate change adaptation measures embedded within the Scheme. Flood risk resilience is discussed further in Chapter 9: Flood Risk, Drainage and Water Resources of this ES [EN010106/APP/6.1] and the site-specific FRA (Appendix 9B of this ES [EN010106/APP/6.2]).
Paragraph 154	New development should be planned for in ways that: a) avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure; and b) can help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings should reflect the Government's policy for national technical standards.	Section 6.7 of Chapter 6: Climate Change of this ES [EN010106/APP/6.1] outlines the GHG mitigation and climate change adaptation measures embedded within the Scheme.



2.3 Guidance

2.3.1 The assessment has also considered the Planning Practice Guidance for Climate Change (March 2019) (Ref 9). In particular, the Planning Practice Guidance for Climate Change outlines the importance of embedding both climate change mitigation and adaptation, and provides advice on how to identify such measures. Climate change mitigation and adaptation have been considered through the Scheme design, and appropriate mitigation and adaptation measures embedded in the Scheme have been outlined in Section 6.7 of Chapter 6: Climate Change of this ES [EN010106/APP/6.1].



3 Local Legislation, Policy and Guidance

3.1 Policy

3.1.1 The following local policy is relevant to the assessment of the climate change effects of the Scheme.

Relevant Document	Relevant policies
East Cambridgeshire District Council Local Plan Adopted April 2015 (Ref 10).	Policy ENV4: Energy and Water Efficiency and Renewable Energy in Construction Policy ENV6: Renewable Energy Development Policy ENV8: Flood Risk
East Cambridgeshire District Council Climate Change – Supplementary Planning Document (SPD) Adopted February 2021 (Ref 11).	CC1: Reducing carbon dioxide emissions and maximising all aspects of sustainable design and construction CC2: Reducing energy demand in existing buildings CC3: Resilient and adaptable design CC4: Safeguarding renewable and low carbon energy sources
Forest Heath District Council Core Strategy Adopted 2010 (Ref 12).	Spatial Objective ENV1 in relation to climate change, emissions reductions and water efficiency Spatial Objective ENV7 in relation to sustainable infrastructure Policy CS4 in relation to emissions reductions and mitigation and adaptation to future climate change
Forest Heath and St Edmundsbury Local Plan: Joint Development Management Policies Document (last updated February 2015) (Ref 13).	Policy DM7: Sustainable Design and Construction Policy DM8: Low and Zero Carbon Energy Generation

3.1.2 Local planning policies for the Forest Heath and East Cambridgeshire districts identify the need to consider GHG emissions at all stages of a development's lifecycle. New development should aim for reduced or zero carbon development by incorporating renewable or low carbon energy sources and maximising energy and water efficiency where practicable. New developments should also consider future impacts of climate change and seek to reduce such impacts, particularly in relation to overheating of buildings and flooding.



4 References

- Ref 1 H.M Government (2008). Climate Change Act 2008.
- Ref 2 H.M Government (2008). Climate Change Act 2008 (2050 Target Amendment) Order 2019/1056.
- Ref 3 H.M Government (2009). The Carbon Budgets Order 2009/1259.
- Ref 4 H.M Government (2021) The Carbon Budget Order 2021
- Ref 5 Department of Energy & Climate Change (2011). Overarching National Policy Statement for Energy (EN-1).
- Ref 6 Department of Energy & Climate Change (2011). National Policy Statement for Renewable Energy Infrastructure (EN-3)
- Ref 7 Department of Energy & Climate Change (2011). National Policy Statement for Electrical Networks Infrastructure (EN-5).
- Ref 8 Ministry of Housing, Communities & Local Government (2021). National Planning Policy Framework
- Ref 9 Ministry of Housing, Communities & Local Government (2018). Planning Practice Guidance for Climate Change (2019 update).
- Ref 10 East Cambridgeshire District Council (2015). East Cambridgeshire Local Plan Adopted April 2015
- Ref 11 East Cambridgeshire District Council (2021). Climate Change Supplementary Planning Document (SPD) Adopted February 2021.
- Ref 12 West Suffolk Council (2010). Forest Heath Core Strategy.
- Ref 13 Forest Heath & St Edmundsbury Councils West Suffolk Working Together (2015). Forest Heath & St Edmundsbury Local Plan: Joint Development Management Policies Document.