

Tween Bridge Solar Farm

A Nationally Significant Infrastructure Project in the Energy Sector

Preliminary Environmental Information Report

Chapter 5 – Policy and Legislative Context

October 2023



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5.1. Introduction

- 5.1.1. This chapter of the working draft PEIR sets out an overview of the relevant planning policy and legislative context against which the application for Scheme Proposed Development consent will be determined. The purpose of this draft chapter is to establish the planning policy framework applicable to the Scheme. The PEIR does not seek to address matters of planning balance, and the assessment of the Scheme as against relevant policy will be set out in the Planning Statement which will subsequently be submitted with the DCO Application.
- 5.1.2. This policy chapter should be read in conjunction with the technical Chapters of this draft PEIR which address the policies that relate specifically to each of the disciplines.
- 5.1.3. By virtue of its potential generating capacity, which stands at over 50MW, this scheme constitutes a Nationally Significant Infrastructure Project (NSIP). Therefore, instead of applying to the local authority for Planning Permission, the developer must apply to the Planning Inspectorate for a different permission called a Development Consent Order (DCO). The process for applying for a Development Consent Order is set out in the Planning Act 2008 (the 'Act')¹.
- 5.1.4. The Act introduced a new system for consulting on, applying for, examining and determining NSIPs as defined by Section 14 of the Act. A non-exhaustive list of the main legislative and procedural requirements relating to NSIPs are presented within the following:
 - The Act;
 - The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended) (the APFP Regulations);
 - The Infrastructure Planning (Examination Procedure) Rules 2010;
 - Infrastructure Planning (Interested Parties and Miscellaneous Prescribed Provisions) Regulations 2015; and
 - The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 2017 EIA Regulations).
- 5.1.5. The development consists of a solar photovoltaic (PV) generating station with an output in excess of 50 megawatts (MW) and this currently comprises an NSIP to which sections s14(1)(a) and s15(2) of the Act apply.

¹ The Project constitutes a Nationally Significant Infrastructure Project (NSIP) by virtue of section 14 (1)(a) and section 15 of the Act which includes within the definition of an NSIP any onshore electricity generating station in England of 50 Megawatt capacity or more. Under section 31 PA 2008 a development consent order (DCO) is required to develop a NSIP. Under section 37 PA 2008 this can only be granted if an application is made to the Secretary of State (SoS).

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- 5.1.6. Section 104(1) of the Act applies if 'a NPS has effect in relation to development of the description to which the application relates' (a 'relevant National Policy Statement'). In such a case, the SoS would have to determine an application in accordance with the relevant National Policy Statement (NPS), subject to where specific exceptions apply (s104(3)).
- 5.1.7. Where s104 does not apply, an application falls to be decided under s105 of the Act. Section 105(2) requires the SoS to have regard to:
 - any Local Impact Report (within the meaning given by the Act s60(3)) submitted to the SoS before the specified deadline for submission;
 - any matters prescribed in relation to development of the description to which the application relates; and
 - any other matters which the SoS thinks are both important and relevant to the decision.
- 5.1.8. Solar generation is excluded from the scope of the extant Overarching National Policy Statement for Energy (EN-1) and the extant National Policy Statement for Renewable Energy Infrastructure (EN-3) (NPS EN-3). Accordingly, at the time of consultation of this draft working PEIR, there is no designated NPS that has effect with respect to the consideration of the proposed solar arrays. Similarly, energy storage systems do not come within the scope/ coverage of the suite of designated energy NPSs. However, Section 105 of the Act enables policy included in an NPS that is not designated for solar generation to be considered amongst the matters that are considered to be important and relevant for the purposes of decision making.
- 5.1.9. In the recent decision for Longfield Solar Farm², granted on 26 June 2023, the Examining Authority's Report considered that the NPS EN-1 and EN-5 were both important and relevant to the decision of that application³. The Examining Authority also considered that the National Planning Policy Framework and the National Planning Practice Guidance were also relevant to the determination of the application⁴
- 5.1.10. In September 2021, the Government commenced a consultation on revised versions of the energy NPSs. That consultation involved the issuing of draft versions for revisions to NPS EN-1 to NPS EN-5 inclusive. While these draft NPSs have not been designated and do not have effect for decision making under s104 of the Act, draft NPS (dNPS) EN-1 makes clear that:

"... any emerging draft NPSs (or those designated but not having effect) are potentially capable of being important and relevant considerations in the decision-making process. The extent to which they are relevant is a matter for the relevant Secretary of State to consider within the framework of the Planning Act and with regard to the specific circumstances of each development consent order application."

5.1.11. With reference to the recent Longfield decision, the Examining Authority's Report to the Secretary of State, the appointed Inspector considered that the earlier published draft versions

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² PINS reference ENO10118 (<u>https://infrastructure.planninginspectorate.gov.uk/projects/eastern/longfield-solar-farm/</u>)

³ Longfield Solar Farm Examining Authority's Report [ER 3.3.18 & 3.3.19]

⁴ Ibid [ER 3.8.2 & 3.8.5]

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of EN-1, EN-3 and EN-5 are important and relevant consideration to the determinisation for that application under Section 105 and should be afforded considerable weight. The same must therefore apply for the latest draft NPSs that were published for consultation in March this year (March 2023).

5.2. National Policy Statements

Overarching National Policy Statement for Energy (EN-1) dated July 2011

- 5.2.1. The National Policy Statement for Energy (EN-1) sets out the national policy for energy infrastructure, which encompasses renewable energy schemes generating more than 50MW. EN-1 is part of a suite of national policy statements issued by the then Secretary of State for Energy and Climate Change (now Secretary of State for Energy Security and Net Zero) and ratified by Parliament. It has effect in combination with the relevant technology specific NPS, National Policy for Renewable Energy Infrastructure (EN-3), and together they provide the primary basis for consenting made by the Examining Authority.
- 5.2.2. EN-1 is divided into five parts:
- 5.2.3. Part 1 sets out the background to the policy document. Paragraph 1.71 identify how all energy NPSs have been subject to an Appraisal of Sustainability ("AoS"), as required by the Act. The key points from the AoS for EN-1, as set out at paragraph 1.7.2, are:
 - The energy NPSs should speed up the transition to a low carbon economy and thus help realise UK climate change commitments sooner that continuation under the current planning system.
 - The energy NPSs are likely to contribute positively towards improving the vitality and competitiveness of the UK energy market by providing greater clarity for developers which should improve the UK's security of supply and, less directly, have a positive effects for the health and well-being in the medium to longer term through helping to secure affordable supplies of energy and minimising fuel poverty, positive medium and long term effects are also likely for equalities;
 - The development of new energy infrastructure, at the scale and speed required to meet the current and future need, is likely to have some negative effects on biodiversity, landscape/visual amenity and cultural heritage. However, the significance of these effects and the effectiveness of mitigation possibilities is uncertain at the strategic and nonlocationally specific level at which EN-1 to EN-5 are pitched. Short-term construction impacts are also likely through an increased use of raw materials and resources and negative effects on the economy due to impacts on existing land and sea uses. In general, it should be possible to mitigate satisfactorily the most significant potential negative effects of new energy infrastructure consented in accordance with the energy NPSs, and they explain ways in which this can be done; however, the impacts on landscape/visual amenity in particular will sometimes be hard to mitigate.
 - Paragraph 1.7.11 of EN-1 identifies how the principal area in which consenting new energy infrastructure in accordance with the energy NPSs is likely to lead to adverse effects which cannot always be satisfactorily mitigated.

- 5.2.4. Part 2 of EN-1 sets out the Government policy on energy and energy development infrastructure. It confirms the following: -
 - Government is committed to meeting its legally binding target to cut greenhouse gas emissions by at least 80% by 2050, compared to 1990 levels – this target has now been superseded;
 - the need to implement a transition to a low carbon economy so as to reduce greenhouse gas emissions; and
 - the importance of maintaining secure and reliable energy supplies as older fossil fuel generating plant closes as the UK moves towards a low carbon economy.
- 5.2.5. Government's wider objective for energy infrastructure includes contributing to sustainable development and ensuring that energy infrastructure is safe.
- 5.2.6. Paragraph 2.2.27 of the EN-1 goes on to state "Sustainable development is relevant not just in terms of addressing climate change, but because the way energy infrastructure is deployed affects the well-being of society and the economy".
- 5.2.7. Part 3 of EN-1 defines and sets out the need that exists for nationally significant energy infrastructure. With regards to decision making, paragraph 3.1.1. of EN1-1, states how *"the UK needs all the types of energy infrastructure covered in this NPS in order to achieve energy security at the same time as dramatically reducing greenhouse gas emissions"*.
- 5.2.8. Paragraph 3.1.2 states "It is for industry to propose new energy infrastructure projects within the strategic framework set by Government. The Government does not consider it appropriate for planning policy to set targets for or limits on different technologies". It then goes on to identify how NSIP applications should therefore be assessed on the basis that the Government has already demonstrated that there is a need for those types of infrastructure and that the scale and urgency of that need is as described in the EN-1.
- 5.2.9. In terms of the planning balance, paragraph 3.1.4 of EN1 states "The [determining authority] should give substantial weight to the contribution which projects would make towards satisfying this need when considering applications for development consent under the Planning Act 2008".
- 5.2.10. Section 3.3 of the EN1 discusses the need for new nationally significant electricity infrastructure projects. The key reasons why Government believes there is an urgent need for new electricity NSIPs are identified as: -
 - Meeting the energy security and carbon reduction objectives;
 - Need to replace closing electricity generating capacity;
 - The need for more electricity capacity to support an increased supply from renewables.
 - Future increases in electricity demand; and
 - The urgency of the need for new electricity capacity.
- 5.2.11. Paragraph 3.3.11 identifies how renewable sources, such as solar, are intermittent and as such will require back-up sources at times when the availability of intermittent renewable sources is low.

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Paragraph 3.3.12 goes on to identify how electrical storage technologies can be used to compensate for the intermittence.

5.2.12. Part 3.4 of EN-1 specifically discusses the role of renewable energy and states:

The UK has committed to sourcing 15% of its total energy (across the sectors of transport, electricity and heat) from renewable sources by 2020 and new projects need to continue to come forward urgently to ensure that we meet this target. Projections suggest that by 2020 about 30% or more of our electricity generation – both centralised and small-scale – could come from renewable sources, compared to 6.7% in 2009. The Committee on Climate Change in Phase 1 of its advice to Government in September 2010 agreed that the UK 2020 target was appropriate, and should not be increased. Phase 2 was published in May 2011 and provided recommendations on the post 2020 ambition for renewables in the UK, and possible pathways to maximise their contribution to the 2050 carbon reduction targets.

Large scale deployment of renewables will help the UK to tackle climate change, reducing the UK's emissions of carbon dioxide by over 750 million tonnes by 2030. It will also deliver up to half a million jobs by 2020 in the renewables sector...

- 5.2.13. With regards to the urgency for renewables, paragraph 3.4.5 explains that in order to hit the 2020 target and to largely decarbonize the power sector by 2030, it is necessary to bring forward new renewable electricity generation projects as soon as possible. It goes on to state "The need for new renewable electricity generation projects is therefore urgent".
- 5.2.14. Part 4 of EN-1 sets out certain strategic principles to be applied in respect of nationally significant energy infrastructure schemes.
- 5.2.15. Paragraph 4.1.2 states how the determining authority should start with the presumption in favor of granting consent to applications for energy NSIPs. That presumption applies unless any more specific and relevant polices set out in the relevant NPSs clearly indicate that consent should be refused.
- 5.2.16. The presumption is also subject to the provisions of the Act.
- 5.2.17. Paragraph 4.1.4 of EN-1 states how in considering any proposed development, and in particular when weighing its adverse impacts against its benefits, the determining authority should take into account:
 - Its potential benefits including its contribution to meeting the need for energy infrastructure, job creation and any long-term or wider benefits; and
 - Its potential adverse impacts, including any long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts.
- 5.2.18. Development consent obligations that are agreed with local authority are considered through paragraph 4.1.8 and this states that the determining authority may take these into account provided that they are relevant to planning, necessary to make the proposed development acceptable in planning terms, directly relates to the proposed development, fairly and reasonably related in scale and kind to the proposed development, and reasonable in all other respects.

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- 5.2.19. Part 4.4 deal with alternatives. Paragraph 4.4.1 states "From a policy perspective this NPS does not contain any general requirement to consider alternatives or to establish whether the proposed project represents the best option".
- 5.2.20. That said paragraph 4.4.2 identified how applicants are obliged to include in their ES, as a matter of fact, information about the main alternatives they have studied and this should include an indication of the main reasons for the applicant's choice, taking into account the environmental, social and economic effects.
- 5.2.21. Paragraph 4.4.3 goes on to state that where there is a policy or legal requirement to consider alternatives the applicant should describe the alternatives considered in compliance with these requirements. Given the level and urgency of need for new energy infrastructure, the IPC should, subject to any relevant legal requirements (e.g. under the Habitats Directive) which indicate otherwise, be guided by the following principles when deciding what weight should be given to alternatives:
 - the consideration of alternatives in order to comply with policy requirements should be carried out in a proportionate manner;
 - the determining authority should be guided in considering alternative proposals by whether there is a realistic prospect of the alternative delivering the same infrastructure capacity (including energy security and climate change benefits) in the same timescale as the proposed development;
 - where (as in the case of renewables) legislation imposes a specific quantitative target for
 particular technologies the determining authority should not reject an application for
 development on one site simply because fewer adverse impacts would result from
 developing similar infrastructure on another suitable site, and it should have regard as
 appropriate to the possibility that all suitable sites for energy infrastructure of the type
 proposed may be needed for future proposals;
 - alternatives not among the main alternatives studied by the applicant (as reflected in the ES) should only be considered to the extent that the determining authority thinks they are both important and relevant to its decision;
 - alternative proposals which mean the necessary development could not proceed, for example because the alternative proposals are not commercially viable or alternative proposals for sites would not be physically suitable, can be excluded on the grounds that they are not important and relevant to the determining authority's decision;
 - alternative proposals which are vague or inchoate can be excluded on the grounds that they are not important and relevant to the IPC's decision; and
 - it is intended that potential alternatives to a proposed development should, wherever possible, be identified before an application is made to the determining authority in respect of it (so as to allow appropriate consultation and the development of a suitable evidence base in relation to any alternatives which are particularly relevant). Therefore where an alternative is first put forward by a third party after an application has been made, the determining authority may place the onus on the person proposing the alternative to provide the evidence for its suitability as such and the determining authority should not necessarily expect the applicant to have assessed it.

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- 5.2.22. On the issue of design for energy infrastructure, paragraph 4.5.1 of the EN-1 identifies how (inter alia) "Applying "good design" to energy projects should produce sustainable infrastructure sensitive to place, efficient in the use of natural resources and energy used in their construction and operation, matched by an appearance that demonstrates good aesthetic as far as possible. It is acknowledged, however that the nature of much energy infrastructure development will often limit the extent to which it can contribute to the enhancement of the quality of the area".
- 5.2.23. The relationship between design and function is explored through paragraph 4.5.3 and states "In the light of the above, and given the importance which the Planning Act 2008 places on good design and sustainability, the IPC needs to be satisfied that energy infrastructure developments are sustainable and, having regard to regulatory and other constraints, are as attractive, durable and adaptable (including taking account of natural hazards such as flooding) as they can be. In so doing, the IPC should satisfy itself that the applicant has taken into account both functionality (including fitness for purpose and sustainability) and aesthetics (including its contribution to the quality of the area in which it would be located) as far as possible. Whilst the applicant may not have any or very limited choice in the physical appearance of some energy infrastructure, there may be opportunities for the applicant to demonstrate good design in terms of siting relative to existing landscape character, landform and vegetation. Furthermore, the design and sensitive use of materials in any associated development such as electricity substations will assist in ensuring that such development contributes to the quality of the area".
- 5.2.24. Paragraph 4.9.1 of the EN-1 recognises that "The connection of a proposed electricity generation plant to the electricity network is an important consideration for applicants wanting to construct or extend generation plant". It goes on to state how "In the market system, it is for the applicant to ensure that there will be necessary infrastructure and capacity within an existing or planned transmission or distribution network to accommodate the electricity generated". This is an important consideration when considering alternatives as the applicant has secured a point of connection within the confides of the development site.
- 5.2.25. Part 5 of the EN-1 sets out the generic impacts that may or may not be pertinent to specific projects, these are lists as: -

Торіс	Commentary
Land use	With regards to agricultural land classification, para 5.10.8 states how applicants should seek to minimise impacts on the best and most versatile agricultural land except where this would be inconsistent with other sustainability considerations.
	Paragraph 5.10.15 identifies how the determining authority should ensure that applicants provide justification when locating sites on best and most versatile agricultural land. With regards to mitigation, EN-1 states that there may be little that can be done to mitigate the direct effects of an energy project on the existing use of the proposed site.
Landscape and Visual	Paragraph 5.9.8 sets out that for nationally significant energy infrastructure, projects need to be designed carefully, having regard to siting, operational

Table 5.1 EN-1 Generic Impacts

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	and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.
Biodiversity and geological conservation	As a general principle, development should aim to avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable alternatives; where significant harm cannot be avoided, then appropriate compensation measures should be sought.
Historic Environment	Paragraph 5.8.8 states that as part of the ES the applicant should provide a description of the significance of the heritage assets assessed by the proposed development and the contribution of their setting to that significance. The level of detail should be proportionate to the importance of the heritage asset and no more than is sufficient to understand the potential impact of the proposal on the significance of the heritage asset. Paragraph 5.8.12 goes on to state that in considering the impact of the proposed development on any heritage asset, the determining authority should take into account the particular nature of the significance of the heritage assets and the value that they hold for this and future generations. This understanding should be used to avoid or minimise conflict between conservation of that significance and proposals for development.
Dust, odour, artificial lighting	Paragraph 5.6.3 of EN-1 recognises that for energy NSIPs, some impacts on amenity for local communities is likely to be unavoidable. The aim should be to keep impacts to a minimum, and at a level that is acceptable.
Flood Risk	Applications for energy projects of 1 hectare of greater in flood zone 1 should be accompanied by a flood risk assessment. The surface water drainage arrangements for any project should be such that the volumes and peal flow rate of surface water leaving the site are no greater than the rate prior to the proposed project, unless specific off-site arrangements are made and results in the same net effect.
Air Quality and Emission	Paragraph 5.2.6 states "Where the project is likely to have adverse effects on air quality the applicant should undertake an assessment of the impacts of the proposed project as part of the Environmental Statement". The ES should describe: any significant air emissions, their mitigation and any residual effects distinguishing between the project stages and taking account of any significant emissions from any road traffic generated by the project; the predicted absolute emission levels of the proposed project, after mitigation methods have been applied; existing air quality levels and the relative change in air quality from existing levels; and any potential eutrophication impacts.

Socio Economic	Paragraph 5.12.3 states "Where the project is likely to have socio-economic impacts at local or regional levels, the applicant should undertake and include in their application an assessment of these impacts as part of the ES". The effects should consider: the creation of jobs and training opportunities; the provision of additional local services and improvements to local infrastructure, including the provision of educational and visitor facilities; effects on tourism; the impact of a changing influx of workers during the different construction, operation and decommissioning phases of the energy infrastructure. This could change the local population dynamics and could alter the demand for services and facilities in the settlements nearest to the construction work (including community facilities and physical infrastructure such as energy, water, transport and waste). There could also be effects on social cohesion depending on how populations and service provision change as a result of the development; and cumulative effects – if development consent were to be granted to for a number of projects within a region and these were developed in a similar timeframe, there could be some short-term negative effects, for example a potential shortage of construction workers to meet the needs of other industries and major projects within the region.
Traffic and Transport	With regards to decision taking, EN-1 recognises that a new energy NSIP may give rise to substantial impacts on the surrounding transport infrastructure and the Planning Inspectorate should therefore ensure that the applicant has sought to mitigate these impacts, including during the construction phase of the development. Where the proposed mitigation measures are insufficient to reduce the impact on the transport infrastructure to acceptable levels, the IPC should consider requirements to mitigate adverse impacts on transport networks arising from the development.
Water Quality	Where the project is likely to have effects on the water environment, the applicant should undertake an assessment of the existing status of, and impacts of the proposed project on, water quality, water resources and physical characteristics of the water environment as part of the ES or equivalent.

National Policy Statement for Electricity Networks (EN-5)

- 5.2.26. The National Policy Statement on Electricity Networks Infrastructure (EN-5) was designated in July 2011. Whilst EN-5 principally covers above ground electricity lines of 132kV, paragraph 1.8.2 confirms that EN-5 will also be relevant if the electricity network constitutes an associated development for which consent is sought, such as a generating station.
- 5.2.27. Part 2 of EN-5 sets out a number of assessment and technology specific matters. Paragraph 2.2.2 points out that the location of electricity networks will often be determined by the particular generating station and the existing electricity network. Part 2 sets out particular generic impacts concerning biodiversity and geological conservation, landscape and visual, noise and vibration, and electric and magnetic field effects.

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5.3. Draft National Policy Statements

5.3.1. As stated elsewhere in this chapter, in late 2021 a consultation was undertaken with regards to reviewing and updating the energy NPSs. The updated documents would ensure that decisions on major energy infrastructure reflect the current legislative framework and strategic policy approach and that the planning policy framework can support the infrastructure required for the transition to Net Zero. The draft NPS have been revised since their original publication and this chapter considered the latest draft NPSs that were published for consultation in March 2023.

Draft Overarching National Policy Statement EN-1 (March 2023)

- 5.3.2. The latest (dNPS) EN-1, presented through the 2023 amendments, identifies how the latest draft NPS will only have effect to applications which are accepted after the date of draft NPS are published. It goes on to state, at paragraph 1.6.3, how any emerging draft NPS are capable of being important and relevant considerations in the decision-making process. The structure of dNPS EN-1 is consistent with the 2021 document, the salient points are discussed below.
- 5.3.3. Part 2 has been updated to reflect the Government policy on energy and energy infrastructure development.
 - Paragraph 2.2.1 discusses how in June 2019, the UK became the first major economy to legislate for a 2050 net zero Greenhouse Gases ('GHG') emissions target through the Climate Change Act 2008 (2050 Target Amendment) Order 2019. In December 2020, the UK communicated its Nationally Determined Contributions to reduce GHG emissions by at least 68 per cent from 1990 levels by 2030. In April 2021, the government legislated for the sixth carbon budget (CB6), which requires the UK to reduce GHG emissions by 78 per cent by 2035 compared to 1990 levels.
 - Paragraph 2.1.1 identifies how The British Energy Security Strategy, published in April 2022, and the Growth Plan of 23 September 2022 further reinforced ambitions and the importance of addressing underlying vulnerability to international oil and gas prices and reducing UK's dependence on imported oil and gas.
 - Paragraph 2.1.2 states "To produce enough energy required for the UK and ensure it can be transported to where it is needed, a significant amount of infrastructure is needed at both local and national scale. High quality infrastructure is crucial for economic growth, boosting productivity and competitiveness"
 - Paragraph 2.1.3 identifies how "The National Infrastructure Strategy (NIS) is committed to boosting growth and productivity across the whole of the UK, levelling up and strengthening the Union through investment in rural areas, towns, and cities, from major national projects to local priorities. It also committed to government putting the UK on the path to meeting its net zero emissions target by 2050 by taking steps to decarbonise the UK's power networks which together account for over two-thirds of the UK emissions – and take steps to adapt to the risks posed by climate change."
 - Paragraph 2.3.3 identifies how there is a need for a 'step change' in order to meet net zero by 2050.
 - Paragraph 2.3.4 reemphasises how significant amount of energy infrastructure is required, both large and small-scale, in order to meet the net zero target.

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- Paragraph 2.3.5 acknowledges how the energy system is dominated by fossil fuel, accounting for c. 76% of energy supply in 2020. The Government recognises how we need to dramatically increase the volume of energy supplied form low carbon sources and reduce the amount provided by fossil fuels.
- 5.3.4. Part three of the dNPS EN-1 explains why the government sees a need for significant amount of new large-scale energy infrastructure to meet its energy objectives and why the Government considers that the need for such infrastructure is urgent.
 - Paragraph 3.1.2 identifies how "it will not be possible to develop the necessary amounts of such infrastructure without some significant residual adverse impacts. These effects will be minimised by the application of policy set out in Parts 4 and 5 of this NPS. See also Part 2 of each technology specific NPS".
- 5.3.5. Paragraph 3.2.5 states "The Secretary of State should assess all applications for development consent for the types of infrastructure covered by this NPS on the basis that the government has demonstrated that there is a need for those types of infrastructure which is urgent, as described for each of them in this Part."
- 5.3.6. Paragraph 3.2.6 goes on to state "In addition, the Secretary of State has determined that substantial weight should be given to this need when considering applications for development consent under the Planning Act 2008."
- 5.3.7. Through paragraph 3.3.20, the government recognises how solar is a low cost way of generating electricity, and their analysis shows that a secure, reliable, affordable, net zero consistent system in 2050 is likely to be composed of predominantly of wind and solar.
- 5.3.8. Paragraph 3.3.56 sums up the how all the generating technologies mentioned in the dNPS EN-1 are urgently needed to meet the government's energy objectives by providing security of supply (by reducing reliance on imported oil and gas, avoiding concentration risk and not relying on one fuel or generation type); providing an affordable, reliable system (through the deployment of technologies with complementary characteristics); and ensuring the system is net zero consistent (by remaining in line with our carbon budgets and maintaining the options required to deliver for a wide range of demand, decarbonisation and technology scenarios, including where there are difficulties with delivering any technology)
- 5.3.9. Paragraph 3.3.58 reiterates how the need for infrastructure listed in the document is urgent.
- 5.3.10. Paragraph 3.370 states "Government has committed to reduce GHG emissions by 78 per cent by 2035 under carbon budget 6.60 According to the Net Zero Strategy61 this means that by 2035, all our electricity will need to come from low carbon sources, subject to security of supply, whilst meeting a 40–60 per cent increase in demand".
- 5.3.11. Paragraph 3.3.82 states "It is not the role of the planning system to deliver specific amounts or limit any form of electricity infrastructure covered by this NPS."
- 5.3.12. This part of the dNPS EN-1, Assessment Principles, sets out the general policies for the submission and assessment of applications relating to energy infrastructure. Paragraph 4.1.5 provides guidance on weighing the adverse impacts of a project against its benefits, and states how *"its potential benefits including its contribution to meeting the need for energy infrastructure, job creation, reduction of geographical disparities, environmental enhancements,*

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and any long-term or wider benefits; [and] its potential adverse impacts, including on the environment, and including any long-term and cumulative adverse impacts, as well as any measures to avoid, reduce, mitigate or compensate for any adverse impacts, following the mitigation hierarchy"

- 5.3.13. Paragraph 4.1.10 states "The policy set out in this NPS and the technology specific energy NPSs is intended to provide greater clarity around existing policy and practice of the Secretary of State in considering applications for nationally significant energy infrastructure, (or therefore the "benchmark" for what is, or is not, an acceptable nationally significant energy development)."
- 5.3.14. Through paragraph 4.1.19, the dNPS EN-1 emphasises how developers should carry out early engagement with stakeholders and before the formal pre-application stage.
- 5.3.15. Section 4.2 deals with the environmental principles and the preamble states how the current legislation on environmental assessment will continue to apply until the government introduces new legislation to replace the existing EU-generated system for Environmental Impact Assessments with a domestic framework of environmental assessments.
- 5.3.16. Paragraph 4.2.2 states how "The Regulations specifically refer to effects on population, human health, biodiversity, land, soil, water, air, climate, the landscape, material assets and cultural heritage, and the interaction between them".
- 5.3.17. Paragraph 4.2.10 identifies how the applicant must provide information proportionate to the scale of the project ensuring the information si sufficient to meet the requirements of the EIA Regulations.
- 5.3.18. Paragraphs 4.2.11 and 4.2.12 identifies how it may not be possible for all aspects of the development to be settled in precise details and where this is the case this should be explained whilst the applicant's assesses the worst-case parameters of the scheme.
- 5.3.19. Paragraph 4.2.15 states "Applicants are obliged to include in their ES, information about the reasonable alternatives they have studied. This should include an indication of the main reasons for the applicant's choice, taking into account the environmental, social and economic effects and including, where relevant, technical and commercial feasibility."
- 5.3.20. Paragraph 4.2.22 states how the Secretary of State should be guided in considering alternative proposals by whether there is a realistic prospect of the alternative delivering the same infrastructure capacity (including energy security, climate change, and other environmental benefits) in the same timescale as the proposed development. Paragraph 4.2.23 goes on to state how The Secretary of State should not refuse an application for development on one site simply because fewer adverse impacts would result from developing similar infrastructure on another suitable site, and it should have regard as appropriate to the possibility that all suitable sites for energy infrastructure of the type proposed may be needed for future proposals. Alternatives not discussed by the applicant should only be considered to the extent that the Secretary of State thinks they are both important and relevant to the decision.
- 5.3.21. Part 5 of the dNPS EN-1 considers the generic impacts that arise from the development of all types of energy infrastructure that are covered by the energy NPSs. The salient matters are listed in Table 5.2.

Торіс	Commentary
Air quality and emissions	Where the project is likely to have adverse effects on air quality the applicant should undertake an assessment of the impacts of the proposed project as part of the ES. The ES should describe: existing air quality levels and the relative change in air quality from existing levels; any significant air emissions, their mitigation and any residual effects distinguishing between the project stages and taking account of any significant emissions from any road traffic generated by the project; the predicted absolute emission levels of the proposed project, after mitigation methods have been applied; and, any potential eutrophication impacts
Greenhouse gas emission	All proposals for energy infrastructure projects should include a GHG assessment as part of their ES. This should include: A whole life GHG assessment showing construction, operational and decommissioning GHG impacts. An explanation of the steps that have been taken to drive down the climate change impacts at each of those stages. Measurement of embodied GHG impact from the construction stage. How reduction in energy demand and consumption during operation has been prioritised in comparison with other measures. How operational emissions have been reduced as much as possible through the application of best available technology for that type of technology. Calculation of operational energy consumption and associated carbon emissions. Whether and how any residual GHG emissions will be (voluntarily) 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.
Biodiversity and geological conservation	Energy infrastructure projects have the potential to deliver significant benefits and enhancements beyond Biodiversity Net Gain, which result in wider environmental gains. The scope of potential gains will be dependent on the type, scale, and location of each project. Applicants should consider wider ecosystem services and benefits of natural capital when designing enhancement measures. The design of Energy NSIP proposals will need to consider the movement of mobile / migratory species such as birds, fish and marine and terrestrial mammals and their potential to interact with infrastructure. As energy infrastructure could occur anywhere within England and Wales, both inland and onshore and offshore, the potential to affect mobile and migratory species across the UK and more widely across Europe (transboundary effects) requires consideration, depending on the location of development.

Table 5.2 dNPS EN-1 (March 2023) Generic Impacts to consider for renewable developments

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Applicants should include appropriate avoidance, mitigation, compensation and enhancement measures as an integral part of the proposed development. In particular, the applicant should demonstrate that: during construction, they will seek to ensure that activities will be confined to the minimum areas required for the works; the timing of construction has been planned to avoid or limit disturbance; during construction and operation best practice will be followed to ensure that risk of disturbance or damage to species or habitats is minimised, including as a consequence of transport access arrangements; habitats will, where practicable, be restored after construction works have finished; and, opportunities will be taken to enhance existing habitats rather than replace them, and where practicable, create new habitats of value within the site landscaping proposals. Where habitat creation is required as mitigation, compensation, or enhancement the location and quality will be of key importance. In this regard habitat creation should be focused on areas where the most ecological and ecosystems benefits can be realised.
Applicants should produce and implement a Biodiversity Management Strategy as part of their development proposals. This could include provision for biodiversity awareness training to employees and contractors so as to avoid unnecessary adverse impacts on biodiversity during the construction and operation stages.
The government's 25 Year Environment Plan and the Environment Act 2021 mark a step change in ambition for wildlife and the natural environment. The Secretary of State should have regard to the aims and goals of the government's Environmental Improvement Plan and any relevant measures and targets, including statutory targets set under the Environment Act or elsewhere.
The benefits of nationally significant low carbon energy infrastructure development may include benefits for biodiversity and geological conservation interests and these benefits may outweigh harm to these interests. The Secretary of State may take account of any such net benefit in cases where it can be demonstrated.
As a general principle, development should, in line with the mitigation hierarchy, aim to avoid significant harm to biodiversity and geological conservation interests, including through consideration of reasonable alternatives. Where significant harm cannot be avoided, impacts should be mitigated and as a last resort, appropriate compensation measures should be sought.
Development proposals provide many opportunities for building-in beneficial biodiversity or geological features as part of good design. The Secretary of State should give appropriate weight to environmental and biodiversity enhancements, although any weight given to gains provided to meet a legal requirement (for example under the Environment Act 2021) is likely to be limited.

	The Secretary of State must consider whether the project may have a likely significant effect on a protected site which is part of the National Site Network (an HRA Site), a Marine Protected Area (MPA), or on any site to which the same protection is applied as a matter of policy, either alone or in combination with other plans or projects.
Civil and limitary aviation	The Secretary of State should be satisfied that the effects on meteorological radars, civil and military aerodromes, aviation technical sites and other defence assets have been addressed by the applicant and that any necessary assessment of the proposal on aviation, NSWWS or defence interests has been carried out.
Dust, odour, artificial lighting, smoke, stream and insect infestation	During the construction, operation and decommissioning of energy infrastructure there is potential for the release of a range of emissions such as odour, dust, steam, smoke, artificial light and infestation of insects. All have the potential to have a detrimental impact on amenity or cause a common law nuisance or statutory nuisance under Part III, Environmental Protection Act 1990. However, they are not regulated by the environmental permitting regime, so mitigation of these impacts will need to be included in the DCO.
	For energy NSIPs of the type covered by this NPS, some impact on amenity for local communities is likely to be unavoidable. The aim should be to keep impacts to a minimum, and at a level that is acceptable.
	In particular, the assessment provided by the applicant should describe: the type, quantity and timing of emissions; aspects of the development which may give rise to emissions; premises or locations that may be affected by the emissions; effects of the emission on identified premises or locations; and, measures to be employed in preventing or mitigating the emissions.
Flood risk	The aims of planning policy on development and flood risk are to ensure that flood risk from all sources of flooding is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding, and to steer new development to areas with the lowest risk of flooding. Where new energy infrastructure is, exceptionally, necessary in
	flood risk areas (for example where there are no reasonably available sites in areas at lower risk), policy aims to make it safe for its lifetime without increasing flood risk elsewhere and, where possible, by reducing flood risk overall. It should also be designed and constructed to remain operational in times of flood.
	If, following application of the Sequential Test, it is not possible, (taking into account wider sustainable development objectives), for the project to be located in areas of lower flood risk the Exception Test can be applied, as required by Annex 3 of the Planning Practice Guidance. The test provides a method of allowing necessary

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development to go ahead in situations where suitable sites at lower
risk of flooding are not available. The Exception Test is only appropriate for use where the Sequential Test alone cannot deliver an acceptable site. It would only be appropriate to move onto the Exception Test when the Sequential Test has identified reasonably available, lower risk sites appropriate for the proposed development where, accounting for wider sustainable development objectives, application of relevant policies would provide a clear reason for refusing development in any alternative locations identified.
Both elements of the Exception Test will have to be satisfied for development to be consented. To pass the Exception Test it should be demonstrated that: the project would provide wider sustainability benefits to the community that outweigh flood risk; and, the project will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible will reduce flood risk overall.
The minimum requirements for Flood Risk Assessments (FRA) are that they should: be proportionate to the risk and appropriate to the scale, nature and location of the project; consider the risk of flooding arising from the project in addition to the risk of flooding to the project; take the impacts of climate change into account, across a range of climate scenarios, clearly stating the development lifetime over which the assessment has been made
be undertaken by competent people, as early as possible in the process of preparing the proposal; consider both the potential adverse and beneficial effects of flood risk management infrastructure, including raised defences, flow channels, flood storage areas and other artificial features, together with the consequences of their failure and exceedance; consider the vulnerability of those using the site, including arrangements for safe access and escape; consider and quantify the different types of flooding (whether from natural and human sources and including joint and cumulative effects) and include information on flood likelihood, speed-of-onset, depth, velocity, hazard and duration; identify and secure opportunities to reduce the causes and impacts of flooding overall, making as much use as possible of natural flood management techniques as part of an integrated approach to flood risk management; consider the effects of a range of flooding events including extreme events on people, property, the natural and historic environment and river and coastal processes; include the assessment of the remaining (known as 'residual') risk after risk reduction measures have been taken into
account and demonstrate that these risks can be safely managed, ensuring people will not be exposed to hazardous flooding; consider how the ability of water to soak into the ground may change with development, along with how the proposed layout of the project may affect drainage systems detail those measures that will be included to ensure the development will be safe and remain operational during a flooding event throughout the

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	development's lifetime without increasing flood risk elsewhere; identify and secure opportunities to reduce the causes and impacts of flooding overall during the period of construction; and be supported by appropriate data and information, including historical information on previous events.
	In determining an application for development consent, the Secretary of State should be satisfied that where relevant:
	the application is supported by an appropriate FRA • the Sequential Test has been applied and satisfied as part of site selection
	a sequential approach has been applied at the site level to minimise risk by directing the most vulnerable uses to areas of lowest flood risk
	the proposal is in line with any relevant national and local flood risk management strategy
	SuDS (as required in the next paragraph on National Standards) have been used unless there is clear evidence that their use would be inappropriate
	in flood risk areas the project is designed and constructed to remain safe and operational during its lifetime, without increasing flood risk elsewhere (subject to the exceptions set out in paragraph 5.8.18) • the project includes safe access and escape routes where required, as part of an agreed emergency plan, and that any residual risk can be safely managed over the lifetime of the development • land that is likely to be needed for present or future flood risk management infrastructure has been appropriately safeguarded from development to the extent that development would not prevent or hinder its construction, operation or maintenance
Historic environment	The applicant should undertake an assessment of any likely significant heritage impacts of the proposed development as part of the EIA and describe these in the ES (see Section 4.2). This should include consideration of heritage assets above, at, and below the surface of the ground. Consideration will also need to be given to the possible impacts, including cumulative, on the wider historic environment. The assessment should include reference to any historic landscape or seascape character assessment and associated studies as a means of assessing impacts relevant to the proposed project.
	As part of the ES the applicant should provide a description of the significance of the heritage assets affected by the proposed development, including any contribution made by their setting. The level of detail should be proportionate to the importance of the heritage assets and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum, the applicant should have consulted the relevant Historic Environment Record and assessed the heritage assets themselves

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	using expertise where necessary according to the proposed development's impact.
	Where a site on which development is proposed includes, or the available evidence suggests it has the potential to include, heritage assets with an archaeological interest, the applicant should carry out appropriate desk-based assessment and, where such desk- based research is insufficient to properly assess the interest, a field evaluation. Where proposed development will affect the setting of a heritage asset, accurate representative visualisations may be necessary to explain the impact.
	Where there is a high probability (based on an adequate assessment) that a development site may include, as yet undiscovered heritage assets with archaeological interest, the Secretary of State will consider requirements to ensure appropriate procedures are in place for the identification and treatment of such assets discovered during construction. The Secretary of State should give considerable importance and weight to the desirability of preserving all heritage assets. Any harm or loss of significance of a designated heritage asset (from its alteration or destruction, or from development within its setting) should require clear and convincing justification.
Landscape and visual	Virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape, but there may also be beneficial landscape character impacts arising from mitigation. Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.
	Applicants should consider how landscapes can be enhanced using landscape management plans, as this will help to enhance environmental assets where they contribute to landscape and townscape quality.
	In considering visual effects it may be helpful for applicants to draw attention, in the supporting evidence to their applications, to any examples of existing permitted infrastructure they are aware of with a similar magnitude of impact on sensitive receptors. This may assist the Secretary of State in judging the weight they should give to the assessed visual impacts of the proposed development.
	Reducing the scale of a project can help to mitigate the visual and landscape effects of a proposed project. However, reducing the scale or otherwise amending the design of a proposed energy infrastructure project may result in a significant operational constraint and reduction in function – for example, the electricity generation output. There may, however, be exceptional circumstances, where mitigation could have a very significant benefit and warrant a small reduction in function. In these
	circumstances, the Secretary of State may decide that the benefits

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	of the mitigation to reduce the landscape and/or visual effects outweigh the marginal loss of function.
	The scale of energy projects means that they will often be visible within many miles of the site of the proposed infrastructure. The Secretary of State should judge whether any adverse impact on the landscape would be so damaging that it is not offset by the benefits (including need) of the project.
	In reaching a judgment, the Secretary of State should consider whether any adverse impact is temporary, such as during construction, and/or whether any adverse impact on the landscape will be capable of being reversed in a timescale that the Secretary of State considers reasonable.
	The Secretary of State should consider whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to minimise harm to the landscape, including by appropriate mitigation.
Land use	The ES should identify existing and proposed land uses near the project, any effects of replacing an existing development or use of the site with the proposed project or preventing a development or use on a neighbouring site from continuing. Applicants should also assess any effects of precluding a new development or use proposed in the development plan. The assessment should be proportionate to the scale of the preferred scheme and its likely impacts on such receptors. For developments on previously developed land, the applicant should ensure that they have considered the risk posed by land contamination and how it is proposed to address this.
	 Applicants should seek to minimise impacts on the best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification) and preferably use land in areas of poorer quality (grades 3b, 4 and 5). Applicants should also identify any effects and seek to minimise impacts on soil health and protect and improve soil quality taking into account any mitigation measures proposed. Applicants are encouraged to develop and implement a Soil Management Plan which could help minimise potential land contamination.
	The Secretary of State should ensure that applicants do not site their scheme on the best and most versatile agricultural land without justification. Where schemes are to be sited on best and most versatile agricultural land the Secretary of State should take into account the economic and other benefits of that land. Where development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality.
	Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into

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	account relevant information such as river basin management plans. Applicants should safeguard any mineral resources on the proposed site as far as possible, taking into account the long-term
	potential of the land use after any future decommissioning has taken place.
Noise and vibration	Where noise impacts are likely to arise from the proposed development, the applicant should include the following in the noise assessment:
	a description of the noise generating aspects of the development proposal leading to noise impacts, including the identification of any distinctive tonal, impulsive, low frequency or temporal characteristics of the noise
	identification of noise sensitive receptors and noise sensitive areas that may be affected
	the characteristics of the existing noise environment
	a prediction of how the noise environment will change with the proposed development: in the shorter term, such as during the construction period; in the longer term, during the operating life of the infrastructure; and, at particular times of the day, evening and night (and weekends) as appropriate, and at different times of year an assessment of the effect of predicted changes in the noise environment on any noise-sensitive receptors, including an assessment of any likely impact on health and well-being where appropriate, and noise-sensitive area
	if likely to cause disturbance, an assessment of the effect of underwater or subterranean noise
	measures to be employed in mitigating the effects of noise using best available techniques to reduce noise impacts
Socio-economic impacts	Where the project is likely to have socio-economic impacts at local or regional levels, the applicant should undertake and include in their application an assessment of these impacts as part of the ES
	The applicant's assessment should consider all relevant socio- economic impacts, which may include:
	the creation of jobs and training opportunities. Applicants may wish to provide information on the sustainability of the jobs created, including where they will help to develop the skills needed for the UK's transition to Net Zero
	the contribution to the development of low-carbon industries at the local and regional level as well as nationally
	the provision of additional local services and improvements to local infrastructure, including the provision of educational and visitor facilities
	any indirect beneficial impacts for the region hosting the infrastructure, in particular in relation to use of local support services and supply chains

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	effects on tourism the impact of a changing influx of workers during the different construction, operation and decommissioning phases of the energy infrastructure. This could change the local population dynamics and could alter the demand for services and facilities in the settlements nearest to the construction work (including community facilities and physical infrastructure such as energy, water, transport and waste). There could also be effects on social cohesion depending on how populations and service provision change as a result of the development. cumulative effects – if development consent were to be granted to
	for a number of projects within a region and these were developed in a similar timeframe, there could be some short-term negative effects, for example a potential shortage of construction workers to meet the needs of other industries and major projects within the region. The Secretary of State should have regard to the potential socio- poperation imports of new operate infrastructure identified by the
	economic impacts of new energy infrastructure identified by the applicant and from any other sources that the Secretary of State considers to be both relevant and important to its decision. The Secretary of State may conclude that limited weight is to be given to assertions of socio-economic impacts that are not supported by evidence).
Traffic and Transport	The Secretary of State should only consider refusing development on highways grounds if there would be an unacceptable impact on highway safety, residual cumulative impacts on the road network would be severe, or it does not show how consideration has been given to the provision of adequate active public or shared transport access and provision.
Resource and waste management	Government policy on hazardous and non-hazardous waste is intended to protect human health and the environment by producing less waste and by using it as a resource wherever possible. Where this is not possible, waste management regulation ensures that waste is disposed of in a way that is least damaging to the environment and to human health.
	Applicants are also encouraged to use construction best practices in relation to storing materials in an adequate and protected place on site to prevent waste, for example, from damage or vandalism. The use of Building Information Management tools (or similar) to record the materials used in construction can help to reduce waste in future decommissioning of facilities, by identifying materials that can be recycled or reused.
Water quality and resources	Where the project is likely to have effects on the water environment, the applicant should undertake an assessment of the existing status of, and impacts of the proposed project on, water quality, water resources and physical characteristics of the water environment, and how this might change due to the impact of climate change on rainfall patterns and consequently water

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availability across the water environment, as part of the ES or equivalent.
The ES should in particular describe:
the existing quality of waters affected by the proposed project and the impacts of the proposed project on water quality, noting any relevant existing discharges, proposed new discharges and proposed changes to discharges
existing water resources affected by the proposed project and the impacts of the proposed project on water resources, noting any relevant existing abstraction rates, proposed new abstraction rates and proposed changes to abstraction rates (including any impact on or use of mains supplies and reference to Abstraction Licensing Strategies) and also demonstrate how proposals minimise the use of water resources and water consumption in the first instance
existing physical characteristics of the water environment (including quantity and dynamics of flow) affected by the proposed project and any impact of physical modifications to these characteristics
any impacts of the proposed project on water bodies or protected areas (including shellfish protected areas) under the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 and source protection zones (SPZs) around potable groundwater abstractions
how climate change could impact any of the above in the future any cumulative effects

Draft National Policy Statement for Renewable Energy EN-3 (March 2023)

- 5.3.22. The dNPS EN-3 (September 2021) introduced ground mounted solar and this was retained for the 2023 amendments.
- 5.3.23. With regards to factors influencing site selection and design paragraph 3.3.5 identifies how it is for the applicant to decide what applications to bring froward and the government does not seek to direct applicants to particular sites for renewable energy infrastructure (with the exception of offshore wind). Section 3.4 considers climate change adaption and seeks that for solar sites, sites proposed in low lying exposed areas, the applicant should consider how the plant will be resilient to increased risk of flooding and impact of higher temperatures.
- 5.3.24. Section 3.10 of dNPS EN-3 specifically relates to solar photovoltaic generation, the salient points are summarised below.
 - Paragraph 3.10.1 states how solar is a key part of government strategy for low-cost decarbonising in the energy sector.
 - Paragraph 3.10.2 identifies how solar also has an important role in delivering government's goal for greater energy independence, with a five-fold increase in solar expected by 2035.
 - Paragraph 3.10.5 confirms how solar can be built quickly.

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- Paragraph 3.10.7 identifies how ancillary infrastructure can typically include energy storage.
- Paragraph 1.10.9 to 3.10.117 sets out factors influencing site selection and design, the key points are summarised in Table 5.3

Table 5.3 dNPS EN-3 (March 2023) factors influencing design of solar

Торіс	Commentary
Irradiance and site topography	Irradiance will be a key consideration for the applicant in identifying a potential site as the amount of electricity generated on site is directly affected by irradiance levels. Irradiance of a site will in turn be affected by surrounding topography, with an uncovered or exposed site of good elevation and favourable south-facing aspect more likely to increase year-round irradiance levels. This in turn affects the carbon emission savings and the commercial viability of the site
Proximity to dwelling	Utility-scale solar farms are large sites that may have a significant zone of visual influence. The two main impact issues that determine distances to sensitive receptors are therefore likely to be visual amenity and glint and glare.
Agricultural land classification	Whilst the development of ground mounted solar arrays is not prohibited on agricultural land classified 1, 2 and 3a, or sites designated for their natural beauty, or recognised for ecological or archaeological importance, the impacts of such are expected to be considered. Where sited on agricultural land, consideration may be given as to whether the proposal allows for continued agricultural use and/or can be co-located with other functions (for example, onshore wind generation, or storage) to maximise the efficiency of land use. Applicants are encouraged to develop and implement a Soil Resources and Management Plan which could help to use and manage soils sustainably and minimise adverse impacts on soil health and potential land contamination. This should be in line with the ambition set out in the Environmental Improvement Plan to bring 60% of England's agricultural soils into sustainable management by 2030.
Accessibility	Applicants will need to consider the suitability of the access routes to the proposed site for both the construction and operation of the solar farm with the former likely to raise more issues. Applications should include the full extent of the access routes necessary for operation and maintenance and an assessment of their effects.

Public Rights of Way	Public rights of way may need to be temporarily stopped to enable construction, however, applicants should keep, as far as is practicable and safe, all public rights of way that cross the proposed development site open during construction and protect users where a public right of way borders or crosses the site. Applicants are encouraged to design the layout and appearance of the site to ensure continued recreational use of public rights of way, where possible during construction, and in particular during operation of the site. Applicants should consider and maximise opportunities to facilitate enhancements to the public rights of way and the adoption of new public rights of way through site layout and design of access.
Security and lighting	Security of the site is a key consideration for developers. Applicants may wish to consider not only the availability of natural defences such as steep gradients, hedging and rivers but also perimeter security measures such as fencing, electronic security, CCTV and lighting, with the measures proposed on a site-specific basis. Applicants should assess the visual impact of these security measures, as well as the impacts on local residents, including for example issues relating to intrusion from CCTV and light pollution in the vicinity of the site. Applicants should consider the need to minimise the impact on the landscape and the visual impact of security measures.
Network connection	To maximise existing grid infrastructure, minimise disruption to existing local community infrastructure or biodiversity and reduce overall costs applicants may choose a site based on nearby available grid export capacity. Where this is the case, applicants should consider the cumulative impacts of situating a solar farm in proximity to other energy generating stations and infrastructure.

5.3.25. Paragraphs 3.10.40 to 3.10.63 sets out technical considerations for schemes, these are summarised in Table 5.4

Table 5.4 dNPS EN-3 (March 2023) technical considerations for solar schemes

Technical Consideration	Commentary
Capacity of a site	For the purposes of determining the capacity thresholds in Section 15 of the 2008 Act, all forms of generation other than solar are currently assessed on an AC basis, while a practice has developed where solar farms are assessed on their DC capacity.
	The direct current (DC) installed generating capacity of a solar farm will decline over time in correlation with the reduction in panel array efficiency. Light induced degradation affects solar panels differently depending on the technology used to construct the panel and is one factor, along with price, that developers need to consider when deciding

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	on a solar panel technology to be used. Applicants may account for this by overplanting solar panel arrays.
Site layout design, and appearance	Applicants will consider several factors when considering the design and layout of sites, including, proximity to available grid capacity to accommodate the scale of generation, orientation, topography, previous land – use and ability to mitigate environmental impacts and flood risk.
	For a solar farm to generate electricity efficiently the panel array spacing should seek to maximise the potential power output of the site. The type, spacing and aspect of panel arrays will depend on the physical characteristics of the site such as site elevation.
Project lifetime	Applicants should consider the design life of solar panel efficiency over time when determining the period for which consent is required. An upper limit of 40 years is typical, although applicants may seek consent without a time-period or for differing time-periods of operation. Time limited consent, where granted, is described as temporary because there is a finite period for which it exists, after which the project would cease to have consent and therefore must seek to extend the period of consent or be decommissioned and removed.
Decommissioning	Solar panels can be decommissioned relatively easily and cheaply. The nature and extent of decommissioning of a site can vary. Generally, it is expected that the panel arrays and mounting structures will be decommissioned, and underground cabling dug out to ensure that prior use of the site can continue.
Flexibility in the project detail	In many cases, not all aspects of the proposal may have been settled in precise detail at the point of application. Such aspects may include: the type, number and dimensions of the panels; layout and spacing; the type of inverter or transformer; and, whether storage will be installed (with the option to install further panels as a substitute).
	Applicants should set out a range of options based on different panel numbers, types and layout, with and without storage.

5.3.26. Paragraphs 3.10.64 to 3.10.117 discusses impacts, the salient points are provided in Table 5.5

Table 5.5 dNPS EN-3 (March 20203) impact considerations for solar schemes

Commentary
The applicant's ecological assessments should identify any ecological risk from developing on the proposed site. Issues that need assessment may include habitats, ground nesting birds, wintering and migratory birds, bats, dormice, reptiles, great
crested newts, water voles and badgers. The applicant should use an advising ecologist during the design process to ensure that adverse impacts are avoided, minimised or

	mitigated in line with the mitigation hierarchy, and biodiversity enhancements are maximised.
	Applicants should consider how site boundaries are managed. If any hedges/scrub are to be removed, further surveys may be necessary to account for impacts. Buffer strips between perimeter fencing and hedges may be proposed, and the construction and design of any fencing should account for enabling mammal, reptile and other fauna access into the site if required to do so in the ecological report. Solar farms have the potential to increase the biodiversity value of a site, especially if the land was previously intensively managed. In some instances, this can result in significant benefits and enhancements beyond Biodiversity Net Gain, which result in wider environmental gains which is encouraged.
	For projects in England, applicants should consider enhancement, management, and monitoring of biodiversity in line with the ambition set out in the Environmental Improvement Plan and any relevant measures and targets, including statutory targets set under the Environment Act or elsewhere.
	Applicants should consider whether they need to provide geotechnical and hydrological information (such as identifying the presence of peat at each site) to any development work.
Landscape, visual and residential amenity	Solar farms are likely to be in low lying areas of good exposure and as such may have a wider zone of visual influence than other types of onshore energy infrastructure. However, whilst it may be the case that the development covers a significant surface area, in the case of ground-mounted solar panels it should be noted that with effective screening and appropriate land topography, the area of a zone of visual influence could be appropriately minimised. The applicant should consider as part of the design, layout, construction, and future maintenance plans how to protect and retain, wherever
	possible, the growth of vegetation on site boundaries, as well as the growth of existing hedges, established vegetation, including mature trees within boundaries. Applicants should also consider opportunities for individual trees within the boundaries to grow on to maturity.
Glint & glare	Solar panels are specifically designed to absorb, not reflect, irradiation. However, solar panels may reflect the sun's rays at certain angles, causing glint and glare. Glint is defined as a momentary flash of light that may be produced as a direct reflection of the sun in the solar panel. Glare is a continuous source of excessive brightness experienced by a stationary observer located in the path of reflected sunlight from the face of the panel. The effect occurs when the solar panel is stationed between or at an angle of the sun and the receptor. Applicants should map receptors to qualitatively identify potential glint and glare issues and determine if a glint and glare assessment is necessary as part of the application.
	When a quantitative glint and glare assessment is necessary, applicants are expected to consider the geometric possibility of glint and glare affecting nearby receptors and provide an assessment of potential

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	impact and impairment based on the angle and duration of incidence and the intensity of the reflection.
Cultural Heritage	Where a site on which development is proposed includes, or has the potential to, include heritage assets with archaeological interest, the applicant should submit an appropriate desk-based assessment and, where necessary, a field evaluation. These should be carried out, using expertise where necessary and in consultation with the local planning authority, and should identify archaeological study areas and propose appropriate schemes of investigation, and design measures, to ensure the protection of relevant heritage assets. In some instances, field studies may include investigative work (and may include trial trenching beyond the boundary of the proposed site) to assess the impacts of any ground disturbance, such as proposed cabling, substation foundations or mounting supports for solar panels on archaeological assets.
	The extent of investigative work should be proportionate to the sensitivity of, and extent of proposed ground disturbance in, the associated study area.
Construction including traffic and transport noise and vibration	Modern solar farms are large sites that are mainly comprised of small structures that can be transported separately and constructed on-site, with developers designating a compound on-site for the delivery and assemblage of the necessary components.
	Many solar farms will be sited in areas served by a minor road network. Public perception of the construction phase of solar farm will derive mainly from the effects of traffic movements, which is likely to involve smaller vehicles than typical onshore energy infrastructure but may be more voluminous.
	Applicants should assess the various potential routes to the site for delivery of materials and components where the source of the materials is known at the time of the application and select the route that is the most appropriate.
	Applicants should ensure all sections of roads and bridges on the proposed delivery route can accommodate the weight and volume of the loads and width of vehicles.
	Where a cumulative impact is likely because multiple energy infrastructure developments are proposing to use a common port and/or access route and pass through the same towns and villages, applicants should include a cumulative transport assessment as part of the ES.

5.3.27. Potential mitigation measures are discussed through paragraphs 3.10.118 to 3.10.135, the salient matters are presented in Table 5.6

Table 5.6 dNPS EN-3 (March 2023) potential mitigation measures for solar schemes

Mitigation	Commentary

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Agricultural land classification	The Defra Construction code of practice for the sustainable use of soils on construction sites provides guidance on ensuring that damage to soil during construction is mitigated and minimised. Mitigation measures focus on minimising damage to soil that remains in place, and minimising damage to soil being excavated and stockpiled. The measures aim to preserve soil health and soil structure to minimise soil carbon loss and maintain water infiltration and soil biodiversity. Mitigation measures for agricultural soils include use of green cover, multispecies cover crops – especially during the winter– minimising compaction and adding soil organic matter.
Biodiversity and ecological conservation	In England, proposed enhancements should aim to achieve environmental and biodiversity net gain in line with the ambition set out in the Environmental Improvement Plan and any relevant measures and targets, including statutory targets set under the Environment Act or elsewhere. This might include maintaining or extending existing habitats and potentially creating new important habitats, for example by installing cultivated strips/plots for rare arable plants, rough grassland margins, bumble bee plant mixes, and wild bird seed mixes. Applicants are advised to develop an ecological monitoring programme to
	monitor impacts upon the flora of the site and upon any particular ecological receptors (such as bats and wintering birds). Results of the monitoring will then inform any changes needed to the land management of the site, including, if appropriate, any livestock grazing regime.
Landscape and visual	Applicants should consider the potential to mitigate landscape and visual impacts through, for example, screening with native hedges, trees and woodlands. Applicants should aim to minimise the use and height of security fencing. Where possible applicants should utilise existing features, such as hedges or landscaping, to assist in site security or screen security fencing. Applicants should minimise the use of security lighting. Any lighting should utilise a passive infra-red (PIR) technology and should be designed and installed in a manual probability of screen security.
Glint & glare	installed in a manner which minimises impact. Applicants should consider using, and in some cases the Secretary of State may require, solar panels to comprise of (or be covered with) anti-glare/anti- reflective coating with a specified angle of maximum reflection attenuation for the lifetime of the permission.
	Applicants may consider using screening between potentially affected receptors and the reflecting panels to mitigate the effects. Applicants may consider adjusting the azimuth alignment of or changing the elevation tilt angle of a solar panel, within the economically viable range, to alter the angle of incidence. In practice this is unlikely to remove the potential impact altogether but in marginal cases may contribute to a mitigation strategy.
Cultural Heritage	The ability of the applicants to microsite specific elements of the proposed development during the construction phase should be an important consideration by the Secretary of State when assessing the risk of damage to archaeology. Where requested by the applicant, the Secretary of State should consider
	granting consents which allow for the micro-siting within a specified

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	tolerance of elements of the permitted infrastructure so that precise locations can be amended during the construction phase if unforeseen circumstances, such as the discovery of previously unknown archaeology, arise.
Construction	Consultees may impose controls on the number of vehicle movements to and from the solar farm site in a specified period during its construction and, possibly, on the routeing of such movements particularly by heavy vehicles. Where cumulative effects on the local road network or residential amenity are predicted from multiple solar farm developments, it may be appropriate for applicants for various projects to work together to ensure that the number of abnormal loads and deliveries are minimised, and the timings of deliveries are managed and coordinated to ensure that disruption to residents and other highway users is reasonably minimised. It may also be appropriate for the highway authority to set limits for and coordinate these deliveries through active management of the delivery schedules through the abnormal load approval process. Once consent for a scheme has been granted, applicants should liaise with the relevant local highway authority (or other coordinating body) regarding the start of construction and the broad timing of deliveries. Applicants may need to agree a planning obligation to secure appropriate measures, including restoration of roads and verges.

5.3.28. Factors for the Secretary of State to consider in the decision making process are listed through paragraphs 3.10.136 to 3.10.153, the salient matters are summarised in Table 5.7.

Table 5.7 dNPS EN-3 (March 2023) Factors for S	Secretary of State to consider when
determining solar schemes	

Secretary of State decision making	Commentary
Agricultural land classification	The Secretary of State should take into account the economic and other benefits of the best and most versatile agricultural land. The Secretary of State should ensure that the applicant has put forward appropriate mitigation measures to minimise impacts on soils or soil resources.
Project lifetime and decommissioning	Where the consent for a solar farm is to be time-limited, the DCO should impose a requirement setting that time-limit from the date the solar farm starts to generate electricity.
	Such a requirement should also secure the decommissioning of the generating station after the expiration of its permitted operation to ensure that inoperative plant is removed after its operational life.
	The time limited nature of the solar farm, where a time limit is sought as a condition of consent, is likely to be an important consideration for the Secretary of State.
	The Secretary of State should consider the period of time the applicant is seeking to operate the generating station as well as the extent to which the site will return to its original state when assessing impacts such as landscape

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	and visual effects and potential effects on the settings of heritage assets and nationally designated landscapes.
Biodiversity and ecological conservation	The Secretary of State must consider the worst-case effects in its consideration of the application and consent. Where developments are proposed on peat, to ensure the development will result in minimal disruption to the ecology, or release of CO2 and that the carbon balance savings of the scheme are maximised, the Secretary of State should be satisfied that the solar farm layout and construction methods have been designed to minimise soil disturbance during construction and maintenance of roads, tracks, and other infrastructure.
Landscape and visual	The Secretary of State will consider the landscape and visual impact of any proposed solar PV farm, taking account of any sensitive visual receptors, and the effect of the development on landscape character, together with the possible cumulative effect with any existing or proposed development.
Glint and glare	Solar PV panels are designed to absorb, not reflect, irradiation. However, the Secretary of State should assess the potential impact of glint and glare on nearby homes, motorists, public rights of way, and aviation infrastructure (including aircraft departure and arrival flight paths). Whilst there is some evidence that glint and glare from solar farms can be experienced by pilots and air traffic controllers in certain conditions, there is no evidence that glint and glare from solar farms results in significant impairment on aircraft safety. Therefore, unless a significant impairment can be demonstrated, the Secretary of State is unlikely to give any more than limited weight to claims of aviation interference because of glint and glare from solar farms
Cultural Heritage	Solar farms are generally consented on the basis that they will be time- limited in operation. The Secretary of State should therefore consider the length of time for which consent is sought when considering the impacts of any indirect effect on the historic environment, such as effects on the setting of designated heritage assets.
Construction	Once solar farms are in operation, traffic movements to and from the site are generally very light, in some instances as little as a few visits each month by a light commercial vehicle or car. Should there be a need to replace machine components, this may generate heavier commercial vehicle movements, but these are likely to be infrequent. 3.10.153 The Secretary of State is unlikely to give any more than limited weight to traffic and transport noise and vibration impacts from the operational phase of a project

Draft National Policy Statement for Electrical Networks Infrastructure EN-5 (March 2023)

5.3.29. The dNPS EN-5 2023 amendments related to policy strengthening to include more detail on the role of strategic planning or networks and updates to civil and military aviation and defence interest to reflect the status of energy developments. Paragraph 1.6.1 identified how infrastructure covered by the dNPS EN-5 includes the transmission system and associated infrastructure such as substations (the essential link between generation, transmission, and the distribution system).

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- 5.3.30. Paragraph 2.2.1 states how Secretary of State should be mindful that the initial and terminating points of new electrical networks infrastructure is not substantially within the control of the applicant. Paragraph 2.2.2 identifies how siting is determined by the location of new generating stations or other infrastructure requiring connection to the network, and/or system capacity and resilience requirements determined by the Electricity System Operator.
- 5.3.31. Paragraph 2.5.1 identifies how the linear nature of electricity networks can allow for excellent opportunities to reconnect important habitats via a green corridors, biodiversity stepping zones and reestablishment of appropriate hedgerows.

5.4. National Planning Policy Framework

- 5.4.1. Paragraph 8 of the Framework identifies how the planning system has three overarching objectives towards achieving sustainable development. The NPPF stated how these objectives are interdependent and need to be pursued in mutually supportive ways so that opportunities can be taken to secure net gains across each of the different objectives.
- 5.4.2. The three overarching objectives are listed as:
 - an economic objective to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;
 - a social objective to support strong, vibrant and healthy communities, by ensuring that
 a sufficient number and range of homes can be provided to meet the needs of present
 and future generations; and by fostering a well-designed and safe built environment, with
 accessible services and open spaces that reflect current and future needs and support
 communities' health, social and cultural well-being; and
 - an environmental objective to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting.
- 5.4.3. Paragraph 8(a) 'an economic objective' it clear how *"identifying and coordinating provision of infrastructure"* is integral towards fulfilling the economic arm of achieving sustainable development.
- 5.4.4. As acknowledged by the PPG on renewable and low carbon energy, the proposal will contribute towards the three objectives of sustainability by, amongst other things, help to make sure the UK has a secure energy supply, reduce greenhouse gas emissions to slow down climate change and stimulate investment in new jobs and businesses.
- 5.4.5. Paragraph 9 advises how these overarching objectives should be delivered through the preparation and implementation of plans and the application of policies in the Framework. Paragraph 10 states "So that sustainable development is pursued in a positive way, at the heart of the Framework is a presumption in favour of sustainable development".
- 5.4.6. Paragraph 15 of the Framework sets out how the planning system should be genuinely plan-led. It goes on to state how succinct and up-to-date plans should provide a positive vision for the

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future of each and provide a framework for assessing the economic, social and environmental priorities. Paragraph 16 set out how plans should be prepared with the objective of contributing to the achievement of sustainable development. Paragraph 20 identifies how, in line with the presumption on favour of sustainable development, plans should make sufficient provision for the provision of infrastructure and energy.

- 5.4.7. The identification and delivery of energy schemes is therefore acknowledged by the NPPF as one of the strategic policies that contributes towards achieving the presumption on favour of sustainable development. Paragraph 81 confirms the Government's commitment to supporting sustainable economic growth and states (inter alia) "*Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development. The approach taken should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future".*
- 5.4.8. Paragraph 84, supporting a prosperous rural economy, it states how planning decisions should enable the sustainable growth of all types of businesses in the rural areas; and the development and diversification of agricultural and other land-based rural businesses.
- 5.4.9. Section 14 of the NPPF relates to meeting the challenge of climate change, flooding and coastal change. **Paragraph 155** of the NPPF sets out the planning policy perspective with regards to increasing the use and supply of renewable and low carbon energy. Through the paragraph, Government requires the decision maker to:

a) provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts);

b) consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and

c) identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers.

- 5.4.10. Section 15 of the NPPF relates to conservation and enhancement of the natural environment. Paragraph 174 highlights that new development should be prevented from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability. It identifies how decisions should provide net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.
- 5.4.11. Footnote 58 states "Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality". Annex 2 of the Framework provides a glossary of terms and defines 'best and most versatile agricultural land' as land in grades 1, 2 and 3a of the Agricultural Land Classification.
- 5.4.12. Section 16 of the NPPF is concerned with 'Conserving and enhancing the historic environment'. It identifies heritage assets as 'an irreplaceable resource' and notes that they should be

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conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations. Paragraph 199 of the NPPF states that where development proposals are likely to affect a designated heritages asset, great weight should be given to the asset's conservation and any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting) should require clear and convincing justifications. Paragraphs 201 and 202 continue to state:

"Where a proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or total loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:

the nature of the heritage asset prevents all reasonable uses of the site; and

no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and

conservation by grant-funding or some form of not for profit, charitable or public ownership is demonstrably not possible; and

the harm or loss is outweighed by the benefit of bringing the site back into use.

Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use".

5.4.13. Overall, the Framework confirms that the primary objective of development management is to foster the delivery of sustainable development, not to hinder or prevent it. Decision makers should approach development management decisions positively – looking for solutions rather than problems so that applications can be approved wherever it is practical to do so.

5.5. Planning Practice Guidance (PPG)

- 5.5.1. Government's Planning Practice Guidance is a web-based resource that provides planning guidance on various planning policy and development management topics. The key topics relevant to this application proposal are:
 - Climate Change;
 - Renewable and Low Carbon Energy;
 - Historic Environment;
 - Natural Environment;
 - Open Space, Sports and Recreation Facilities, Public rights of Way and Local Green Space; and

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• Strategic Environmental Assessment and Sustainability Appraisal.

Renewable and Low Carbon Energy

5.5.2. This guidance reaffirms Government's commitment towards increasing the amount of renewable energy and low carbon technologies within the UK. Paragraph 007 of the guidance considers the role of criteria based polices in planning for renewable energy and states: –

Policies based on clear criteria can be useful when they are expressed positively (i.e. that proposals will be accepted where the impact is or can be made acceptable). In thinking about criteria the National Policy Statements published by the Department of Energy and Climate Change provide a useful starting point. These set out the impacts particular technologies can give rise to and how these should be addressed. In shaping local criteria for inclusion in Local Plans and considering planning applications in the meantime, it is important to be clear that: the need for renewable or low carbon energy does not automatically override environmental protections; cumulative impacts require particular attention, especially the increasing impact that wind turbines and large scale solar farms area increases; local topography is an important factor in assessing whether wind turbines and large scale solar farms could have a damaging effect on landscape and recognise that the impact can be as great in predominately flat landscapes as in hilly or mountainous areas; great care should be taken to ensure heritage assets are conserved in a manner appropriate to their significance, including the impact of proposals on views important to their setting; proposals in National Parks and Areas of Outstanding Natural Beauty, and in areas close to consideration; protecting local amenity is an important consideration which should be given proper weight in planning decisions.

5.5.3. Paragraph O13 of the guidance sets out the planning considerations that relate to large scale ground-mounted solar photovoltaic farms. It states: -

The deployment of large-scale solar farms can have a negative impact on the rural environment, particularly in undulating landscapes. However, the visual impact of a wellplanned and well-screened solar farm can be properly addressed within the landscape if planned sensitively. Particular factors a local planning authority will need to consider include:

encouraging the effective use of land by focussing large scale solar farms on previously developed and non-agricultural land, provided that it is not of high environmental value;

where a proposal involves greenfield land, whether (i) the proposed use of any agricultural land has been shown to be necessary and poorer quality land has been used in preference to higher quality land; and (ii) the proposal allows for continued agricultural use where applicable and/or encourages biodiversity improvements around arrays. See also a speech by the Minister for Energy and Climate Change, the Rt Hon Gregory Barker MP, to the solar PV industry on 25 April 2013 and Written Ministerial Statement – Solar energy: protecting the local and global environment – made on 25 March 2015.

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that solar farms are normally temporary structures and planning conditions can be used to ensure that the installations are removed when no longer in use and the land is restored to its previous use;

the proposal's visual impact, the effect on landscape of glint and glare (see guidance on landscape assessment) and on neighbouring uses and aircraft safety;

the extent to which there may be additional impacts if solar arrays follow the daily movement of the sun;

the need for, and impact of, security measures such as lights and fencing;

great care should be taken to ensure heritage assets are conserved in a manner appropriate to their significance, including the impact of proposals on views important to their setting. As the significance of a heritage asset derives not only from its physical presence, but also from its setting, careful consideration should be given to the impact of large scale solar farms on such assets. Depending on their scale, design and prominence, a large scale solar farm within the setting of a heritage asset may cause substantial harm to the significance of the asset;

the potential to mitigate landscape and visual impacts through, for example, screening with native hedges;

the energy generating potential, which can vary for a number of reasons including, latitude and aspect.

The approach to assessing cumulative landscape and visual impact of large scale solar farms is likely to be the same as assessing the impact of wind turbines. However, in the case of ground-mounted solar panels it should be noted that with effective screening and appropriate land topography the area of a zone of visual influence could be zero.

5.5.4. Paragraphs O32 – O36 of the guidance provide new considerations for Battery Storage Systems. It states:

Electricity storage can enable us to use energy more flexibly and de-carbonise our energy system cost-effectively – for example, by helping to balance the system at lower cost, maximising the usable output from intermittent low carbon generation (e.g. solar and wind), and deferring or avoiding the need for costly network upgrades and new generation capacity.

When applying for planning permission for development involving lithium-ion battery energy storage systems these are subject to the requirements set out in The Town and Country Planning (Development Management Procedure) (England) Order 2015.

Where planning permission is being sought for development of battery energy storage systems of 1 MWh or over, and excluding where battery energy storage systems are associated with a residential dwelling, applicants are encouraged to engage with the relevant local fire and rescue service before submitting an application to the local planning

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authority. This is so matters relating to the siting and location of battery energy storage systems, in particular in the event of an incident, prevention of the impact of thermal runway, and emergency services access can be considered before an application is made.

Applicants are also encouraged to consider guidance produced by the National Fire Chiefs Council (PDF, 488 KB) when preparing the application.

The location of such sites are of particular interest to fire and rescue services; who will seek to obtain details of the design, and firefighting access and facilities at these sites in their register of site specific risks that they maintain for the purposes of Section 7 of the Fire and Rescue Services Act 2004.

When planning applications for the development of battery energy storage systems of 1 MWh or over, and excluding where battery energy storage systems are associated with a residential dwelling, are submitted to a local planning authority, the local planning authority are encouraged to consult with their local fire and rescue service as part of the formal period of public consultation prior to deciding the planning application. This is to ensure that the fire and rescue service are given the opportunity to provide their views on the application to identify the potential mitigations which could be put in place in the event of an incident, and so these views can be taken into account when determining the application.

Local planning authorities are also encouraged to consider guidance produced by the National Fire Chiefs Council (PDF, 488 KB) when determining the application.

5.5.5. Importantly, the guidance acknowledges the appropriate use of agricultural land for renewable energy provided it allows for continued agricultural use and/or encourages biodiversity improvements around arrays; and the use of the agricultural land has been demonstrated as necessary. The guidance also identifies how ground mounted solar schemes are temporary structures whereby planning conditions can be used to ensure that the installations are removed when no longer in use and the land is restored to its previous use.

Practical Guidance on Climate Change

- 5.5.6. Government's Practical Guidance on Climate Change identifies how addressing climate change is one of the core land use planning principles which the National Planning Policy Framework expects to underpin in both plan-making and decision-taking. Paragraph 3 sets out examples of mitigating climate change by reducing emissions, these include (i) Providing renewable and low carbon energy technologies and (ii) providing opportunities for decentralised energy. The proposal would achieve both.
- 5.5.7. Paragraph 5 of the guidance identifies how impacts of climate change needs to be taken into account in a realistic way. It goes on to state that local planning authorities should consider identifying no or low-cost responses to climate change that also deliver other benefits. In this instance the proposal is landowner and developer led; and as such there is no financial costs associated with the delivery of this response to climate change for the Local Planning Authority. Furthermore, the development proposal would deliver other climate change benefits such as biodiversity and hydrological enhancements.

5.6. The Development Plan

- 5.6.1. The Act, as amended, does not incorporate Section 38(6) of the Planning and Compulsory Purchase Act 2004, which provides the principal basis in legislation for the determination of planning applications under the Town and Country Planning Act 1990, namely that they must be determined in accordance with the statutory development plan unless material considerations indicate otherwise. Applications for development consent made under the Planning Act are determined as set out above. The local development plan is not therefore the starting point for the consideration of an application for development consent. Nevertheless, local policy has been considered through the EIA process where relevant.
- 5.6.2. Table 5.8 outlines the local development plan documents that will be considered during the EIA process. During the ongoing iteration of the PEIR, emerging policy will be kept under review and considered where relevant.

Authority	Development Plan
City of Doncaster Council	Doncaster Local Plan 2015 to 2035 (adopted 23 September 2021)
	The Barnsley, Doncaster and Rotherham Joint Waste Plan (adopted March 2012)
	Thorne-Moorends Neighbourhood Plan – The Thorne and Moorends Town Council published their draft Neighbourhood Plan for 6 week consultation in October 2026. At its Full Council Meeting on 14 February 2023 to complete the Neighbourhood Plan, but acknowledged it would be essential to secure funding to support evidence base, predominantly in relation to flood risk and housing needs.
North Lincolnshire Council	The North Lincolnshire Local Development Framework: The Core Strategy (adopted June 2011)
	Housing and Employment Land Allocations Development Plan Document (adopted March 2016)
	Lincolnshire Lakes Area Action Plan Development Plan Document (adopted May 2016)
	SuDS and Flood Risk Guidance Document (April 2017)
	Planning for Renewable Energy Development Supplementary Planning Document (November 2011)
	Planning for Solar Photovoltaic Developments Supplementary Planning Document (January 2016)

Table 5.8 Local Development Plans

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On 11 November 2022, North Lincolnshire Council
submitted its emerging draft Local Plan to the Secretary
of State for an Examination in Public under Regulation 22
of the Town and Country Planning (Local Planning)
(England) Regulations 2012. The applicant will keep under
review the progress of the examination.