



UK Government

Department for Energy Security & Net Zero

National Policy Statement for Nuclear Energy Generation EN-7

Department for Energy Security & Net Zero

National Policy Statement for Nuclear Energy Generation EN-7

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1 Introduction

1.1 Background

- 1.1.1 The demand for electricity is likely to increase significantly over the coming years, with the potential for demand to more than double by 2050,¹ even with significant improvements in energy efficiency. New low-carbon energy generating capacity is essential to affordably meet this demand, while improving the UK's energy security and working towards net zero emissions. This urgency is recognised in the overarching energy National Policy Statement, EN-1, designated in January 2024, which sets out a "Critical National Priority" for low-carbon energy infrastructure.
- 1.1.2 Nuclear energy provides an abundant, safe and reliable source of low carbon energy that will play a vital role in ensuring a secure, stable and affordable energy system for the future. The UK has a longstanding history of deploying nuclear technologies at scale, and in 2023, nuclear energy provided the second largest share (approximately 23%) of low carbon electricity generation in the UK.² As a low carbon energy source, nuclear energy offers a cleaner source of energy that will contribute to net zero ambitions. For example, it is estimated that the Hinkley Point C station will avoid around nine million tonnes of carbon dioxide emissions per year in comparison to a gas-fired power station and cause lower carbon emissions per unit of electricity across its life cycle than offshore wind or solar.³ It will generate enough electricity to supply six million homes.
- 1.1.3 The existing programme of construction, operation and decommissioning of nuclear infrastructure provides significant socioeconomic benefits, with 96,000 people employed in the UK's civil and defence nuclear sectors in 2024.⁴ As of 2025, the new Hinkley Point C power station has provided 26,000 new employment opportunities, invested £24 million into education, skills and employment, and spent £5.3 billion with regionally based businesses.⁵
- 1.1.4 In addition to these traditional large-scale nuclear power stations, newer technologies, including Small Modular Reactors and Advanced Modular Reactors, are looking to provide quicker and more flexible deployment. These technologies also provide a route for enhanced capability in engineering and

¹ Modelling 2050 – electricity system analysis published on gov.uk in December 2020

² The government publishes regular updates to electricity statistics on gov.uk

³ Hinkley Point C emissions are based on a 2021 Lifecycle Assessment estimate. Gas, offshore wind and solar emissions are based on median 2014 estimates from the Intergovernmental Panel on Climate Change.

⁴ Nuclear Skills Delivery Group's Nuclear Workforce Assessment, published in 2024

⁵ EDF Energy has published data on Realising Socio-Economic Benefits of Hinkley Point C on its website, including annual socio-economic impact reports

manufacturing through innovation, advanced techniques and new facilities. High-skilled manufacturing jobs for the future will be crucial for underpinning the rollout of these new technologies in the UK, as well as putting the UK at the centre of the international programme of deployment.

- 1.1.5 This National Policy Statement, taken with the Overarching National Policy Statement for Energy (EN-1), provides the primary policy for decisions by the Secretary of State for Energy Security and Net Zero (henceforth, 'the Secretary of State', with other Secretaries of State specified where they have responsibilities other than for Energy Security and Net Zero) on applications for Development Consent they receive relating to infrastructure using nuclear fission to generate energy, as defined in Section 1.6 of this National Policy Statement.
- 1.1.6 The way in which National Policy Statements on energy infrastructure guide Secretary of State decision making, and the matters which the Secretary of State is required by the Planning Act 2008 to take into account in considering applications, are set out in the 'Introduction; Background' and 'Assessment Principles; General Policies and Considerations' sections of EN-1.
- 1.1.7 As set out in the need for new nationally significant infrastructure section of EN-1, the government is committed to ensuring the UK's energy supply is secure, reliable, affordable and consistent with the ambition to have net zero carbon emissions in 2050. Having a range of domestic low-carbon energy sources is crucial for delivering these targets. EN-1 sets out the need for nuclear energy for electricity generation and hydrogen production, and requires the consideration of combined heat and electricity supply. EN-1 states that further new nuclear infrastructure beyond the Hinkley Point C nuclear power station will be required to deliver energy objectives. In meeting this need, it is for applicants to bring forward proposals that balance generation capacity, cost and ensuring their projects are safe, deliverable and apply the mitigation hierarchy to any adverse impacts of construction and operation.
- 1.1.8 The applicant must ensure that their application is consistent with the instructions given to applicants in this National Policy Statement, EN-1 and any other National Policy Statements that are relevant to the application in question.
- 1.1.9 This National Policy Statement may also be helpful to local planning authorities in preparing their local impact reports and to all Interested Parties who are involved in a particular application, given the important status in planning law of the National Policy Statement.

1.2 Role of this National Policy Statement in the wider planning system

- 1.2.1 The Role of this NPS in the wider planning system and Scope of the Overarching National Policy Statement for Energy sections of EN-1 provide details on the role of EN-1, and the technology specific National Policy Statements, including this National Policy Statement, EN-7, in the wider planning system.

1.3 Relationship with EN-1

- 1.3.1 This National Policy Statement is part of a suite of energy infrastructure National Policy Statements. It should be read in conjunction with EN-1 and other relevant National Policy Statements, such as EN-5 which concerns electricity networks infrastructure.
- 1.3.2 EN-1 applies to all applications covered by this National Policy Statement unless stated otherwise.

1.4 Geographical coverage

- 1.4.1 This National Policy Statement, together with EN-1, is the primary decision-making policy document for the Secretary of State on nuclear infrastructure, as defined by Section 1.6 of this National Policy Statement, in England and Wales.
- 1.4.2 In Scotland, the Secretary of State will not examine applications for nuclear energy generating stations.
- 1.4.3 The Secretary of State has no functions in relation to planning applications in Wales and Scotland that do not relate to nationally significant infrastructure. However, energy policy is generally a matter reserved to UK Ministers and this National Policy Statement may therefore be a relevant consideration in planning decisions in Wales and Scotland.
- 1.4.4 In Northern Ireland, policy and planning consents for all energy infrastructure projects are devolved to the Northern Ireland Executive, so the Secretary of State will not examine applications for energy infrastructure in Northern Ireland, including nuclear energy infrastructure.

1.5 Period of validity and review

- 1.5.1 This NPS will remain in force in its entirety unless withdrawn or suspended in whole or in part by the Secretary of State. It will be subject to review by the

Secretary of State in order to ensure that it remains appropriate and may be reviewed regularly according to a statutory requirement.

- 1.5.2 It is possible that references to material outside this National Policy Statement may be rendered obsolete by updates or revisions. Should this occur, applicants should seek up to date information from the relevant body.

1.6 Infrastructure covered by this National Policy Statement

- 1.6.1 This National Policy Statement has effect in relation to ‘nuclear infrastructure’ defined as infrastructure using nuclear fission to generate energy, as well as to any infrastructure ancillary to this (including that set out in relevant provisions of the Scope of the Overarching National Policy Statement for Energy section of EN-1) that is:
- A. defined as a Nationally Significant Infrastructure Project by the Planning Act 2008 (as amended)
 - B. treated as development for which Development Consent is required according to Section 35 and 35ZA of the Planning Act 2008 (as amended)
- 1.6.2 The developer of a nuclear infrastructure project that is not defined as a Nationally Significant Infrastructure Project by the Planning Act 2008 (as amended), may request that their project is considered within the Nationally Significant Infrastructure Project Development Consent regime established by the Planning Act 2008 (as amended), rather than within the local planning regime. If the developer makes a qualifying request, and the Secretary of State is satisfied that the infrastructure is nationally significant, the Secretary of State may give a direction that the proposal will be treated as development for which Development Consent is required, according to Sections 35 and 35ZA of the Planning Act 2008. This direction would remove the requirement for the proposal to secure other forms of approval, including Planning Permission, which are listed in Sub-Sections 33(1) and 33(2) of the Planning Act 2008 (as amended).
- 1.6.3 Where the interim storage of radioactive waste and/or spent nuclear fuel produced by the proposed nuclear infrastructure will be within the site of the proposed nuclear infrastructure, the Secretary of State will consider it part of the proposed nuclear infrastructure and so it will fall within the scope of this National Policy Statement, EN-1, and other relevant National Policy Statements. The interim storage of radioactive waste and spent nuclear fuel is addressed further in Section 2.6 of this National Policy Statement and throughout the document.

- 1.6.4 Geological disposal facilities are not within the scope of this National Policy Statement; please see the separate National Policy Statement for geological disposal facilities.⁶
- 1.6.5 Infrastructure using nuclear fusion to generate energy are not within the scope of this National Policy Statement. A consultation on the scope of a fusion energy National Policy Statement closed on the 17 July 2024, seeking views from industry, regulators and the public on initial proposals for a bespoke fusion energy National Policy Statement. The Government will set out next steps in due course.

1.7 Nuclear Infrastructure Siting Approach

- 1.7.1 This National Policy Statement is designed to support nuclear infrastructure development on a more diverse range of sites, reflecting the emerging diversity in nuclear technologies. New nuclear technologies are likely to be suitable for deployment on a wider range of sites, which may differ in size to previously identified sites, and/or be closer to locations of high energy demand.
- 1.7.2 However, the sites listed in EN-6 as potentially suitable sites for nuclear infrastructure continue to have advantages for this purpose, as at the date of the designation of this National Policy Statement, including the potential to establish sufficient energy transmission infrastructure relatively swiftly and providing enough land area to accommodate nuclear infrastructure.
- 1.7.3 The sites listed in EN-6 are:
 - A. Bradwell
 - B. Hartlepool
 - C. Heysham
 - D. Hinkley Point
 - E. Oldbury
 - F. Sellafield
 - G. Sizewell
 - H. Wylfa
- 1.7.4 To develop nuclear infrastructure on the sites listed in EN-6, or on other sites, Development Consent must be secured according to this National Policy Statement, other relevant National Policy Statements, and applicable legal requirements. Such a development must also secure relevant regulatory permits, licenses and authorisations. EN-6 will remain a relevant consideration

⁶ The National Policy Statement for Geological Disposal Infrastructure, first published in July 2019, is available on [gov.uk](https://www.gov.uk)

for Development Consent Order applications for the sites listed in EN-6 and amendments to existing Development Consent Orders.

1.8 The Appraisal of Sustainability and Habitats Regulations Assessment relating to this National Policy Statement

- 1.8.1 This National Policy Statement has been subject to an Appraisal of Sustainability as required by the Planning Act 2008 and the Environmental Assessment of Plans and Programmes Regulations 2004. A Habitats Regulations Assessment has been prepared in accordance with the Conservation of Habitats and Species Regulations 2017 and the Conservation of Offshore Marine Habitats and Species Regulations 2017.
- 1.8.2 These are published alongside this National Policy Statement and are available on www.gov.uk.

2 Assessment Principles

2.1 Introduction

- 2.1.1 EN-1 sets out the general principles that should be applied in the assessment of Development Consent applications across the range of energy technologies. The Generic Impacts section of EN-1 sets out policy on the assessment of impacts which are common across a range of these technologies.
- 2.1.2 This National Policy Statement, EN-7, is concerned with criteria and other matters which are specific to applications for Development Consent to develop nuclear infrastructure. Although some relevant impacts are generic and covered to some extent in EN-1, there are specific considerations arising from nuclear infrastructure covered here. Applicants should show how their application meets the requirements in EN-1 and this National Policy Statement, applying the mitigation hierarchy,⁷ as well as any other legal and regulatory requirements.
- 2.1.3 The Secretary of State must consider this National Policy Statement and EN-1 together alongside other relevant National Policy Statements and guidance.
- 2.1.4 The Secretary of State should adopt a precautionary approach where EN-1, this National Policy Statement, or any other relevant technology specific National Policy Statement requires an applicant to apply the mitigation hierarchy to an impact. Where residual adverse effects remain after implementing such mitigation measures, in weighing those residual impacts against the benefits of the proposed development, the Secretary of State must consider the concept of "Critical National Priority" for low-carbon energy infrastructure, including nuclear infrastructure, as outlined in EN-1.
- 2.1.5 Throughout this National Policy Statement, the applicant is instructed to show within their applications for Development Consent how they propose to:
 - A. consider Factors that Influence Site Selection early in the process to eliminate unsuitable locations, and to identify sites which are advantageous from multiple perspectives
 - B. address Technical Considerations to develop safe, secure, efficient and effective nuclear infrastructure
 - C. apply the mitigation hierarchy to adverse Impacts resulting from the proposed location and design of the nuclear infrastructure, according to the

⁷ EN-1 provides further guidance on what the mitigation hierarchy is and how it should be applied.

requirements in EN-1, this National Policy Statement, and relevant legal requirements

2.2 Good Design

- 2.2.1 Nuclear infrastructure is likely to be a significant workplace, wider economic driver and landscape feature for the host location and community. Energy generation infrastructure, including nuclear infrastructure, has in the past contributed to the character of places and been a source of pride and identity for residents. Consideration of Good Design principles⁸ at an early planning stage will help create this beneficial relationship with host communities while potentially reducing cost, complexity and/or disruption at a later stage of delivery.
- 2.2.2 The Criteria for good design for Energy Infrastructure section of EN-1 sets out planning expectations for all energy infrastructure on Good Design, and this National Policy Statement makes references under specific criteria.

Applicant Assessment

- 2.2.3 Applicants should determine the appropriate design principles for their proposed infrastructure, based on consideration of Good Design principles, to help deliver relevant business, planning and regulatory requirements in an integrated way, providing wider benefits for neighbours, the business and the natural environment.

2.3 The Regulatory Justification Process and the Nationally Significant Infrastructure Project Development Consent regime

- 2.3.1 The Justification of Practices Involving Ionising Radiation Regulations 2004 (the Justification Regulations) requires the government to ensure that all new classes or types of practice resulting in exposure to ionising radiation are “justified” (by their economic, social or other benefits in relation to the health detriment they may cause) in advance of being first adopted or first approved. In relation to nuclear energy in the UK, the Justifying Authority for Regulatory Justification is the Secretary of State for Environment, Food and Rural Affairs.
- 2.3.2 Given that Justification is a separate regulatory process, a decision to grant Development Consent should not be delayed if a Regulatory Justification

⁸ Further information on design principles for national infrastructure can be found on the National Infrastructure Commission website. Planning Inspectorate Guidance on how Good Design may be delivered in applications, titled ‘Nationally Significant Infrastructure Projects: Advice on Good Design’, can be found on the gov.uk website.

decision is subject to legal challenge. If a Regulatory Justification decision is subject to legal challenge, the Secretary of State should consider whether requirements should be attached to the Development Consent Order to the effect that the order is conditional on the existence of a valid Regulatory Justification decision.

- 2.3.3 The UK has an international legal obligation to ensure that practices that produce ionising radiation, such as nuclear reactors, are justified to protect the public and the environment against dangers arising from exposure to ionising radiation. However, there are flexibilities in the regulations to reduce administrative burdens on industry. A Post-Implementation Review of the justification regulations published in 2023 by the Department of Energy Security and Net Zero clarified that justification decisions for nuclear reactors do not need to be technology specific. The administrative guidance was also updated to clarify that the Justifying Authority has broad discretion to decide how many reactors may be covered by a single decision, which should be based on expert technical evidence.

2.4 Relationship between regulatory regimes for nuclear infrastructure and the Nationally Significant Infrastructure Project Development Consent regime

- 2.4.1 The government will continue to pursue opportunities to improve the coordination between government departments, the Nationally Significant Infrastructure Project Development Consent regime, and regulatory regimes for nuclear infrastructure, to enhance the delivery of nuclear infrastructure that safely and sustainably helps the UK accelerate to Net Zero.
- 2.4.2 As with other major energy infrastructure, the regulators play an important role in ensuring the safety, security and protection of people and the environment in relation to the design, construction, operation and decommissioning of nuclear infrastructure and the transport of nuclear material. The regulators for the nuclear industry are the Environment Agency, Natural Resources Wales, the Scottish Environmental Protection Agency, the Marine Management Organisation, the Office for Nuclear Regulation, and the Department for Transport.⁹ These bodies, apart from the Scottish Environmental Protection Agency due to the scope of this document not including Scotland, are collectively referred to as the Nuclear Regulators in this National Policy Statement.
- 2.4.3 The applicant should seek to minimise the likelihood of any variance between the proposals for which Development Consent is sought, any conditions on

⁹ For the safety of nuclear transports and the safety of less sensitive nuclear material.

Development Consent, and any requirements imposed as part of a relevant permit, licence or other authorisation, by preparing for and progressing through the Development Consent and relevant regulatory processes with a view to concluding them concurrently.

- 2.4.4 The Examining Authority should not delay its advice to the Secretary of State until completion of any relevant licensing or permitting process, or recommend Development Consent is refused on the grounds that a relevant regulatory permit, licence or other authorisation is outstanding, if the relevant Nuclear Regulators have advised that they have no reason to believe that the development for which Development Consent is sought will fail to secure the relevant regulatory permits, licences and other authorisations.
- 2.4.5 The Secretary of State should not delay their decision on whether to grant Development Consent until completion of any relevant licensing or permitting process, or refuse Development Consent on the grounds that a relevant regulatory permit, licence or other authorisation is outstanding, unless they have good reason to believe a relevant regulatory permit, licence or other authorisation is unlikely to be granted. Good reason may include advice from the relevant Nuclear Regulators.
- 2.4.6 The Secretary of State and the Examining Authority should assume that regulatory regimes will operate effectively, and consider residual impacts that remain once measures required by the Nuclear Regulators and the mitigation hierarchy have been applied.
- 2.4.7 This Section and the following Sections should be read in conjunction with the Climate Change Adaptation and Resilience, Network Connection, Pollution Control and Other Environmental Regulatory Regimes, Safety and Common Law Nuisance and Statutory Nuisance sections of EN-1.

2.5 Climate change adaptation and mitigation

- 2.5.1 This National Policy Statement seeks to help to achieve the government's policy to mitigate climate change, by supporting the appropriate development of nuclear infrastructure. An appropriate increase in nuclear infrastructure is expected to increase the proportion of energy supplied by low carbon sources and reduce the proportion provided by fossil fuels, and thus reduce the UK's greenhouse gas emissions. For example, it is estimated that the Hinkley Point C nuclear power station will avoid around nine million tonnes of carbon dioxide emissions per year in comparison to a gas-fired power station and cause lower

carbon emissions per unit of electricity across its life cycle than offshore wind or solar.¹⁰

- 2.5.2 This National Policy Statement seeks to help achieve the UK's climate change adaptation policy¹¹ by requiring applicants to bring forward proposals that will be resilient to the effects of climate change without increasing risks elsewhere. As climate change is likely to increase risks to infrastructure, for example from flooding, applicants must set out how their proposed infrastructure would be resilient to:
- A. increased risk of flooding, and taking into account the long-term implications of flood risk
 - B. coastal erosion and increased risk of storm surge and rising sea levels
 - C. higher temperatures
 - D. increased risk of drought, which could lead to a lack of available process water
 - E. risks from cascading failures across multiple sectors or infrastructure networks
 - F. any other risks and safety considerations likely to be impacted by climate change
- 2.5.3 The Climate Change Adaptation and Resilience section of EN-1 sets out generic considerations that applicants and the Secretary of State must take into account to help ensure that nuclear infrastructure is resilient to climate change, and that necessary action can be taken to ensure the operation of the nuclear infrastructure over its estimated lifetime which will include construction, operation, decommissioning, and the storage of radioactive waste and spent fuel.
- 2.5.4 The Greenhouse Gas Emissions section of EN-1 sets out the generic considerations that applicants and the Secretary of State must take into account relating to the greenhouse gas emissions of the construction, operation, and decommissioning of energy infrastructure.
- 2.5.5 The Coastal Change section of EN-1, and Flood Risk section of EN-1, sets out generic considerations that applicants and the Secretary of State should take

¹⁰ Hinkley Point C emissions are based on a 2021 Lifecycle Assessment estimate. Gas, offshore wind and solar emissions are based on median 2014 estimates from the Intergovernmental Panel on Climate Change.

¹¹ The most recent version of any such policy should be referred to. The most recent such material at the time of publication: Climate change adaptation: policy information (2022).

<https://www.gov.uk/government/publications/climate-change-adaptation-policy-information/climate-change-adaptation-policy-information>.

into account in order to manage coastal change and flood risks, including climate change impacts.

- 2.5.6 Climate change considerations are embedded within the relevant Factors Influencing Site Selection, Technical Considerations and Impact criteria which ensures applicants incorporate the potential impacts of climate change into their assessments and the development proposals for which they are seeking Development Consent.
- 2.5.7 The resilience of the project to climate change should be assessed in the Environmental Statement accompanying an application. Future increased risk of flooding must be covered in the Flood Risk Assessment and consider the credible maximum scenarios advised in the most recent flood projections.

2.6 Other considerations

Impacts of multiple reactors

- 2.6.1 Applicants may wish to include more than one nuclear fission reactor in their proposals for nuclear infrastructure.
- 2.6.2 Newer nuclear reactors may have smaller individual energy generation and site footprints than previous developments, which could enable a greater number of small reactors to be deployed at a single site, the siting of different nuclear infrastructure types at the same site, or multiple reactors being deployed on a site, or on sites connected to each other, during multiple distinct phases.
- 2.6.3 Applicants wishing to deploy reactors in multiple phases may apply for a single Development Consent Order which provides for development in phases (including the compulsory purchase of land for each phase), or seek a Development Consent Order for each separate phase of development as their intentions for the site evolve over time.
- 2.6.4 Applicants will not be penalised for not achieving the maximum scope of a Development Consent Order (for example, if they only develop the first phase of a Development Consent Order providing for multiple phases) provided they have met a minimum threshold of development which generates the sufficient benefits without exceeding a defined level of one or more negative impacts.

Project Design

- 2.6.5 If an applicant wishes to secure a Development Consent Order providing for multiple phases of nuclear infrastructure development, the applicant must ensure each phase meets the expectations set out in this National Policy Statement and other relevant National Policy Statements, along with any relevant legal and regulatory requirements. This will involve articulating the

benefits and impacts of each phase of development, and how those impacts will be mitigated.

- 2.6.6 The applicant must outline the range of scenarios under which the development is acceptable, including any controls necessary within those scenarios and the appropriate mitigation measures as needed at each stage. The control framework should define how and when additional mitigations are required as the project progresses. Cumulative impacts will be taken into account where relevant.

Secretary of State Decision Making

- 2.6.7 The Secretary of State must be satisfied that any proposal for phased infrastructure development meets the criteria set out in paragraphs 2.6.5 and 2.6.6 in this National Policy Statement.

Radioactive waste and spent nuclear fuel

- 2.6.8 New nuclear infrastructure will produce spent fuel and a range of different types of waste that will need to be managed in specific ways based on their type and the level of risk posed. This is the same as the approach taken for spent fuel and wastes from existing nuclear infrastructure. In May 2024, the UK Government and Devolved Administrations updated the policies on nuclear decommissioning and managing radioactive substances including the management of radioactive waste and spent fuel.¹²
- 2.6.9 Most waste from nuclear infrastructure is low in radioactivity and can be disposed of safely in existing facilities such as conventional landfill sites and specialised near-surface disposal facilities, including the Low Level Waste Repository in Cumbria.
- 2.6.10 The remaining more hazardous waste, including spent nuclear fuel once it is declared as waste, is currently stored safely and securely in facilities around the country, and the UK Government has plans in place for a geological disposal facility to permanently dispose of this waste. A process is underway to identify a suitable site for a geological disposal facility in England and Wales. Further information on the siting process in England can be found in Appendix 1 and in Wales in Appendix 2 of the 2024 policy framework “Managing radioactive substances and nuclear decommissioning: UK policy framework”.¹³ As a Nationally Significant Infrastructure Project, planning decisions relating to

¹² See the Managing radioactive substances and nuclear decommissioning consultation, first published in March 2023, on gov.uk

¹³ As above.

geological disposal infrastructure will be made on the basis of the framework set out in the National Policy Statement for Geological Disposal Infrastructure¹⁴.

- 2.6.11 The UK has robust legislative and regulatory systems in place for the management (including interim storage, disposal and transport) of radioactive waste. Through environmental assessment, environmental permitting and nuclear site licensing, applicants will be required to demonstrate that spent fuel and the most hazardous radioactive waste arising from the operation of the nuclear infrastructure can be managed within the planned UK geological disposal facility. Applicants will also be required by environmental assessment, environmental permitting and nuclear site licensing to demonstrate that there will be safe, secure and environmentally acceptable interim storage arrangements until a geological disposal facility can accept the waste.
- 2.6.12 Proposals for waste management facilities (such as interim storage facilities for radioactive waste and spent fuel prior to ultimate disposal in a geological disposal facility) that either form part of the development of the Nationally Significant Infrastructure Project or constitute “associated development” for the purposes of the Planning Act 2008 should be considered by the Secretary of State in the same way as the rest of the Nationally Significant Infrastructure Project using the principles and policies set out in EN-1, this National Policy Statement, the provisions of the Planning Act 2008 and other relevant principles and policies.

Secretary of State Decision Making

- 2.6.13 In the absence of an appropriate proposal for the radioactive waste and/or spent fuel produced within the proposed nuclear infrastructure to be stored in the interim, prior to disposal, away from the site of the proposed infrastructure, the Secretary of State should require that:
- A. spent fuel is stored within the site of the proposed nuclear infrastructure until it has cooled sufficiently for disposal within the current and planned UK disposal facilities, including a geological disposal facility, and
 - B. appropriate types of radioactive waste are stored within the site of the proposed nuclear infrastructure until it is appropriate to dispose it within the current and planned UK disposal facilities, including a geological disposal facility.
- 2.6.14 In accordance with paragraph 2.4.6 of this National Policy Statement, the Secretary of State should assume that regulatory regimes will operate effectively and consider residual impacts that remain once measures required by the Nuclear Regulators and the mitigation hierarchy have been applied. On

¹⁴ The National Policy Statement for Geological Disposal Infrastructure, first published in July 2019, is available on [gov.uk](https://www.gov.uk)

the matter of radioactive waste and spent nuclear fuel, the Secretary of State should solely consider the extent that any proposed interim storage facilities within the site of the proposed nuclear infrastructure meet relevant criteria set out in this National Policy Statement and other relevant National Policy Statements, and any residual impacts of any proposed interim storage facilities. Beyond the adequate provision of any interim fuel storage within the proposed infrastructure, the management of radioactive waste and spent nuclear fuel produced within the proposed infrastructure after it begins operating, including safe and secure transport and disposal, falls within the remit of the Nuclear Regulators, and outside of the scope of the Nationally Significant Infrastructure Project Development Consent regime.

Security of Site

- 2.6.15 Ensuring that the proposed nuclear infrastructure will be secure is vital. The Security Considerations section of EN-1 addresses security considerations in detail.
- 2.6.16 The applicant should engage with the Office for Nuclear Regulation as part of early engagement on securing a Nuclear Site Licence to understand what steps will be required to comply with relevant site security requirements.

2.7 Factors influencing site selection

- 2.7.1 The factors influencing site selection set out in this section will enable applicants to assess and exclude unsuitable locations, and identify sites which offer opportunities to minimise cost and complexity during construction, operation, decommissioning, the storage of radioactive waste and spent fuel, and applying the mitigation hierarchy to impacts.
- 2.7.2 Many criteria merit consideration during site assessment and again during the development of infrastructure design (as provided for in Section 2.8) and their approach to impacts (as provided for in Section 2.9). Within this National Policy Statement, these criteria are flooding, coastal and landform change, proximity to civil aircraft and spacecraft movements, biodiversity and geological conservation, landscape value, heritage significance and historic environment, the size of site, and the use of water and impact on water bodies.
- 2.7.3 The applicant may take other relevant factors into account when selecting the site of their proposed nuclear infrastructure and provide an assessment of those factors within their application for Development Consent for the Secretary of State to consider.
- 2.7.4 The choices which applicants make in selecting sites reflect their assessment of the risk that the Secretary of State, following the general points set out in the Assessment Principles – General Policies and Considerations section of EN-1, does not grant Development Consent in any given case.

Population Density

- 2.7.5 Since the start of the civil nuclear energy programme in the 1960s, the government has applied a policy of siting nuclear infrastructure in areas where the population density does not exceed certain thresholds. The current policy is given effect through the Semi-Urban Population Density Criterion.
- 2.7.6 The Semi-Urban Population Density Criterion seeks to avoid the siting of new nuclear reactors in areas where specified population density thresholds would be breached. The detailed provisions of this criterion, including population density thresholds, are set out in Land Use Planning and The Siting of Nuclear Installations, Office for Nuclear Regulation Guidance Document, NS-LUP-GD-001.¹⁵ Within this National Policy Statement, the Health and Safety Executive will determine whether a proposed site satisfies the Semi-Urban Population Density Criterion; the Office for Nuclear Regulation will no longer carry out this function.

¹⁵ <https://www.onr.org.uk/our-work/what-we-regulate/other-regulationslegislations/land-use-planning/> The methodology described in this document may be of use to applicants. The ONR formal review date for this document has been extended to June 2025 to allow time for the finalising of this National Policy Statement, EN-7.

- 2.7.7 The application of the Semi-Urban Population Density Criterion through the Nationally Significant Infrastructure Project Development Consent regime provides additional public protection over and above the Nuclear Site Licensing process by limiting the number of persons who may be at risk in the extremely unlikely event of radioactive materials passing the site boundary. This policy is a measure of prudence over and above the stringent 'Defence in Depth' approach which the Office for Nuclear Regulation requires nuclear site licensees to demonstrate¹⁶.
- 2.7.8 If a site adheres to the Semi-Urban Population Density criterion, this does not guarantee that the proposed development will be considered acceptable by the Office for Nuclear Regulation following its assessment of an application for a Nuclear Site Licence. This is because the Office for Nuclear Regulation's guidance to applicants on the Nuclear Site Licensing process sets out regulatory expectations concerning the siting of nuclear infrastructure which are separate to the Semi-Urban Population Density Criterion¹⁷.

Applicant Early Engagement:

- 2.7.9 The applicant must engage at an early planning stage with the Health and Safety Executive (npd@hse.gov.uk) to assess whether the proposed site is likely to satisfy the requirements of the Semi-Urban Population Density criterion.¹⁸
- 2.7.10 The applicant should engage with relevant statutory bodies at an early planning stage to understand the steps they may have to take to secure Development Consent, a Nuclear Site Licence, Environmental Permits and any other relevant regulatory authorisations for the proposed infrastructure development.

Applicant Assessment:

- 2.7.11 The applicant must secure confirmation in writing from the Health and Safety Executive that the proposed reactor location will satisfy the requirements of the Semi-Urban Population Density criterion for the purposes of obtaining a Development Consent Order. This requires that the applicant provide the Health and Safety Executive with a six figure Easting or Northing centre point where the reactor(s) would be located within the proposed infrastructure. This confirmation from the Health and Safety Executive enables the Examining Authority to conclude a competent regulatory body has reviewed the proposed

¹⁶ Further information on 'Defence in Depth' in a nuclear energy context can be found on the International Atomic Energy Agency website https://www-pub.iaea.org/MTCD/Publications/PDF/Pub1013e_web.pdf

¹⁷ Further information on the Office for Nuclear Regulation guidance on Licensing Nuclear Installations can be found on the Office for Nuclear Regulation website <https://www.onr.org.uk/media/30nh5c0f/licensing-nuclear-installations.pdf>

¹⁸ The semi urban demographic population criteria assessment is a commercial activity provided by the HSE. The service is non-statutory and is provided at a fee.

locations and confirmed their compliance with the requirements of the Semi-Urban Population Density Criterion.

- 2.7.12 It is not a requirement for the entire site footprint to adhere to the Semi-Urban Population Density Criterion. Only specific parts of the nuclear infrastructure that pose a radiological hazard must adhere to the criterion.
- 2.7.13 A confirmation by the Health and Safety Executive of the type referred to in paragraph 2.7.11 of this National Policy Statement may only be provided according to the relevant National Policy Statement(s) in effect when the confirmation was provided to the applicant. This confirmation from the Health and Safety Executive is only valid for proving compliance with the requirements of the Semi-Urban Demographic Criterion in an application for Development Consent considered by the Secretary of State in accordance with this National Policy Statement, if it is provided to the applicant after the date on which this National Policy Statement was designated.

Secretary of State Decision Making:

- 2.7.14 The Secretary of State must be satisfied that the proposed site satisfies the requirements of the Semi-Urban Population Density Criterion, taking into account, and placing substantial weight on, an assessment by the Health and Safety Executive and advice as appropriate from the Office for Nuclear Regulation.

Proximity to military activities

- 2.7.15 As noted in the Civil and Military Aviation and Defence Interests section of EN-1, it is essential that new energy infrastructure does not unacceptably impede or compromise defence interests or the safe and effective use of any defence assets or operations. Therefore, a proposal for nuclear infrastructure may only be granted Development Consent if it does not unacceptably impede or compromise defence interests or the safe and effective use of any defence assets or operations.
- 2.7.16 Nuclear infrastructure development must be refused on defence grounds if the proposed site is deemed to unacceptably impede or compromise defence interests or the safe and effective use of any defence assets or operations. This will include any nuclear infrastructure development proposed to be located within any of the following defence areas of interest:
- A. within certain Military Low Flying Tactical Training areas (currently Tactical Training Areas 7T, 20T, 14T and LFA13, and Air Weapon Ranges)
 - B. within the air space surrounding a Ministry of Defence aerodrome or an aerodrome used for defence activities contained within a designated Military

Air Traffic Zone (MATZ) (or an equivalent designation being used in the future)

- C. within the air space surrounding a Ministry of Defence aerodrome or an aerodrome used for defence activities contained within a designated Air Traffic Zone (ATZ) (or an equivalent designation being used in the future)
- D. within, or affects, the use of the areas being used for live firing or other military training activities
- E. within the explosives safeguarding zones surrounding Ministry of Defence explosives storage facilities

2.7.17 A proposed nuclear infrastructure development that would place a Ministry of Defence site within a notional 3 km radius of the nuclear infrastructure has a higher risk of being refused on defence grounds.¹⁹

2.7.18 Nuclear infrastructure development which is outside of a 3 km radius of a defence site and falls outside the defence areas of interest mentioned above, must still be assessed by the Ministry of Defence.

Applicant Early Engagement:

2.7.19 The applicant should engage with the Ministry of Defence as soon as the proposed site(s) perimeter and building(s) dimensions are known to ensure the proposed site does not unacceptably impede or compromise defence interests or the safe and effective use of any defence assets or operations.

2.7.20 The applicant should contact the Defence Infrastructure Organisation, which is part of the Ministry of Defence, to discuss the suitability of any proposed sites and development proposals.

DIO-Safeguarding-Statutory@mod.gov.uk

Safeguarding Team
Defence Infrastructure Organisation
St George's House
DMS Whittington
Lichfield
Staffordshire
WS14 9PY

¹⁹ The maximum Precautionary Action Zone defined for reactors < 1000 MW(th) in Table 8, page 76 of IAEA (International Atomic Energy Agency) Safety Standards - Arrangements for Preparedness for a Nuclear or Radiological Emergency <https://www-pub.iaea.org/MTCD/Publications/PDF/Pub1265web.pdf>

Applicant Assessment:

- 2.7.21 The applicant must assess whether the proposed nuclear infrastructure is likely to be acceptable by:
- A. identifying whether any Ministry of Defence sites, using publicly available information, fall within a 3 km radius of the proposed nuclear infrastructure
 - B. identify if the proposed nuclear infrastructure falls within any of the areas listed in paragraph 2.7.16 of this National Policy Statement
- 2.7.22 The applicant should engage with the Ministry of Defence on the location and design of the proposed nuclear infrastructure as it develops prior to the application for Development Consent, by providing the Ministry of Defence with the information it requests to assess the likelihood that the proposed nuclear infrastructure will be acceptable from the perspective of defence interests, or that the proposed infrastructure would be excluded on the grounds of national security, including any conditions that would likely be included as part of a Development Consent Order. The Ministry of Defence should provide the applicant with feedback on the likelihood that the proposed nuclear infrastructure will be acceptable from the perspective of defence interests, or that the proposed infrastructure would be excluded on the grounds of national security, including any conditions that would likely be included as part of a Development Consent Order.

Secretary of State Decision Making:

- 2.7.23 The Secretary of State must be satisfied that the location and nature of the proposed nuclear infrastructure, taking into account any conditions or restrictions that may be imposed by a Development Consent Order to protect defence interests, does not unacceptably impede or compromise defence interests or the safe and effective use of any defence assets or operations, taking into account, and placing substantial weight on, consultation with the Secretary of State for Defence.

Flooding

- 2.7.24 Flooding is important from two perspectives in relation to nuclear infrastructure. Firstly, the possible threats to the safety of nuclear infrastructure in an area exposed to flood risk. Secondly, the wider impacts of flood protection measures on areas surrounding the nuclear infrastructure.

Applicant Early Engagement:

- 2.7.25 The applicant should engage with relevant statutory bodies at an early planning stage to understand the steps they may have to take to secure Development Consent, a Nuclear Site Licence, Environmental Permits and any other relevant

regulatory authorisations for the proposed infrastructure development. On Flooding, this early engagement should include consultation with:

- A. Risk Management Authorities on any measures that may be required to secure Development Consent through the assessment and management of flood risk. Risk Management Authorities include the Environment Agency and/or Natural Resources Wales, the Marine Management Organisation, relevant Lead Local Flood Authorities, District and Borough Councils, Coast Protection Authorities, Water and Sewerage Companies, Internal Drainage Boards and Highways Authorities
- B. the Office for Nuclear Regulation as part of discussions concerning a Nuclear Site Licence application, on any site safety measures that will be required

Applicant Assessment:

- 2.7.26 The applicant must consider whether a potential site for development could be protected against flood risks during construction, operation, decommissioning, and the storage of radioactive waste and spent fuel through the project lifecycle, considering the potential effects of climate change and taking into account possible countermeasures and mitigating actions.
- 2.7.27 In addition to meeting the requirements set out in the Flood Risk section of EN-1, the assessment of potential sites must also consider the possible effects of the credible maximum scenario in the most recent flood projections.
- 2.7.28 The applicant must assess whether a potential site for development will require the application of the Sequential Test including climate change allowances. This must be completed before applying the Exception Test, if required.²⁰
- 2.7.29 The applicant should assess whether mitigating flood risk may make a site less suitable than one or more reasonable alternatives from an overall cost and delivery perspective.

Secretary of State Decision Making:

- 2.7.30 This is provided for in paragraph 2.9.11 in the Impacts section of this National Policy Statement.

Coastal and other Landform Change

- 2.7.31 Nuclear infrastructure, in particular large-scale nuclear infrastructure, has traditionally been constructed in coastal, estuarine, riverine and lacustrine locations. These locations can be at risk of erosion which has the potential to

²⁰ The Sequential and Exception tests are defined in the government's Flood risk and coastal change guidance, available on gov.uk, and their application to energy Nationally Significant Infrastructure Projects is set out in EN-1.

pose risks to nuclear infrastructure over their lifetime. It is therefore important to ensure that any risks to the nuclear infrastructure, from coastal processes and other landform change scenarios including riverine erosion and other risks due to being located near a lake, estuary or reservoir, are manageable and demonstrate how the impacts will be managed to minimise adverse impacts on other parts of the coast.

Applicant Early Engagement:

- 2.7.32 The applicant should engage with relevant statutory bodies at an early planning stage to understand the steps they may have to take to secure Development Consent, a Nuclear Site Licence, Environmental Permits and any other relevant regulatory authorisations for the proposed infrastructure development. On coastal and other landform change processes, this early engagement should include consultation with:
- A. the Environment Agency and/or Natural Resources Wales, and any relevant Local Authority and Coast Protection Authority, on any measures that may be required to secure Development Consent through the assessment and management of coastal, estuarine, riparian and lacustrine erosion
 - B. the Office for Nuclear Regulation as part of discussions concerning a Nuclear Site Licence application, on any site safety measures that will be required

Applicant Assessment:

- 2.7.33 Where the site for the proposed nuclear infrastructure is located on the coast or beside an estuary, lake, river or reservoir, the applicant must assess whether it could be protected against coastal erosion and other landform change scenarios, including the potential effects of climate change, considering the Credible Maximum Scenario, during construction, operation, decommissioning, and the storage of radioactive waste and spent fuel through the project lifecycle, taking into account possible countermeasures and mitigating actions.
- 2.7.34 The applicant should consider the relevant Marine Plans, Shoreline Management Plans and Coastal Change Management Areas (in Local Planning Authority local plans) and consider whether any activities would require a marine licence for the proposed location at an early stage if applicable.
- 2.7.35 The applicant should consider existing knowledge of the risk of coastal erosion at any site located on the coast, historical coastal events in the region and the latest Shoreline Management Plan policy and National Coastal Erosion Risk Map. Marine Plans, River Basin Management Plans and capital programmes for maintaining flood and coastal defences and Coastal Change Management Areas should also be considered.

- 2.7.36 The applicant must assess the risk of coastal erosion according to the Coastal Change section of EN-1.

Secretary of State Decision Making:

- 2.7.37 Where a site for proposed nuclear infrastructure is located on the coast or an estuary, a river, a lake or a reservoir, the Secretary of State must be satisfied that the proposed nuclear infrastructure will not increase coastal erosion risk elsewhere and could be protected against coastal erosion and other landform change scenarios, including the potential effects of climate change, during construction, operation, decommissioning, and the storage of radioactive waste and spent fuel, taking into account, and placing substantial weight on, advice from the Office for Nuclear Regulation, the Marine Management Organisation, Environment Agency and/or Natural Resources Wales.

Proximity to major hazard sites and major accident hazard pipelines

- 2.7.38 The consideration of major hazard sites and major accident hazard pipelines is crucial when developing nuclear infrastructure as these facilities or areas host the production, storage, processing, or transport of enough potentially hazardous material to cause significant harm to human health, safety, and the environment. Major accident hazard pipelines are pipelines that transport hazardous substances such as chemicals, oil or materials over long distances and have the potential to cause major accidents or incidents if they fail.
- 2.7.39 This criterion is relevant for the potential hazards from major hazard sites and major accident hazard pipelines that could affect the nuclear infrastructure, and for the risks and hazards that the nuclear infrastructure could pose to major hazard sites and major accident hazard pipelines.

Applicant Early Engagement:

- 2.7.40 The applicant should engage with relevant statutory bodies at an early planning stage to understand the steps they may have to take to secure Development Consent, a Nuclear Site Licence, and any other relevant regulatory authorisations for the proposed infrastructure development.
- 2.7.41 For proximity to major hazard sites and major accident hazard pipelines, this early engagement should include consultation with the Office for Nuclear Regulation regarding the Nuclear Site Licence application. The Office for Nuclear Regulation will provide advice to the Secretary of State on Hazardous Substance Consent, in consultation with the Health and Safety Executive (HSE) as appropriate. This engagement will assist the applicant with identifying any measures that will be required, potentially including evidence gathering by the applicant prior to their formal application for Development Consent and relevant regulatory licenses and/or consents.

Applicant Assessment:

- 2.7.42 The applicant must assess the likelihood and severity of potential accidents involving major hazard sites and pipelines and other hazardous substances and the risk posed to the proposed nuclear infrastructure and consider the potential risks that the proposed nuclear infrastructure could pose to existing major hazard sites or pipelines.
- 2.7.43 The applicant must consult the Office for Nuclear Regulation at the pre-application stage if the project is likely to need hazardous substances consent.
- 2.7.44 The applicant must consult the Safety and Hazardous Substances sections in EN-1, which sets out guidance on Hazardous Substances.

Secretary of State Decision Making:

- 2.7.45 The Secretary of State must be satisfied that the siting of the nuclear infrastructure near major hazard sites and pipelines has been properly assessed for potential risks taking into account, and placing substantial weight on, advice from the Office for Nuclear Regulation.
- 2.7.46 The Secretary of State must be satisfied that sufficient safety and security measures are in place to mitigate the risks associated with the proximity to these hazard sites and pipelines taking into account, and placing substantial weight on, advice from the Office for Nuclear Regulation.
- 2.7.47 The Secretary of State must be satisfied that the applicant has implemented comprehensive risk management strategies to ensure the protection of the nuclear infrastructure and surrounding areas taking into account, and placing substantial weight on, advice from the Office for Nuclear Regulation.
- 2.7.48 The Secretary of State must be satisfied that hazardous substances consent can be deemed to be granted alongside making an order granting Development Consent, taking into account, and placing substantial weight on, advice from the Office for Nuclear Regulation.

Proximity to civil aircraft and spacecraft movements

- 2.7.49 Proximity to civil aircraft and spacecraft movements is important for the development of nuclear infrastructure because the location of nuclear infrastructure can significantly affect the operation of aircraft and airports, while aircraft, spacecraft and airport activities can similarly pose safety and security risks to nuclear infrastructure.
- 2.7.50 Nuclear infrastructure in the UK receives protection from aviation activity through the creation of a “Restricted Area” at each individual site. The Restricted Areas have a radius of two nautical miles and extend vertically to

2000 feet above the surface. Only aviation activity specifically permitted by legislation is allowed within a Restricted Area.

Applicant Early Engagement:

- 2.7.51 The applicant should engage with relevant statutory bodies at an early planning stage to understand the steps they may have to take to secure Development Consent, a Nuclear Site Licence, Environmental Permits and any other relevant regulatory authorisations for the proposed infrastructure development.
- 2.7.52 On proximity to civil aircraft and spacecraft movements, this early engagement should include consultation with:
- A. the Office for Nuclear Regulation as part of discussions concerning a Nuclear Site Licence application, on any site safety measures that will be required
 - B. as noted in the Civil and Military Aviation and Defence Interests section of EN-1, the applicant should consult the Civil Aviation Authority and any aerodrome likely to be affected by the proposed development

Applicant Assessment:

- 2.7.53 The applicant must assess the proximity of aircraft and spacecraft movements to the proposed site in accordance with the policy set out in the Civil and Military Aviation and Defence Interests section of EN-1. For spacecraft and spaceports, the guidance in EN-1 also applies and the applicant should note that these may pose a greater risk than aircraft and aerodromes and there may be more stringent restrictions as a result.

Secretary of State Decision Making:

- 2.7.54 This is provided for in paragraphs 2.8.12 to 2.8.14 in the Technical Considerations section of this National Policy Statement.

Biodiversity and Geological Conservation

- 2.7.55 The critical national priority for low carbon infrastructure section of EN-1 sets out the urgent need for new low-carbon energy infrastructure, recognising that it is a critical national priority. It is important to ensure that any impacts from large-scale construction on biodiversity and the environment are avoided or mitigated as far as reasonably practicable in line with the mitigation hierarchy. Nuclear infrastructure requires land for construction, operation, decommissioning, and the storage of radioactive waste and spent fuel. In addition, depending on the project or site, nuclear infrastructure may have an impact on marine, lacustrine, riverine or reservoir environments. The impacts on biodiversity and the natural environment across the full lifetime of the site must be considered, and good

practice should be followed during construction, operation, decommissioning, and the storage of radioactive waste and spent fuel.

- 2.7.56 The Environmental and Biodiversity Net Gain section of EN-1 sets out guidance on environmental and biodiversity net gain. EN-1 requires energy Nationally Significant Infrastructure Project proposals to seek opportunities to contribute and enhance the natural environment by providing net gains for biodiversity and the wider environment where possible.
- 2.7.57 EN-1 sets out guidance for the protection of nationally and internationally designated sites of ecological and geological importance, including Habitats sites,²¹ Sites of Special Scientific Interest, Marine Conservation Zones and Protected Areas, regional and local sites, trees and woodland and irreplaceable habitats, including ancient woodland and ancient and veteran trees and wider protection and enhancement of habitats and species. There are a range of strategies which set out the UK Government's commitment to protecting biodiversity, including the National Pollinator Strategy and the UK Marine Strategy. The overarching Environmental Improvement Plan includes a legally-binding apex target to halt the decline in species abundance in England by 2030 and then increase abundance by 2042. EN-1 provides further guidance on how these sites are protected, including directing applicants to the National Planning Policy Framework (NPPF) and Natural Environment Planning Practice Guidance (PPG). The NPPF sets out planning policies for England in relation to planning for biodiversity and geological conservation and the Natural Environment PPG provides advice on the implementation of these policies²². The Biodiversity and Geological Conservation section of EN-1 also provides specific detail on how each type of designation impacts how that site should be protected. It highlights how applicants should consider improvements to, and impacts on, habitats and species in, around and beyond developments, for wider ecosystem services and natural capital benefits, beyond those under protection and identified as being of principal importance. This includes considering and aligning with Local Nature Recovery Strategies and the national goals and targets established under the Environment Act 2021.
- 2.7.58 This criterion replaces the "Nationally Designated Sites of Ecological Importance", and "Internationally Designated Sites of Ecological Importance" criteria used in EN-6. However, the lists of protected sites incorporated within those two criteria have been incorporated into the list of designated sites within EN-1, alongside further designated protected areas. The new combined criterion in this National Policy Statement provides the same level of protection for designated sites as the two criteria separately expressed in EN-6.

²¹ Those sites defined within the Habitats Regulations, which are available on legislation.gov.uk.

²² The government's Natural Environment guidance, first published in 2016, is available on gov.uk

Applicant Early Engagement:

- 2.7.59 The applicant should make early contact with the relevant statutory bodies, including the Environment Agency, Marine Management Organisation, Natural Resources Wales, Natural England, and the Department for Environment, Food and Rural Affairs where appropriate, for relevant siting advice and licensing and environmental permitting requirements.
- 2.7.60 The applicant should also make early contact with relevant statutory bodies in Scotland and Northern Ireland where there is the potential for transboundary effects on biodiversity and geological conservation.

Applicant assessment:

- 2.7.61 The applicant must assess any potential impact on biodiversity and any subsequent mitigations needed to meet biodiversity and environmental net gain requirements in accordance with the obligations set out in the Environmental and Biodiversity Net Gain section of EN-1.
- 2.7.62 The applicant must assess any potential impact on the conservation of biodiversity and geology as set out in the Biodiversity and Geological Conservation section of EN-1.
- 2.7.63 The applicant should assess whether the need to implement the mitigation hierarchy set out in EN-1 may make one or more reasonable alternative sites more suitable than the proposed site from an overall cost and delivery perspective.
- 2.7.64 The applicant should refer to the Environmental and Biodiversity Net Gain section and the Biodiversity and Geological Conservation section of EN-1 for further guidance.
- 2.7.65 The cooling system approach may affect the level of impact on a designated site of ecological importance and the level of mitigation required. The applicant should consider this at an early stage. The applicant should refer to the Water Quality and Resources nuclear impact in Section 2.9 of this National Policy Statement where this is set out in further detail.

Secretary of State Decision Making:

- 2.7.66 This is provided for in paragraphs 2.9.42 and 2.9.43 in the Impacts section of this National Policy Statement.

Areas of amenity, landscape value and heritage significance

- 2.7.67 Some nuclear infrastructure occupies large sites that could have a significant zone of visual influence, although nuclear infrastructure normally occupies a much smaller land area compared to other technologies for the same power

output.²³ Significant impacts require consideration as part of environmental assessment.

2.7.68 The Historic Environment section of EN-1 sets out the generic impacts of major energy infrastructure on the historic environment and remains relevant and important for applicants to consider when proposing a project.

2.7.69 The Landscape and Visual section of EN-1 sets out the generic landscape and visual impacts of major energy infrastructure.

Applicant Early Engagement:

2.7.70 Historic England and/or Cadw may be able to help the applicant to mitigate and/or avoid disruption to development by providing advice on the likelihood and likely scale of any archaeological discovery that may occur during construction. Unexpected and/or unplanned discoveries which could delay construction while the historical and/or heritage assets are recovered can be substantially mitigated if contingencies are in place and archaeological resource is kept accessible to the project to promptly deal with any discovery.

2.7.71 The applicant should engage with relevant statutory bodies at an early planning stage and as part of environmental assessment to understand the steps they may have to take to secure Development Consent. On areas of amenity, landscape value and heritage significance, this early engagement should include consultation with:

- A. Historic England and/or Cadw, and relevant Local Authorities, on any measures that will be required to secure Development Consent in light of the expectations set out in any relevant National Policy Statements concerning the historic environment and heritage
- B. Natural England, Natural Resources Wales, Marine Management Organisation, any relevant National Park Authorities and any relevant Local Authorities on any measures that may be required to secure Development Consent through the assessment and mitigation of any impact on landscape and visual amenity, particularly in Protected Landscapes, through Good Design and/or screening

Applicant Assessment:

2.7.72 The applicant should assess the landscape, seascape and visual impacts, and impacts on the historic environment, of the proposed nuclear infrastructure, including construction, operation, decommissioning, and the storage of

²³ Nøland, J.K., Auxepales, J., Rousset, A. et al. Spatial energy density of large-scale electricity generation from power sources worldwide. Sci Rep 12, 21280 (2022).

radioactive waste and spent fuel, in accordance with the Landscape and Visual section and Historic Environment section of EN-1.

Secretary of State Decision Making:

- 2.7.73 This is provided for in paragraphs 2.9.53 to 2.9.56 of the Impacts section of this National Policy Statement.

Size of site

- 2.7.74 The size of the site directly impacts the safety, security, and operational efficiency of the infrastructure. It is important to identify a sufficiently large site to accommodate the extensive infrastructure required. A well-sized site may also provide flexibility for future expansions or modifications.
- 2.7.75 The site of any nuclear infrastructure must include:
- A. the land on which energy would be generated and made available to transmission infrastructure
 - B. land for associated development to support the proposed nuclear infrastructure, including safe and secure construction, operation, decommissioning, and storage of radioactive waste and spent fuel
 - C. other land used to mitigate impacts, which may be conjoined to the land on which energy would be generated, or separate
- 2.7.76 Transmission Infrastructure is addressed separately in paragraphs 2.8.15 to 2.8.22 of this National Policy Statement.

Applicant Early Engagement:

- 2.7.77 The applicant should engage with relevant statutory bodies at an early planning stage to understand the steps they may have to take to secure Development Consent, a Nuclear Site Licence, Environmental Permits and any other relevant regulatory authorisations for the proposed infrastructure development. On the size of the site, this early engagement should include consultation with:
- A. the Environment Agency, Natural Resources Wales, Natural England, and the Marine Management Organisation where relevant, on any measures that will be required (potentially including evidence gathering by the applicant) to secure any relevant Environmental Permits and satisfy the requirements of any relevant Environmental Statement and Habitats Regulations Assessment
 - B. the Office for Nuclear Regulation as part of discussions concerning a Nuclear Site Licence application, on any site security and safety measures that will be required

Applicant Assessment:

- 2.7.78 The applicant must assess the size of site required based on what will be necessary for the efficient, effective, safe and secure construction, operation, decommissioning, and storage of radioactive waste and spent fuel relating to the proposed nuclear infrastructure, including associated development, and the mitigation of impacts.
- 2.7.79 The applicant should assess the potential to further develop the initial site to accommodate future upgrades, expansion or even changes in technology, and the land required to apply the mitigation hierarchy to the impacts of that further development.

Secretary of State Decision Making:

- 2.7.80 This is provided for in paragraphs 2.8.31 and 2.8.32 in the Technical Considerations section of this National Policy Statement.

Access to suitable sources of cooling

- 2.7.81 Reliable sources of cooling are essential for nuclear infrastructure to transfer heat from the reactor core. It is important that the cooling system is both sufficiently robust to ensure safe operation at all times, and that the effects of the cooling system on the wider area have been considered and addressed.
- 2.7.82 Broadly, the available types of cooling for nuclear infrastructure include:
- A. direct, or once-through, wet cooling systems generally appropriate in the United Kingdom for sites adjacent to the sea, a river or a large body of water
 - B. indirect, or recirculating, wet cooling systems such as natural draught towers (e.g. hyperboloid chimneys) or low-profile mechanical draught towers
 - C. dry cooling systems, such as dry coolers or condensers
 - D. hybrid cooling systems that combine recirculating wet and dry cooling elements
- 2.7.83 This National Policy Statement seeks to include nuclear technologies which may have diverse cooling needs and water requirements. Nuclear infrastructure using a direct wet cooling system is likely to require a coastal, lacustrine or estuarine location, and in some cases a river (if the proposed design is less than 1000 MW).²⁴ Infrastructure utilising a recirculating or hybrid system may be capable of deployment next to a large river or lake. Nuclear infrastructure

²⁴ See the Environment Agency's Evidence paper "Cooling Water Options for the Generation of Nuclear Power Stations in the UK" first published in 2010 (reference SC070015/SR3).

utilising a dry cooling system may be capable of deployment away from any substantial water body.

Applicant Early Engagement:

- 2.7.84 The applicant should engage with relevant statutory bodies at an early planning stage to understand the steps they may have to take to secure Development Consent, a Nuclear Site Licence, Environmental Permits and any other relevant regulatory authorisations for the proposed infrastructure development. On access to suitable sources of cooling, this early engagement should include consultation with:
- A. the Environment Agency, Natural Resources Wales, Natural England, and the Marine Management Organisation where relevant, on any measures that will be required (potentially including evidence gathering by the applicant) to secure any relevant Environmental Permits and satisfy the requirements of any relevant Environmental Statement and Habitats Regulations Assessment
 - B. relevant Water Companies on any implications for drinking water resources
 - C. the Office for Nuclear Regulation as part of discussions concerning a Nuclear Site Licence application, on any safety measures that will be required to guarantee sufficient cooling capacity

Applicant Assessment:

- 2.7.85 The applicant must set out the cooling system to be used and an assessment of any potential impacts, including social and environmental impacts, of the cooling system in line with the guidance in the Biodiversity and Geological Conservation section of EN-1 and the Coastal Change section of EN-1. While ensuring access to suitable sources of cooling is vital for operation of nuclear infrastructure, the applicant should account for the full life cycle of the nuclear infrastructure, including construction and decommissioning, in making this assessment.
- 2.7.86 The applicant should assess at an early stage whether the need to implement the mitigation hierarchy set out in EN-1 may make a proposed cooling solution less suitable than an alternative from an overall cost and delivery perspective. The applicant's assessment should consider the characteristics of cooling water for the proposed nuclear infrastructure and the implications for marine, lacustrine, riparian and estuarine environments and their respective users and activities.

Secretary of State Decision Making:

- 2.7.87 The Secretary of State must be satisfied that the applicant's proposed cooling system is appropriate for the proposed nuclear infrastructure, taking into account, and placing substantial weight on, advice from the Office for Nuclear Regulation, Marine Management Organisation and the Environment Agency and/or Natural Resources Wales.
- 2.7.88 Where cooling water abstraction infrastructure is proposed to be located in an area where an abstraction permission is not required from the relevant Nuclear Regulators, the imposition of any requirements to mitigate any impact of that abstraction infrastructure, and the acceptance or not of any residual impacts, are a matter for the Secretary of State to determine when considering whether to grant Development Consent and what conditions to apply to that consent. The Examining Authority should place significant weight on advice provided by the relevant Nuclear Regulators, and Statutory Consultees including Natural England, Natural Resources Wales and the Marine Management Organisation, concerning the appropriate measures to mitigate the environmental and conservation impacts and the nature and scale of any residual impact.

2.8 Technical Considerations

- 2.8.1 Technical Considerations criteria concern issues relating to the feasibility of the site for nuclear infrastructure deployment that require further consideration during the design of the proposed infrastructure, once the site has been assessed and selected.

Proximity to civil aircraft and spacecraft movements

- 2.8.2 Civil aircraft and spacecraft movements, and the infrastructure which supports it, including aviation technical sites and meteorological radars, can be impacted by nuclear infrastructure, and aircraft and spacecraft can pose a risk to nuclear infrastructure.
- 2.8.3 In protecting nuclear infrastructure, there are Restricted Areas permitted by the Regulations according to Statutory Instrument 2007 No 1929 (The Air Navigation (Restriction of Flying) (Nuclear Installations) Regulations 2007). These Restricted Areas generally have a radius of two nautical miles and extend up to 2,000 feet above the surface.

Applicant Early Engagement:

- 2.8.4 The applicant should seek advice from the Office for Nuclear Regulation as part of the Nuclear Site Licencing process to ensure that the proposed arrangements sufficiently safeguard the safety of the site. The Office for Nuclear Regulation will assess the proximity to aerodromes, aviation activity, spaceports and spacecraft in the site selection and Development Consent order process.
- 2.8.5 The Civil Aviation Authority is not normally involved in the safeguarding process for individual cases. Civil Aviation Authority consider the aerodrome operator of certificated and licensed sites to hold expert opinion on safeguarding their site; it therefore follows that they are best placed to know the impact of any development on its operation. However, the Civil Aviation Authority is a statutory consultee on certain proposed wind turbine developments and may be consulted as a non-statutory consultee on all other planning proposals, but their response will be limited to the safety impact of the proposal on the aerodrome. The Civil Aviation Authority will not form a view as to whether the development should be permitted or not.

Applicant Assessment:

- 2.8.6 The applicant must assess the likelihood and severity of aircraft and/or spacecraft incidents that could pose a risk to the safety and security of the proposed nuclear infrastructure.

- 2.8.7 The applicant must assess the measures necessary to prevent aircraft and/or spacecraft incidents posing a risk to the safety and security of the proposed nuclear infrastructure.
- 2.8.8 The applicant must assess the measures necessary to mitigate the impact of the proposed nuclear infrastructure on civil aircraft and spacecraft movements, and the infrastructure which supports it, including aviation technical sites, meteorological radars and the National Severe Weather Warning Service.

Project Design:

- 2.8.9 The applicant must include appropriate measures within their application for Development Consent to mitigate the impact of the proposed nuclear infrastructure on civil aircraft and spacecraft movements, and the infrastructure which supports it, including aviation technical sites and meteorological radars.
- 2.8.10 The applicant must include appropriate measures within their application for Development Consent to prevent aircraft and/or spacecraft incidents posing a risk to the safety and security of the proposed nuclear infrastructure.
- 2.8.11 If any relevant changes are made to proposals during the pre-application and determination period the applicant must ensure that the relevant aviation, meteorological and defence consultees are informed as soon as reasonably possible.

Secretary of State Decision Making:

- 2.8.12 The Secretary of State must be satisfied that the proposal has been designed, where possible, to minimise adverse impacts on the operation and safety of aerodromes and spaceports and that realistically achievable mitigation is carried out. It is incumbent on operators of aerodromes and spaceports to regularly review the possibility of agreeing to make reasonable changes to operational procedures.
- 2.8.13 The Secretary of State must be satisfied that they have the necessary information regarding the operational procedures along with any demonstrable risks or harm of such changes, taking into account the cases put forward by all parties.
- 2.8.14 Further detail on Secretary of State decision making is set out in the Civil and Military Aviation and Defence Interests section of EN-1.

Access to transmission infrastructure

- 2.8.15 Access to transmission networks is crucial when developing nuclear infrastructure, as strong and reliable transmission infrastructure is essential for efficiently transmitting the large amounts of energy generated by the nuclear

infrastructure to end-users, maintaining transmission infrastructure stability, and avoiding disruptions in energy supply.

Applicant Early Engagement:

- 2.8.16 The applicant should liaise with relevant transmission infrastructure bodies, such as the National Energy System Operator, or the relevant regional distribution network operators (DNO) or telecommunication service outlets (TSO) to secure the required transmission infrastructure.

Applicant Assessment:

- 2.8.17 The applicant should refer to EN-5 and the Network Connection section of EN-1 which sets out the generic considerations for the impacts of network connections.
- 2.8.18 On 22 October 2024, the UK, Scottish and Welsh Governments, jointly commissioned the National Energy System Operator (NESO) to develop a Strategic Spatial Energy Plan (SSEP): the first ever spatial energy plan for Great Britain, to support a more actively planned approach to energy infrastructure across Great Britain, across both land and sea. It will assess and identify the optimal locations, quantities and types of energy infrastructure required for generation and storage, as well as relevant hydrogen assets, across a range of plausible futures, to meet our future energy demand with the clean, affordable and secure supply that we need.
- 2.8.19 The more strategic approach to spatial planning is intended to make clearer the overall geographic requirements for the energy system and increase efficiency in the system, resulting in cheaper transmission costs for generators and consumers of electricity.

Project Design:

- 2.8.20 The applicant must ensure that the necessary transmission infrastructure for the proposed nuclear infrastructure is either in place or will be established, by either including necessary transmission infrastructure within the application for Development Consent for nuclear infrastructure, or as part of a separate but explicitly connected Development Consent application containing the necessary transmission infrastructure.

Secretary of State Decision Making:

- 2.8.21 The Secretary of State must be satisfied that the applicant has considered and met the expectations for network connections contained within EN-5.
- 2.8.22 The Secretary of State must be satisfied that appropriate transmission infrastructure arrangements are or will be established for the proposed nuclear infrastructure.

Size of site

- 2.8.23 The size of the site directly impacts the safety, security, and operational efficiency of the infrastructure. It is important to identify a sufficiently large site to accommodate the extensive infrastructure required. A well-sized site provides flexibility for future expansions or modifications, ensuring the long-term viability of the nuclear development.
- 2.8.24 The site of any nuclear infrastructure must include:
- A. the terrestrial or marine area on which energy would be generated and made available to transmission infrastructure
 - B. terrestrial or marine area for associated development to support the safe and secure construction, operation, decommissioning, and storage of radioactive waste and spent fuel relating to the proposed nuclear infrastructure
 - C. other parcels of terrestrial or marine area used to mitigate impacts, which may be conjoined to the land on which energy would be generated, or separate
- 2.8.25 Transmission Infrastructure and the land hosting it is addressed separately in paragraphs 2.8.15 to 2.8.22 of this National Policy Statement.

Applicant Early Engagement:

- 2.8.26 The applicant should engage with relevant statutory bodies at an early planning stage to understand the steps they may have to take to secure Development Consent, a Nuclear Site Licence, Environmental Permits and any other relevant regulatory authorisations for the proposed infrastructure development. On the size of the site, this early engagement should include consultation with:
- A. the Planning Inspectorate on the process and requirements of the Nationally Significant Infrastructure Project Development Consent regime, in particular the scope for Development Consent Orders providing for development in phases as set out in paragraphs 2.6.1 to 2.6.7 of this National Policy Statement
 - B. the Environment Agency, Natural Resources Wales, Natural England, and the Marine Management Organisation where relevant, on any measures that will be required (potentially including evidence gathering by the applicant) to secure any relevant Environmental Permits and satisfy the requirements of any relevant Environmental Statement and Habitats Regulations Assessment

- C. the Office for Nuclear Regulation as part of discussions concerning a Nuclear Site Licence application, on any site security and safety measures that will be required

Applicant Assessment:

- 2.8.27 The applicant must assess the size of site required to accommodate the safe and secure construction, operation, decommissioning, and storage of radioactive waste and spent fuel relating to the proposed nuclear infrastructure, and any terrestrial or marine area that may be required to mitigate and/or compensate for impacts.

Project Design:

- 2.8.28 The applicant must include within their application for Development Consent provision to secure sufficient terrestrial and/or marine area to accommodate the safe and secure construction, operation, decommissioning, and storage of radioactive waste and spent fuel in relation to the proposed nuclear infrastructure.
- 2.8.29 The applicant must ensure their proposals would secure adequate land to exercise effective control over access and activities on and around the proposed nuclear infrastructure.
- 2.8.30 The applicant must set out how and when the terrestrial and/or marine area composing the proposed site will be used, reflecting any development in phases as set out in paragraphs 2.6.1 to 2.6.7 of this National Policy Statement where relevant, and why this use is necessary.

Secretary of State Decision Making:

- 2.8.31 The Secretary of State must be satisfied the proposed site can accommodate essential infrastructure to maintain appropriate safety and security zones, taking into account, and placing substantial weight on, advice from the Office for Nuclear Regulation.
- 2.8.32 The Secretary of State must be satisfied the proposed site would accommodate the safe and secure construction, operation, decommissioning, and radioactive waste and spent fuel storage, and the implementation of the mitigation hierarchy on impacts, relating to the proposed nuclear infrastructure, including any development in phases as expanded on in paragraphs 2.6.1 to 2.6.7 of this National Policy Statement where relevant.

Seismic hazards and ground instability

- 2.8.33 This Technical Consideration covers seismic hazards including seismic risk and capable faulting (or the risk of impacts on the surface of a seismic fault), as well as other non-seismic ground conditions and the proximity to mining, drilling and other underground operations. All of these could have an impact on nuclear infrastructure, and it is therefore important for an applicant to demonstrate how their project will mitigate or avoid potential impacts.

Applicant Early Engagement:

- 2.8.34 The applicant should make early contact with the Office for Nuclear Regulation as part of the Nuclear Site Licencing process on site suitability and any safety measures that will be required. The Office for Nuclear Regulation provides guidance on the assessment of seismic hazards which the applicant may find useful in meeting the requirements of this Section.²⁵

Applicant Assessment:

- 2.8.35 The applicant must assess the likelihood and severity of all risks posed to their project by seismic hazards and ground instability, including the potential impacts of climate change.

Project Design:

- 2.8.36 The applicant must include within their application for Development Consent measures to fully mitigate any risks posed by seismic hazards and ground instability to ensure significant harm to the project is avoided during the construction, operation, decommissioning, and storage of radioactive waste and spent fuel relating to the proposed nuclear infrastructure, including the potential impacts of climate change should climate change predictions prove correct and show that these are necessary.

Secretary of State Decision Making:

- 2.8.37 The Secretary of State must be satisfied that the applicant has assessed the risks posed by seismic hazards and ground instability, and that the application includes appropriate mitigations for any significant risks posed to the project during the full lifetime of the project, taking into account, and placing substantial weight on, advice from the Office for Nuclear Regulation.

Emergency planning

- 2.8.38 This technical consideration covers planning and siting considerations related to the need for planning and preparedness in relation to the unlikely event of an

²⁵ [For further information please see the Office for Nuclear Regulation website for the latest material on Seismic Hazards](#)

incident posing a risk within or beyond the site boundary of the proposed nuclear infrastructure.

- 2.8.39 The Radiation Emergency Preparedness and Public Information Regulations 2019 contain guidance on emergency planning to which applicants may refer.²⁶
- 2.8.40 The applicant must include appropriate assessments, mitigations and assurances in their application for Development Consent. Emergency planning will be considered at the time of the Development Consent application by the Office for Nuclear Regulation, and the Office for Nuclear Regulation's assessment will inform the Secretary of State in their decision making.
- 2.8.41 The applicant should engage with the Office for Nuclear Regulation as part of discussions concerning Emergency Planning for a Nuclear Site Licence application, on any measures that will be required to secure a Nuclear Site Licence and in so doing satisfy the site suitability criteria which the Office for Nuclear Regulation will advise the Examining Authority on as part of their review of an application for Development Consent.

Meteorological conditions

- 2.8.42 This Technical Consideration covers planning and siting considerations related to weather conditions, including preparedness for any potential impacts on nuclear infrastructure of extreme weather events including due to climate change.

Applicant Early Engagement:

- 2.8.43 The applicant should engage with the Office for Nuclear Regulation as part of discussions concerning meteorological conditions for a Nuclear Site Licence application, on any measures that will be required to secure a Nuclear Site Licence and in so doing satisfy the site suitability criteria which the Office for Nuclear Regulation will advise the Examining Authority on as part of their review of an application for Development Consent.

Applicant Assessment:

- 2.8.44 The applicant must assess the likelihood and severity of all risks posed to their project by meteorological conditions and extreme weather events, including those potentially resulting from climate change.
- 2.8.45 The applicant should submit their proposals for ensuring the safety of the proposed nuclear infrastructure against the potential impacts of extreme weather events to the Office for Nuclear Regulation. The Office for Nuclear

²⁶ For further information [please see the Office for Nuclear Regulation website for the latest advice on Emergency Arrangements, including specific advice on the Office for Nuclear Regulation's work on Emergency Preparedness and Response](#)

Regulation provides guidance on meteorological hazards which applicants may refer to.²⁷

Project Design:

- 2.8.46 The applicant must include within their application for Development Consent measures to ensure their proposed infrastructure will be resilient to the potential impacts of meteorological conditions during construction, operation, decommissioning, and storage of radioactive waste and spent fuel relating to the proposed nuclear infrastructure, taking into account the potential impacts of climate change.

Secretary of State Decision Making:

- 2.8.47 The Secretary of State must be satisfied that the proposed nuclear infrastructure will be properly protected from the risks of extreme weather events during its construction, operation, decommissioning, and the storage of radioactive waste and spent fuel relating to the infrastructure, taking into account, and placing substantial weight on, advice from the Office for Nuclear Regulation.

²⁷ For further information, please see the Office for Nuclear Regulation's website for the latest version of its material on Meteorological Hazards

2.9 Impacts

- 2.9.1 Impact criteria concern issues that require further consideration once the site has been assessed and selected, the potential impacts have been identified and the mitigation hierarchy must be applied to those impacts.

Flood Risk

- 2.9.2 Nuclear infrastructure may occupy a large site and need to consider flood risk both at a site level and across the surrounding area to ensure the risk of flooding is mitigated and/or adapted to. The Flood Risk section of EN-1 sets out the generic Flood Risk requirements of major energy infrastructure and the assessments that must be undertaken.
- 2.9.3 The applicant should consider further guidance detailed in Principles for Flood and Coastal Erosion Risk Management – July 2022²⁸ from the Environment Agency and the Office for Nuclear Regulation.

Applicant Early Engagement:

- 2.9.4 The applicant should engage with relevant statutory bodies at an early planning stage and as part of environmental assessment to understand the steps they may have to take to secure Development Consent and a Nuclear Site Licence. On flood risk, this early engagement should include consultation with:
- A. Risk Management Authorities on any measures that may be required to secure Development Consent through the assessment and management of flood risk. Risk Management Authorities include the Environment Agency, the Marine Management Organisation, relevant Lead Local Flood Authorities, District and Borough Councils, Coast Protection Authorities, Water and Sewerage Companies, Internal Drainage Boards and Highways Authorities
 - B. the Office for Nuclear Regulation as part of discussions concerning a Nuclear Site Licence application, on any site safety measures that will be required

Applicant Assessment:

- 2.9.5 The applicant must assess all types of flood risk for the proposed nuclear infrastructure, including by identifying the potential effects of the credible maximum scenario in the most recent flood projections relevant to the site of the

²⁸ The Office for Nuclear Regulation and the Environment Agency have issued a joint Principles for Flood and Coastal Erosion Risk Management document. Applicants should refer to the latest version of this.

proposed infrastructure, and meet the requirements set out in the Flood Risk section of EN-1.

- 2.9.6 If the applicant proposes a managed adaptive approach, the applicant must demonstrate that there is a need for a managed adaptive approach including how this would be deliverable, how it will be funded, when and how it would be triggered and how the proposed infrastructure will be secured in the future, if climate change predictions prove correct.
- 2.9.7 The applicant must submit a Flood Risk Assessment, including setting out how the Sequential Test and Exception Test has been applied and met where required.
- 2.9.8 If applying the Sequential Test to the potential site location is required, the applicant should follow the guidance available in the Flood Risk section of EN-1, and should consider constructability, operability and other issues when assessing reasonable alternative sites in relation to flood risk. These could include, but are not limited to: proximity or connectivity to transmission infrastructure and/or the end user for the energy produced, site access for large items required for construction or operation, any need for the infrastructure to be located in a specific region or locality, and the Factors Influencing Site Selection set out in this National Policy Statement, including access to suitable sources of cooling. This list is not exhaustive and there may be other issues that determine whether another site on land at a lower risk of flooding is not a reasonable alternative.

Mitigation:

- 2.9.9 The applicant must commit, as part of their application for Development Consent, to apply suitable flood risk mitigation measures as set out in the Flood Risk section in EN-1. These measures must consider the potential effects of the credible maximum scenario in the most recent flood projections.
- 2.9.10 The applicant must demonstrate that future adaptations could be achieved at the site after the nuclear infrastructure is built and for the entirety of the lifetime of the site, during construction, operation, decommissioning, and the storage of radioactive waste and spent fuel.

Secretary of State Decision Making:

- 2.9.11 The Secretary of State must be satisfied that, where relevant, the measures set out in the Flood Risk section of EN-1 have been met in relation to flood risk which apply to any nuclear infrastructure development. This will include a Flood Risk Assessment, including setting out how the Sequential Test and the Exception Test have been applied and met where required.

Water quality and resources

- 2.9.12 The Water Quality and Resources section of EN-1 sets out the generic water quality and resources requirements of major energy infrastructure and the assessments that must be undertaken where a project is likely to have effects on water quality or resources.
- 2.9.13 Nuclear infrastructure can require a significant quantity of water. One significant use of water is cooling where a wet cooling system is used. There are a range of cooling system types available that can include:²⁹
- A. direct, or once-through, wet cooling systems generally appropriate in the United Kingdom for sites adjacent to the sea, a river or a large body of water
 - B. indirect, or recirculating, wet cooling systems such as natural draught towers (e.g. hyperboloid chimneys) or low-profile mechanical draught towers
 - C. dry cooling systems, such as dry coolers or condensers
 - D. hybrid cooling systems that combine recirculating wet and dry cooling elements
- 2.9.14 Nuclear infrastructure is likely to have impacts on water quality and resources, and the significance of these impacts is likely to vary depending on the type of cooling system used. Some potential impacts include:
- A. discharging water at a higher temperature than the receiving water, affecting the biodiversity of aquatic flora and fauna
 - B. use of water which may reduce the flow of water courses, affecting the rate at which sediment is deposited, conditions for aquatic flora and potentially affecting migratory fish species (for example salmon)
 - C. fish impingement and/or entrainment – i.e. being taken into the cooling system during abstraction
 - D. chemical anti-fouling treatment of water for use in cooling systems may have adverse impacts on aquatic biodiversity
 - E. potential impacts on groundwater availability and quality

Applicant Early Engagement:

- 2.9.15 The applicant should engage with relevant statutory bodies at an early planning stage to understand the steps they may have to take to secure Development

²⁹ The Environment Agency report “Cooling Water Options for the New Generation of Nuclear Power Stations in the UK” defines cooling systems in further detail.

Consent and Environmental Permits, and with relevant Water Companies on any potential impact on drinking water resources. Early engagement on Development Consent and Environmental Permits should include consultation with the Environment Agency, Natural Resources Wales, Natural England, and the Marine Management Organisation where relevant, on any measures that will be required (potentially including evidence gathering by the applicant) to secure any relevant Environmental Permits and satisfy the requirements of any relevant Environmental Statement and Habitats Regulations Assessment.

- 2.9.16 The applicant should also make early contact with relevant statutory bodies in Scotland and Northern Ireland where there is the potential for transboundary effects on water quality and resources.

Applicant Assessment:

- 2.9.17 The applicant must assess the potential impacts on water resources and quality set out in the Water Quality and Resources section of EN-1, including the use of, and impact on, water bodies and resources during the construction, operation, decommissioning, and the storage of radioactive waste and spent fuel relating to the proposed nuclear infrastructure.
- 2.9.18 The applicant's assessment should set out the characteristics of the cooling system proposed, and the specific implications of the proposal on marine, estuarine, riverine, groundwater, lake and/or reservoir environments.

Mitigation:

- 2.9.19 The applicant must include within their application for Development Consent mitigation measures as set out in the Water Quality and Resources section of EN-1, including designing any wet cooling system to minimise adverse impacts, such as through careful locating of water abstraction and discharge points (where applicable).
- 2.9.20 The applicant should include within their application for Development Consent specific measures to minimise impacts to fish and aquatic biota by impingement and/or entrainment or by excessive heat or biocidal chemicals from discharges to receiving waters, where a wet cooling system is used.
- 2.9.21 The Environmental Impact Assessment (EIA) is the process for assessing environmental impacts and any mitigation measures. The contamination of water resources and other environmental features, such as soils, can be assessed by the developer as part of undertaking this process, and managed through the possible implementation of Environmental Management Plans.

Secretary of State Decision Making:

- 2.9.22 In assessing the impact on water quality and resources associated with the proposed nuclear infrastructure, the Secretary of State must act in accordance with the Water Quality and Resources section of EN-1.

Coastal and other Landform Change

- 2.9.23 Nuclear infrastructure development can impact on the natural functioning of water bodies in coastal, estuarine, riverine and lacustrine locations, with consequential impacts on erosion and other forms of landform change. These processes can impact flood risk, biodiversity, water quality and land availability.
- 2.9.24 The Coastal Change section of EN-1 sets out the generic Coastal Change requirements of major energy infrastructure and the assessments that must be undertaken.

Applicant Early Engagement:

- 2.9.25 The applicant should engage with relevant statutory bodies at an early planning stage to understand the steps they may have to take to secure Development Consent. On coastal and other landform change, this early engagement should include the Environment Agency and/or Natural Resources Wales, the Marine Management Organisation, and any relevant Local Authority, on any measures that may be required to secure Development Consent through the assessment and management of coastal, estuarine, riparian and lacustrine erosion.

Applicant Assessment:

- 2.9.26 The applicant must assess the impact of the construction, operation, decommissioning, and the storage of radioactive waste and spent fuel relating to the proposed nuclear infrastructure on coastal change and other landform change scenarios including riverine and lacustrine erosion and other risks due to being located near a lake, estuary or reservoir in accordance with the Coastal Change section of EN-1, considering the Credible Maximum Scenario in relation to climate change.

Mitigation:

- 2.9.27 The applicant must include within their application for Development Consent any measures to mitigate the effects of, and on, coastal change and other landform change scenarios including riverine, lacustrine and estuarine erosion of the proposed nuclear infrastructure, including during the construction, operation, decommissioning, and the storage of radioactive waste and spent fuel.
- 2.9.28 The policy on mitigation set out in the Coastal Change section of EN-1 must be applied and the effects of climate change should be considered, including

during the construction, operation, decommissioning, and the storage of radioactive waste and spent fuel.

Secretary of State Decision Making:

- 2.9.29 The Secretary of State must be satisfied that the expectations outlined in the Coastal Change section of EN-1 have been met.
- 2.9.30 The Secretary of State must be satisfied that where proposals may impact estuarine, riverine and lacustrine erosion, the same expectations set out in the Coastal Change section of EN-1 for Coastal Erosion, will be met by the proposed nuclear infrastructure in relation to estuarine, riverine and lacustrine erosion where relevant.

Biodiversity and geological impacts

- 2.9.31 The Biodiversity and Geological Conservation section of EN-1 sets out the guidance on biodiversity and geological conservation considerations, and The Air Quality and Emissions section of EN-1 sets out the guidance on air quality and emissions, which have impacts on biodiversity. Further related guidance on environmental and biodiversity net gain is set out in the Environmental and Biodiversity Net Gain section of EN-1.
- 2.9.32 Biodiversity refers to the variety of life in all forms, including all species of plants, animals and fungi, their genetic diversity and the ecosystems of which they are part. Geological conservation covers sites designated for their geology and/or their geological importance.
- 2.9.33 As set out in EN-1, biodiversity net gain and environmental net gain require applicants to go beyond the mitigation hierarchy and consider whether there are opportunities for enhancement of the environment. This includes using the latest version of the biodiversity metric to calculate a biodiversity baseline and present biodiversity net gain outcomes as part of their application.

Applicant Early Engagement:

- 2.9.34 The applicant should engage with relevant statutory bodies at an early planning stage to understand the steps they may have to take to secure Development Consent and Environmental Permits. On biodiversity and geological impacts, this early engagement should include consultation with the Environment Agency, Natural Resources Wales, Natural England, and the Marine Management Organisation where relevant, on any measures that will be required (potentially including evidence gathering by the applicant) to secure any relevant Environmental Permits and satisfy the requirements of any relevant Environmental Statement and Habitats Regulations Assessment.

- 2.9.35 The applicant should also make early contact with relevant statutory bodies in Scotland and Northern Ireland where there is the potential for transboundary effects on biodiversity and geological conservation.

Applicant Assessment:

- 2.9.36 The applicant must follow the requirements for assessing biodiversity and environmental net gain set out in EN-1.
- 2.9.37 Applicants must take into account the full life cycle of the nuclear infrastructure, including construction, operation, decommissioning, and the storage of radioactive waste and spent fuel, as well as any temporary construction needed to support these phases when assessing the requirements of the mitigation hierarchy in relation to the proposed nuclear infrastructure.
- 2.9.38 At the project level, baseline studies on nationally and internationally important habitats and species that may be affected because of the development should be undertaken by the applicant to inform the assessment of the cumulative and in-combination ecological effects. The applicant must establish which relevant plans and projects should be included within the cumulative assessment. In addition to informing the cumulative assessment, baseline data on the proposed site and surrounding area is also required for other environmental assessments, such as a Habitats Regulations Assessment where applicable.

Mitigation:

- 2.9.39 The applicant must implement the mitigation hierarchy as set out in EN-1 to protect the environment and biodiversity, including relevant measures to mitigate the biodiversity impact of air quality and emissions as set out in the Air Quality and Emissions section of EN-1.
- 2.9.40 In addition to the options for addressing the mitigation hierarchy set out in the Biodiversity and Geological Conservation section EN-1, there are further possible mitigation or avoidance options including variations to building layout to avoid ecologically sensitive areas and on-site measures to protect habitats and species and to avoid or minimise pollution and the disturbance of wildlife.
- 2.9.41 Applicants should refer to the Water Quality and Resources nuclear impact earlier in this Section for further details on cooling systems, impacts and mitigations.

Secretary of State Decision Making:

- 2.9.42 The Secretary of State must be satisfied that the proposed development will appropriately manage impacts on biodiversity and geology, in accordance with the Biodiversity and Geological Conservation section of EN-1.

- 2.9.43 The Secretary of State must consider duties under other legislation including duties under the Environment Act 2021 in relation to environmental targets and have regard to the policies set out in the government's Environmental Improvement Plan.

Landscape, heritage significance and visual impacts

- 2.9.44 The Landscape and Visual section of EN-1 sets out the generic landscape and visual impacts of major energy infrastructure. The Historic Environment section sets out the generic historic environment impacts of major energy infrastructure.
- 2.9.45 Nuclear infrastructure may present the following landscape issues: the scale of some facilities means that the scope for reducing visual intrusion can be limited; and because of the long operating life of nuclear infrastructure, there is the potential for long-term effects on visual amenity. Facilities are generally located in less populated areas. Landscape value (for example in the form of statutory designation) and associated visual amenity is generally higher in such locations. Nuclear infrastructure development in these areas may affect the landscape character and associated visual amenity.
- 2.9.46 As set out in the Landscape and Visual section of EN-1, heat generating infrastructure, including nuclear infrastructure, can have visual impacts due to cooling towers and exhaust stacks, which can emit highly visible steam plumes. As set out in the Landscape and Visual section of EN-1, these visual impacts are reduced if a direct cooling, air cooling or modern hybrid cooling system (for example, mechanical draft cooling towers) are used instead of natural draft cooling towers.
- 2.9.47 There may be opportunity to mitigate the landscape and visual impacts by careful consideration of Good Design, site layout, landscaping and making use of the existing land profile.

Applicant Early Engagement:

- 2.9.48 The applicant should engage with relevant statutory bodies at an early planning stage to understand the steps they may have to take to secure Development Consent. On landscape and visual impacts, this early engagement should include consultation with:
- A. The Planning Inspectorate and relevant local authorities on how Good Design principles may enable the nuclear infrastructure to mitigate any negative visual impacts and potentially make a positive contribution to the character of its host location and community
- 2.9.49 Natural England, Natural Resources Wales, Marine Management Organisation, any relevant National Park Authorities (including the Broads Authority), National Landscape organisations and any relevant Local Authorities (particularly those

hosting National Landscapes) on any measures that may be required to secure Development Consent through the assessment and mitigation of any impact on landscape and visual amenity, particularly in Protected Landscapes (National Parks and National Landscapes), through Good Design and/or screening, and

- A. Historic England and/or Cadw, and any relevant Local Authorities on any measures that will be required to secure Development Consent in light of the expectations set out in any relevant National Policy Statement concerning the historic environment and heritage.

Applicant Assessment:

- 2.9.50 The applicant should assess the landscape and visual impact of the proposed nuclear infrastructure, including the impact on the seascape if applicable, in accordance with the Landscape and Visual section of EN-1.

Mitigation:

- 2.9.51 The applicant should reduce the landscape impacts and associated visual intrusion of the project as far as reasonably practicable, in accordance with the Landscape and Visual section of EN-1. However, impacts cannot be expected to be eliminated completely.
- 2.9.52 The Landscape and Visual section of EN-1 states there may be exceptional circumstances where the mitigation of visual and/or landscape impacts that has a very significant benefit warrants a small reduction in function e.g. electricity generation output. This may be the case where a small fraction of the energy output of nuclear infrastructure is used to operate powered cooling systems with a substantially reduced visual profile, such as mechanical draft wet cooling, air cooling or mechanical draft hybrid wet and dry cooling.
- 2.9.53 The applicant must apply the principles of Good Design set out in Criteria for good design for Energy Infrastructure section of EN-1 to mitigate negative landscape and visual impacts and positively contribute to the landscape character of the host location and communities, where reasonably practicable to do so.

Secretary of State Decision Making:

- 2.9.54 The Secretary of State must act according to the Landscape and Visual section of EN-1 when assessing the landscape and visual effects resulting from the proposed development and must be satisfied that the development has been designed to mitigate the landscape and visual impacts of the development as much as reasonably practicable, including according to the Landscape and Visual section of EN-1.

- 2.9.55 The Secretary of State must act according to the Historic Environment section of EN-1 when assessing effects on the historic environment.
- 2.9.56 The Secretary of State must act in accordance with EN-5 (in particular Section 2.11) when assessing the landscape and visual effects resulting from the energy transmission infrastructure associated with the proposed nuclear infrastructure.
- 2.9.57 The Secretary of State must not expect the visual impacts associated with the proposed nuclear infrastructure to be completely eliminated with mitigation.

Socioeconomic

- 2.9.58 The Socio-Economic Impacts section of EN-1 sets out the generic socioeconomic impacts of major energy infrastructure. In addition, policy specific to nuclear infrastructure proposals are stated below.
- 2.9.59 EN-1 sets out that the construction, operation and decommissioning of energy infrastructure may have socioeconomic impacts. This includes the creation of long-term jobs and training opportunities in the region. In addition, radioactive waste and spent fuel storage may have socioeconomic impacts. It is noted that nuclear infrastructure may involve large scale construction projects at the beginning of their life.
- 2.9.60 Some nuclear infrastructure may be located on the coast and/or could affect access of rights of way (e.g. coast paths). The Land Use, Including Open Space, Green Infrastructure, and Green Belt section of EN-1 sets out the expectation for applicants to mitigate impacts on rights of way and to consider what opportunities there may be to improve access.

Applicant Early Engagement:

- 2.9.61 The applicant should engage with relevant statutory bodies at an early planning stage to understand the steps they may have to take to secure Development Consent. On socioeconomic impacts, this early engagement should include consultation with the Planning Inspectorate and relevant local authorities on how Good Design principles may enable the nuclear infrastructure to maximise its positive contribution to the character and welfare of its host location and community.

Applicant Assessment:

- 2.9.62 The applicant must assess the socioeconomic the impact of the construction, operation and decommissioning of the proposed nuclear infrastructure, according to the Socio-Economic Impacts section of EN-1.
- 2.9.63 Through the Environmental Impact Assessment, in accordance with the Socio-Economic Impacts section of EN-1 and in consultation with the local authority,

the applicant should identify at local and regional levels any socioeconomic impacts associated with the construction, operation and decommissioning of the proposed nuclear infrastructure. This assessment should demonstrate that the applicant has taken account of, amongst other things, potential pressures on local and regional resources, population change and economic benefits.

Mitigation:

- 2.9.64 The applicant must refer to the Socio-Economic Impacts section of EN-1 when determining the mitigation measures for the socioeconomic impacts of major energy infrastructure they include in their proposals.
- 2.9.65 The applicant must apply the principles of Good Design to mitigate negative socioeconomic impacts and make a positive contribution to the character and welfare of host communities, where reasonably practicable.

Secretary of State Decision Making:

- 2.9.66 The Secretary of State must refer to the Socio-Economic Impacts section of EN-1 when considering the socioeconomic impacts of major energy infrastructure.

Human health and wellbeing

- 2.9.67 The Health section of EN-1 sets out the generic health impacts of major energy infrastructure. Policy specific to nuclear infrastructure development is set out below.
- 2.9.68 The sites of nuclear infrastructure may be in rural areas and/or near a body of water and therefore there is the potential for impact on land that has recreational and amenity value. As a result, this Section should be read in conjunction with the Land Use, Including Open Space, Green Infrastructure, and Green Belt section of EN-1.
- 2.9.69 The operation of nuclear infrastructure is unlikely to be associated with significant noise, vibration or air quality impacts. There may be local impacts due to increased transport activities.
- 2.9.70 Radiation from nuclear infrastructure requires careful management during and beyond the operational life of the infrastructure. However, safety systems in place in the designs of nuclear infrastructure and compliance with the UK's robust legislative and regulatory regime means that the risk³⁰ of radiological health detriment posed by nuclear infrastructure (both during normal operation and as a result of an unplanned release) is extremely small; radiation released

³⁰ This risk has been considered for all stages of the development – operation, decommissioning and the storage, transportation or disposal of radioactive waste.

by human activity, including nuclear energy generation, into the environment contributes to less than 0.2% of the dose to the UK population.^{31, 32}

- 2.9.71 In common with other major industrial processes, the construction, operation and decommissioning of nuclear infrastructure could affect health care provision. For example, the facility could increase demand on health monitoring services.
- 2.9.72 There could be positive effects for health and wellbeing resulting from the positive socioeconomic benefits of nuclear infrastructure (see Socioeconomic Impacts in paragraphs 2.9.57 to 2.9.65 of this National Policy Statement).

Applicant Early Engagement:

- 2.9.73 The applicant should work with the local authority and the local integrated care system (in England) or the health board (in Wales) to identify any potentially significant health impacts and appropriate mitigation measures. Where such measures relate to better public information on the extent of risk in relation to radiological hazard, the applicant should consult the UK Health Security Agency on the appropriate standards for radiological protection.

Applicant Assessment:

- 2.9.74 The applicant should assess the impact of the construction, operation and decommissioning of the proposed nuclear infrastructure on human health and wellbeing, in accordance with the Health section of EN-1.

Mitigation:

- 2.9.75 The applicant must adequately mitigate the risk to health and wellbeing, taking into account, and placing substantial weight on, advice from the Office for Nuclear Regulation and in compliance with their permitting and licensing requirements.

Secretary of State Decision Making:

- 2.9.76 The Secretary of State must act in accordance with the Health Section of EN-1; and should consider the positive effect of employment and other socioeconomic impacts on human health and wellbeing.

³¹ The annual Radioactivity in Food and the Environment (RIFE) report assesses radiation doses received by members of the public from all sources and show that these remain well below the statutory dose limit. RIFE reports are produced jointly by the Environment Agency, Natural Resources Wales, the Centre for Environment Fisheries and Aquaculture Science and the Food Standards Agency.

³² Ionising Radiation Exposure of the UK, 2016, p34: <https://www.gov.uk/government/publications/ionising-radiation-exposure-of-the-uk-population-2010-review>

- 2.9.77 The Secretary of State must have regard to the Regulatory Justification decision when considering impacts on human health and wellbeing.
- 2.9.78 The Secretary of State should act on the basis that the UK's strict legislative and regulatory regime (including the consideration of population density and characteristics as part of the site licensing process) will be properly applied and enforced to protect human health.

Traffic and Transport

- 2.9.79 Nuclear infrastructure requires secure and efficient transportation routes for the delivery of infrastructure components and staff during construction, the movement of staff, fuel, materials, waste and equipment during operation and decommissioning.
- 2.9.80 Significant transport infrastructure includes:
- A. motorways, major highways (for example A roads), trunk roads and the primary route network
 - B. strategic rail network
 - C. airports
 - D. ports

Applicant Early Engagement:

- 2.9.81 Applicants should consult Local Authorities, National Highways and Highways Authorities as appropriate regarding assessment and mitigation.
- 2.9.82 Applicants should also consider consulting with local authorities and the environmental health team if vehicle congestion might impact air quality.

Applicant Assessment:

- 2.9.83 The applicant must assess that availability of transport infrastructure to support the construction, operation and decommissioning of the proposed nuclear infrastructure.
- 2.9.84 Applicants should assess any possible disruption which could include delays, closures, rerouting, and reduced capacity due to maintenance, construction, adverse weather conditions, or unexpected incidents to transport services and infrastructure (such as road, rail and airports).
- 2.9.85 Applicants should consider the potential harm traffic can cause to habitats and designated areas due to its impact on air and water quality during the construction, operation and decommissioning phase, and how this could be mitigated.

- 2.9.86 Further guidance on applicant assessment is set out in the Traffic and Transport section of EN-1.

Mitigation:

- 2.9.87 The applicant must include within their proposals measures to ensure the proposed development will not have an unacceptable adverse impact on significant transport infrastructure, taking into account any local authority impact report.
- 2.9.88 The applicant should prepare a travel plan including demand management and monitoring measures to mitigate transport impacts. Further mitigation guidance is set out in the Hazardous Substances section of EN-1.
- 2.9.89 Where mitigation is needed, possible demand management measures must be considered. This could include identifying opportunities to:
- A. reduce the need to travel by consolidating trips
 - B. locate development in areas already accessible by active travel and public transport
 - C. provide opportunities for shared mobility
 - D. re-mode by shifting travel to a sustainable mode that is more beneficial to the network
 - E. retime travel outside of the known peak times
 - F. reroute to use parts of the network that are less busy
 - G. identify wildlife habitats that could be affected by traffic (e.g. emissions and noise) and implement reasonably practicable measures to mitigate this impact

Secretary of State Decision Making:

- 2.9.90 The Secretary of State must be satisfied that the applicant has mitigated the impacts on the surrounding transport infrastructure, including during the construction phase of the development, and by enhancing active, public and shared transport provision and accessibility.
- 2.9.91 The Secretary of State must only refuse Development Consent on traffic and transport 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.

3 Glossary

This glossary sets out the most frequently used terms in this National Policy Statement. There is a glossary in each of the energy National Policy Statements. The glossary set out in each of the technology specific National Policy Statements may also be useful when reading this National Policy Statement.

Associated development	Associated development as defined in Section 115 of the Planning Act 2008
Critical National Priority	A policy set out in the Critical National Priority for Low Carbon Infrastructure section of EN-1 which applies a policy presumption that, subject to any legal requirements (including under section 104 of the Planning Act 2008), it is likely that the urgent need for Critical National Priority Infrastructure to achieving our energy objectives, together with the national security, economic, commercial, and net zero benefits, will outweigh any other residual impacts not capable of being addressed by application of the mitigation hierarchy, in all but the most exceptional circumstances. Critical National Priority Infrastructure is defined as nationally significant low carbon infrastructure. Low carbon infrastructure means: • for electricity generation, and all onshore and offshore enabling electricity generation that does not involve fossil fuel combustion (that is, renewable generation, including anaerobic digestion plants, provided they meet existing definitions of low carbon; and nuclear generation), as well as natural gas fired generation which is carbon capture ready. • for electricity grid infrastructure, all power lines in scope of EN-5 including network reinforcement and upgrade works, and associated infrastructure such as substations. This is not limited to those associated specifically with a particular project, because all new grid projects have a role in, that are required to efficiently constructing, operating and connecting low carbon infrastructure to the National Electricity Transmission System. • for other energy infrastructure technologies, fuels, pipelines and storage infrastructure which fits within the normal definition of “low carbon”, such as hydrogen production and distribution, and carbon dioxide distribution. • for energy infrastructure which are directed into the NSIP regime under section 35 of the Planning Act 2008, and fit within the normal definition of “low carbon”, such as interconnectors, Offshore Hybrid Assets, or ‘bootstraps’ to support the onshore network which are routed offshore; and

- Lifetime extensions of nationally significant low carbon infrastructure, and repowering of projects.

Factors Influencing Site Selection (criteria)	Criteria to assess and exclude unsuitable locations for nuclear infrastructure, and identify sites which offer opportunities to minimise cost and complexity during construction, operation, decommissioning, the storage of radioactive waste and spent fuel, and the application of the Mitigation Hierarchy to Impacts.
Gigawatt	One billion watts
Habitats Regulations	The Conservation of Habitats and Species Regulations 2017 and the Conservation of Offshore Marine Habitats and Species Regulations 2017
Habitats site	Any site which would be included within the definition at regulation 8 of the Conservation of Habitats and Species Regulations 2017 for the purpose of those regulations, including candidate Special Areas of Conservation, Sites of Community Importance, Special Areas of Conservation, Special Protection Areas and any relevant marine sites.
Impacts (criteria)	The harms that result from development that require consideration and the application of the Mitigation Hierarchy after the site has been assessed and selected.
Marine Conservation Zone	Areas that protect a range of nationally important, rare or threatened habitats and species. Marine Conservation Zones are established under section 116(1) of the Marine and Coastal Access Act 2009
Mitigation hierarchy	The process by which developers address Impacts by avoiding harm, mitigating harm which cannot reasonably be avoided, and compensating for harm which cannot reasonably be avoided or mitigated.
Marine Protected Area	A term used to describe the network of habitat sites, Sites of Special Scientific Interest and Marine Conservation Zones in the English and Welsh marine environment.
Nuclear Regulators	The regulators for the design, construction, operation and decommissioning of nuclear infrastructure and the transport of nuclear material. These include the Environment Agency (EA), Natural Resources Wales (NRW), the Scottish Environmental Protection Agency, the Marine Management Organisation (MMO), the Office for Nuclear Regulation (ONR) and the Department for Transport (DfT).
Statutory Nature Conservation Bodies	Bodies responsible for advising the government on, and the administration of, nature conservation. Bodies include Natural England (NE, England), Natural Resources Wales (NRW, Wales),

NatureScot (NS, Scotland) and the Joint Nature Conservation Committee (JNCC, UK wide).

Technical
Considerations

Issues relating to the feasibility of the site for nuclear infrastructure deployment which require further consideration during the design of the proposed infrastructure, once the site has been assessed and selected.

This publication is available from: www.gov.uk/official-documents

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